TCRP
## SYNTHESIS 99

Uses of Social Media in Public Transportation

A Synthesis of Transit Practice

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

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TRANSPORTATION RESEARCH BOARD

TRANSIT COOPERATIVE RESEARCH PROGRAM

The nation's growth and the need to meet mobility, environmental, and energy objectives place demands on public transit systems. Current systems, some of which are old and in need of upgrading, must expand service area, increase service frequency, and improve efficiency to serve these demands. Research is necessary to solve operating problems, to adapt appropriate new technologies from other industries, and to introduce innovations into the transit industry. The Transit Cooperative Research Program (TCRP) serves as one of the principal means by which the transit industry can develop innovative near-term solutions to meet demands placed on it.

The need for TCRP was originally identified in TRB Special Report 213—Research for Public Transit: New Directions, published in 1987 and based on a study sponsored by the Federal Transit Administration (FTA). A report by the American Public Transportation Association (APTA), Transportation 2000, also recognized the need for local, problem-solving research. TCRP, modeled after the longstanding and successful National Cooperative Highway Research Program, undertakes research and other technical activities in response to the needs of transit service providers. The scope of TCRP includes a variety of transit research fields including planning, service configuration, equipment, facilities, operations, human resources, maintenance, policy, and administrative practices.

TCRP was established under FTA sponsorship in July 1992. Proposed by the U.S. Department of Transportation, TCRP was authorized as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). On May 13, 1992, a memorandum agreement outlining TCRP operating procedures was executed by the three cooperating organizations: FTA, the National Academy of Sciences, acting through the Transportation Research Board (TRB); and the Transit Development Corporation, Inc. (TDC), a nonprofit educational and research organization estab-

lished by APTA. TDC is responsible for forming the independent governing board, designated as the TCRP Oversight and Project Selection (TOPS) Committee.

Research problem statements for TCRP are solicited periodically but may be submitted to TRB by anyone at any time. It is the responsibility of the TOPS Committee to formulate the research program by identifying the highest priority projects. As part of the evaluation, the TOPS Committee defines funding levels and expected products.

Once selected, each project is assigned to an expert panel, appointed by TRB. The panels prepare project statements (requests for proposals), select contractors, and provide technical guidance and counsel throughout the life of the project. The process for developing research problem statements and selecting research agencies has been used by TRB in managing cooperative research programs since 1962. As in other TRB activities, TCRP project panels serve voluntarily without compensation.

Because research cannot have the desired impact if products fail to reach the intended audience, special emphasis is placed on disseminating TCRP results to the intended end users of the research: transit agencies, service providers, and suppliers. TRB provides a series of research reports, syntheses of transit practice, and other supporting material developed by TCRP research. APTA will arrange for workshops, training aids, field visits, and other activities to ensure that results are implemented by urban and rural transit industry practitioners.

The TCRP provides a forum where transit agencies can cooperatively address common operational problems. The TCRP results support and complement other ongoing transit research and training programs.

TCRP SYNTHESIS 99

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The members of the technical panel selected to monitor this project and to review this report were chosen for their special competencies and with regard for appropriate balance. The report was reviewed by the technical panel and accepted for publication according to procedures established and overseen by the Transportation Research Board and approved by the Governing Board of the National Research Council.

The opinions and conclusions expressed or implied in this report are those of the researchers who performed the research and are not necessarily those of the Transportation Research Board, the National Research Council, or the program sponsors.

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The **Transportation Research Board** is one of six major divisions of the National Research Council. The mission of the Transportation Research Board is to provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal. The Board's varied activities annually engage about 7,000 engineers, scientists, and other transportation researchers and practitioners from the public and private sectors and academia, all of whom contribute their expertise in the public interest. The program is supported by state transportation departments, federal agencies including the component administrations of the U.S. Department of Transportation, and other organizations and individuals interested in the development of transportation. **www.TRB.org**

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FOREWORD

Transit administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

There is information on nearly every subject of concern to the transit industry. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and to make it available to the entire transit community, the Transit Cooperative Research Program Oversight and Project Selection (TOPS) Committee authorized the Transportation Research Board to undertake a continuing study. This study, TCRP Project J-7, "Synthesis of Information Related to Transit Problems," searches out and synthesizes useful knowledge from all available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute a TCRP report series, *Synthesis of Transit Practice*.

This synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems.

PREFACE

By Donna L. Vlasak
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This synthesis explores the use of social media among transit agencies and documents successful practices in the United States and Canada. Social media are defined as a group of web-based applications that encourage users to interact with one another, such as blogs, Facebook, LinkedIn, Twitter, YouTube, Flickr, Foursquare, and MySpace. Transit agencies have begun to adopt these networking tools to provide transit information as timely update, public service, citizen engagement, employee recognition, and entertainment.

A review of the relevant literature was conducted. Because the field is new, there is not yet a large body of research available on social media. Relevant information was obtained from online sources, including blog posts, websites, conference presentations, online journals, and publications covering technology and governance.

A selected survey of transportation providers in the United States and Canada known to use one or more social media platforms, and located in large metro, small urban, and rural areas, yielded a 90% response rate (34 of 39). Six transit providers participated in telephone interviews, highlighting more in-depth and additional details on successful practices, challenges, and lessons learned. These included providers in San Francisco, California; Dallas, Texas; Allentown, Pennsylvania; New York, New York; Morgantown, West Virginia; and Vancouver, British Columbia.

Susan Bregman, Oak Square Resources, LLC, Brighton, Massachusetts, collected and synthesized the information and wrote the report, under the guidance of a panel of experts in the subject area. The members of the topic panel are acknowledged on the preceding page. This synthesis is an immediately useful document that records the practices that were acceptable within the limitations of the knowledge available at the time of its preparation. As progress in research and practice continues, new knowledge will be added to that now at hand.

CONTENTS

Note: Many of the photographs, figures, and tables in this report have been converted from color to grayscale for print-
ing. The electronic version of the report (posted on the Web at www.trb.org) retains the color versions.

SUMMARY

USES OF SOCIAL MEDIA IN PUBLIC TRANSPORTATION

Social media provide transit agencies with an unparalleled opportunity to connect with their customers. These connections may take many forms, but they all can help agencies personalize what can otherwise appear like a faceless bureaucracy. "Social media," also called social networking or Web 2.0, refers to a group of web-based applications that encourage users to interact with one another. Examples include blogs, social and professional networking sites such as Facebook and LinkedIn, micro-blogging site Twitter, media-sharing sites such as YouTube and Flickr, and location-based sites such as Foursquare. Transit agencies have begun to adopt these networking tools, and their reasons for doing so typically fall into five broad categories.

- **Timely updates**—Social media enable agencies to share real-time service information and advisories with their riders.

- **Public information**—Many transit organizations use social media to provide the public with information about services, fares, and long-range planning projects.

- **Citizen engagement**—Transportation organizations are taking advantage of the interactive aspects of social media to connect with their customers in an informal way.

- **Employee recognition**—Social networking can be an effective tool for recognizing current workers and recruiting new employees.

- **Entertainment**—Lastly, social media can be fun. Agencies often use social media to display a personal touch and to entertain their riders through songs, videos, and contests.

This synthesis explores the use of social media among transit agencies and documents successful practices in the United States and Canada. Information was gathered through a literature review, an online survey, and case examples. Because the field of social media is still evolving, the literature review featured information from online sources, including blog posts, websites, conference presentations, and electronic journals and publications covering technology and governance. Thirty-nine transportation providers in the United States and Canada were invited to participate in an online survey. Only transit organizations known to use one or more social media platforms were asked to participate. Responses were received from 34 transit operators in the United States and Canada and one U.S. transportation management association, for a response rate of 90%. Based on survey results, six case examples were developed to describe innovative and successful practices in more detail. Case example interviews were conducted by telephone.

Despite the stated advantages to using social networking, industry experts and survey respondents identified a series of barriers and concerns, including the following:

- **Resource requirements**—Although setting up social media sites is generally free, web pages require ongoing maintenance and monitoring. Agencies respond-

ing to the survey said that staff availability was the greatest barrier to adopting social media.

- **Managing employee access**—As the line between personal and professional lives continues to soften, public- and private-sector organizations are taking actions to address employee use of social media.

- **Responding to online criticism**—Survey respondents expressed concern that social media would expose them to criticism from frustrated riders and disgruntled employees.

- **Accessibility**—Internet accessibility for people with disabilities has improved substantially over the past few years, but social media applications have not completely caught up. The heavy reliance on graphics, videos, and user-generated content has created accessibility challenges.

- **Security**—Information technology professionals and Internet security experts are increasingly concerned that social media can increase an organization's exposure to a range of cyber threats, from spam to malware.

- **Archiving and records retention**—Industry analysts believe it is only a matter of time before social media posts become subject to the same record-keeping and disclosure rules that apply to e-mail and paper records.

- **User privacy**—Although public agencies generally have privacy policies governing collection and use of personal information on their own websites, social media sites on third-party platforms are typically governed by the privacy policy of the application.

- **Changing social media landscape**—Expert opinions about the future of social media vary, but all agree that interactive media are here to stay. The challenge for transit organizations is to keep track of changes in this dynamic environment and to adapt accordingly.

Although the practice is not universal, many public agencies have adopted social media policies to provide guidance for addressing some or all of these issues. Among the agencies responding to the survey, 27% had a social media policy, while more than half (58%) had one in development.

Surveyed agencies identified resource requirements as a particular concern. To gain a better understanding of resource requirements, agency responses were analyzed based on operating setting (large urban versus small urban/rural). As might be expected, large urban agencies devoted more staff resources to social media than those operating in smaller environments. More than half of the large urban agencies responding to this question allocated at least 40 hours, or the equivalent of one week per month, to social media activities; 23% reported an investment of more than 80 hours per month. Small agencies generally devoted less staff time to social media and the vast majority (86%) reported a commitment of 40 hours per month or fewer.

Surveyed agencies offered a wealth of advice and lessons learned through the online survey and the follow-up case examples. Key lessons are summarized here.

- **Keep social media in perspective**—For many agencies, social media users are believed to represent only a small segment of the rider population. Although this market is likely to grow in the future, agencies still stressed the importance of integrating social media with more traditional forms of rider communication.

- **Consider the organizational impacts**—Several agencies emphasized the importance of obtaining the necessary internal approvals before implementing social media campaigns.

- **Identify the real costs**—While social media applications are generally free, or require minimal investment, the long-term costs of maintaining the sites can be substantial in terms of staff requirements.

- **Find the right voice**—The language of social media tends to be informal and conversational. Agencies recommended avoiding jargon, using humor if possible, and generally sounding like a person instead of an agency. Although everyone makes mistakes, agencies also emphasized the importance of acknowledging errors and taking responsibility.

- **Listen, listen, listen**—Social media can provide agencies with unfiltered customer feedback. If they are willing to listen to their riders, agencies can learn what they are doing right and what they are doing wrong.

- **Respect the strengths of social media**—Social media are not simply a new channel for traditional communications. The agencies using social media

most successfully tailored their messages to take advantage of the unique strengths of each social medium platform. Twitter, for example, can be best for immediate communications, although blogs may encourage more in-depth conversations.

- **Have fun**—Posting entertaining content can remind customers about the people behind the agency's seemingly impenetrable brick wall and help the organization build stronger relationships with its community of riders and stakeholders.

- **Just get started**—Agencies followed different paths to social media. Some agencies used a measured approach, and others have just jumped in. However, no matter how they got there, agencies agreed that social media were worth trying.

The synthesis study identified several gaps in knowledge or areas for additional research. These are summarized here.

- **Social media policy**—Although industry experts believe that having a social media policy is critical, only one out of four transit properties participating in the survey had such guidance in place. Additional research could help to identify elements of a social media policy that are relevant to public transit agencies.

- **Social media metrics**—Most of the surveyed agencies measured the effectiveness of their social media activities by using built-in metrics, such as counting "friends" or followers, and by using a third-party application

such as Google Analytics. Although these metrics can provide a good overview of activity, they do not provide the information agencies may need to better understand the effectiveness of their social media activities. Additional research could provide transit agencies with the tools for estimating the costs and benefits of social media, perhaps by including sample metrics or performance indicators drawn from other industries.

- **Internet security**—Industry experts consistently emphasized the vulnerability of social media applications to security threats, including viruses and malware. Additional research could help determine whether social media leave transit agencies especially vulnerable to cyber-threats and, if so, recommend appropriate actions.

- **Access for people with disabilities**—While federal agencies are required to conform to Section 508 accessibility guidelines for their web applications, some analysts argue that these rules do not apply to government use of privately owned social media sites such as Twitter and Facebook. Additional research could help organizations identify features to improve the accessibility of social media sites and contribute to the debate about how federal accessibility rules apply to social media.

- **Multicultural issues**—The characteristics of social media users are not yet well documented and questions remain about whether social media platforms can bridge the digital divide, or the perceived gap between people who have access to information

technology and those who do not. Although not conclusive, research suggests that social media attract users from multiple demographic categories. Further research could provide more data on the demographics of social media users and help determine whether public transportation agencies need to take additional actions to ensure that all riders can access online information and social networking sites.

- **Integration with other agency activities**—Despite the growth in mobile applications and traveler and citizen information services, only a few responding agencies reported integrating social media with these programs. Additional research could quantify the potential for better coordinating social media with other platforms for providing agency information.

- **Revenue potential**—Industry experts anticipate growth in several areas, including location-based technology and social-buying services. Additional research could help identify revenue opportunities associated with these applications.

CHAPTER ONE
INTRODUCTION

OVERVIEW

Social media, also called social networking or Web 2.0, are a group of web-based applications through which users interact with one another. Many transit agencies have begun to incorporate social media into their marketing and communications strategies. Reasons for doing so vary, but goals for using these channels include communicating with current riders, reaching out to potential riders, developing stronger community connections, and enhancing the agency's branding and messaging. Some organizations also use social media applications to support customer service and to obtain feedback from stakeholders on services and programs.

While providing these benefits, social networking applications can also pose specific challenges for transit agencies, including content management and strategies for addressing online criticism; estimating resource requirements for managing social media and staffing; developing techniques to measure the costs and benefits; and ensuring that social media applications are accessible to people with disabilities and individuals who do not have ready access to personal technology such as smart phones and high-speed Internet. Agencies also face legal and security concerns, including online security, privacy protections, and complying with requirements for transparency and records retention.

This synthesis explores these issues and documents successful practices among transit properties in the United States and Canada. Because the field is changing so rapidly, the issues and challenges examined in this report could be considered a snapshot of the conditions when the study was conducted.

SYNTHESIS METHODOLOGY

A review of relevant literature was combined with findings from a survey of selected transit agencies. Based on survey results, several case examples were developed to describe innovative and successful practices in more detail.

Literature Review

Because social media are still relatively new (Facebook was launched in 2004, for example, and Twitter came along two years later), there is not yet a large body of academic research. Instead, much of the relevant information about social media was obtained from online sources. These included blog posts, websites, conference presentations, and online journals and publications covering technology and governance.

Survey

Thirty-nine transportation providers in the United States and Canada were invited to participate in an online survey. Only transit organizations known to use one or more social media platforms were asked to participate. Responses were received from 34 transit operators in the

United States and Canada and one U.S. transportation management association, a response rate of 90%.

Respondents represented 18 U.S. states, the District of Columbia, and five Canadian provinces (see Appendix A and Figure 1). Most agencies (80%) were located in large metropolitan areas, defined as urbanized areas with a population of 200,000 or more; 17% were in small urbanized areas (population 50,000–200,000). Only one agency (3%) was located in a rural area. All transit modes were represented, including rail, bus, vanpool, demand-response, and ferry. Annual ridership ranged from fewer than 500,000 trips to more than 2 billion. Survey findings are incorporated in chapters three through six.

Case Examples

Six transit organizations were selected from the survey respondents for follow-up telephone interviews, using the following criteria: (1) include transit agencies of different sizes in different parts of the United States and Canada; (2) include a mix of early adopters and newcomers to social media; and (3) incorporate agencies using different social media strategies. The following six transit properties agreed to participate:

- Bay Area Rapid Transit (BART)—San Francisco, California
- Dallas Area Rapid Transit (DART)—Dallas, Texas
- Lehigh and Northampton Transportation Authority (LANTA)—Allentown, Pennsylvania

- Metropolitan Transportation Authority (MTA)—New York, New York
- Mountain Line—Morgantown, West Virginia
- TransLink—Vancouver, British Columbia.

FIGURE 1. Locations for survey respondents and case examples.

The case examples explored issues raised in the survey responses in more depth and provided additional details on successful practices, challenges, and lessons learned. Chapter five presents findings from the case examples.

REPORT ORGANIZATION

This report is organized as follows. Chapter one introduces the study. Chapter two presents an overview of social media based on a review of relevant literature, covering government use of social media, the demographic characteristics of social media users, and social media metrics. Chapter three presents survey findings and focuses on how transit agencies use social media to address agency goals and to reach different markets. Chapter four identifies some common barriers to using social media and presents strategies gleaned from printed and electronic publications as well as the study survey. Chapter five presents the findings from six case examples conducted for this study. Finally, chapter six summarizes overall findings and directions for further research. A glossary of relevant terms follows the body of the report. References follow the Glossary. Appendix A lists the survey respondents and Appendix B presents the survey instrument.

CHAPTER TWO

LITERATURE REVIEW: OVERVIEW OF SOCIAL MEDIA

This chapter presents an overview of social media, based primarily on findings from the literature review. It includes a brief description of social media, highlights how government uses social media, presents the demographics of social media users, and describes approaches to measuring the impacts of these applications.

WHAT ARE SOCIAL MEDIA?

Social media is a term that refers to a number of web-based applications through which users interact with one another. Interactivity is what distinguishes social networking sites from traditional (or "static") websites. Social media applications encourage users to share their experiences, opinions, knowledge, and sometimes their locations. These connections can contribute to a sense of engagement or loyalty among social media users. Figure 2 compares the characteristics of traditional media and social media. As the figure shows, traditional media approaches are centralized and focus on delivering one or more messages to customers. Social media methods are collaborative and rely on sharing information and soliciting feedback for their effectiveness. Using traditional media—distributing press releases, granting interviews, etc.—the organization tries to control the message. Using social media, such as YouTube and Twitter, organizations can post information that individuals can share, comment on, and sometimes modify (1).

Following are examples of social media platforms commonly used by transit agencies. All quotations from social media sites were accessed from public posts between July 2010 and June 2011. Sources include www.facebook.com, www.twitter.com, and www.youtube.com. Spelling and typographical errors were corrected.

- **Blogs,** or web logs, where individuals or organizations post commentary or news, frequently on a particular topic, and often invite comments and feedback. The Los Angeles County Metropolitan Transportation Authority (LA Metro) publishes a daily blog called The Source to provide news and stories of interest to its riders; El Pasajero is the agency's companion Spanish-language blog.

- **Social and professional networking sites** that encourage members to connect with one another, such as Facebook, MySpace, LinkedIn, and Gov-Loop. Many transit properties maintain a Facebook page to provide service information and updates, including LANTA, DART, and Community Transit in Everett, Washington.

- **Micro-blogging sites,** primarily Twitter, which allow users to post comments and web links in a format limited to 140 characters. Some transit agencies, such as the Washington Metropolitan Area Transit Authority (WMATA), find Twitter especially well suited for providing real-time service updates, while Vancouver's TransLink uses the platform to provide customer service.

- **Media**—and document-sharing sites where members post and share video clips (YouTube), documents (Scribd), and photographs (Flickr). DART makes extensive use of YouTube to build community support for its services, whereas MTA maintains an image library on Flickr for media use. LA Metro's Dorothy Peyton Gray Transportation Library and Archive maintains a collection of historic planning documents on Scribd.

- **Geolocation applications,** such as Foursquare, enable users to share their location with other members of their social network and to earn virtual "badges" for checking into sites. Both BART and TransLink have collaborated with Foursquare to develop transit-specific badges for their riders.

A glossary of social media terms can be found at the end of this report.

GOVERNMENT USE OF SOCIAL MEDIA

Transit agencies are not alone in their use of social media. Agencies and officials at all levels of government, from city hall to the White House, use social media. According to the Human Capital Institute, 66% of government agencies used some form of social networking in 2009, and 65% of those used more than one tool. LinkedIn, Facebook, and Twitter were the most commonly used web-based tools among these agencies (*2*).

The Urban Transportation Monitor surveyed transportation organizations about their use of social media (*3*). Asked

what social media platforms they used, about half of the *UTM* respondents named Facebook (54%) and Twitter (51%); 37% used YouTube. Just over half (51%) said they used another application. Twitter was most commonly used for brief communications and service updates. Facebook was used for announcements and service updates, but also for meeting

Traditional Media	Social Media
Customer	Collaborator
Talk to	Talk with
Selling	Sharing
Voice=Company	Voice=Citizen
More expensive	Less expensive
Professional media outlets	User-generated content
Push marketing	Pull marketing
Broader market	Targeted markets
Static content	Evolving content
Short lived	Long life
One-sided	Multiple opinions

Source: Funk/Levis & Associates.

FIGURE 2. Comparison of traditional media and social media.

notices, community-building, and branding. YouTube videos covered a wide range of topics, including how-to-ride information, project updates, agency promotions, and agency stories and testimonials. Organizations used blogs to promote more in-depth discussion, while LinkedIn was used for networking and recruiting purposes.

WHY USE SOCIAL MEDIA?

HCI reports that government agencies at the state, federal, and local levels use social networking for a wide range of purposes, including employee learning and development (44%), communications and public relations (44%), recruiting (38%), and support functions such as human relations, training, and finance (35%). The National Association of State Chief Information Officers (NASCIO) surveyed U.S. states and territories about their use of social media (4). Among 43 agencies responding to the survey, the primary reasons for using social media cited include citizen engagement (98%) and public information and outreach (93%). More than half of the agencies responding also selected open government (67%) and business engagement (54%) as important goals. NASCIO's survey indicated that many government organizations routinely use social media for public safety and emergency notifications, although the survey did not specifically cover this application. A survey conducted for FHWA had similar findings (5). State departments of transportation reported using Web 2.0 technologies to provide information and to build communities around transportation issues. A few agencies also used collaborative Web 2.0 apps such as mashups, wikis,

Sharepoint sites, Google groups, and Google documents for planning and administration.

Officials from the 43 organizations responding to the UTM survey cited multiple reasons for using social media. Survey responses included: (1) engaging customers at a low cost to the agency; (2) keeping stakeholders up to date about service issues, planning, and other time-sensitive information; (3) allowing customers to bypass agency bureaucracy; (4) making the agency appear more "hip" when communicating with a large student population; and (5) reaching people where they are already communicating rather than requiring them to visit the agency website for information.

Among transit agencies, reasons for using social media typically fall into five broad categories, which are summarized here. Figure 3 illustrates some examples.

Timely Updates

Social media provide agencies with an unparalleled opportunity to share information with their customers, often in real-time. Twitter is exceptionally well suited to providing service alerts, and many transit operators use it for this purpose. Blogs and Facebook also allow organizations to update readers about a board meeting, a fare increase, or a new route. For example, the Toronto Transit Commission uses Twitter to relay service updates, whereas MTA uses Twitter to remind the public about scheduled board meetings and to direct them to a live webcast.

Public Information

Many transit organizations use social media to provide general information about services, fares, and long-range planning projects. For example, the Regional Transportation Commission of Southern Nevada posted a YouTube video to showcase the features of its new fleet of double-decker buses, and the Utah Transit Authority is one of several agencies to use social media to highlight local destinations and events that can be reached by transit. At the federal level, U.S. Transportation Secretary Ray LaHood uses Twitter, Facebook, YouTube, and his *Fast Lane* blog to provide information about department initiatives; periodically he answers constituent questions about federal transportation policy through YouTube. LA Metro sets up Facebook pages for specific long-range projects and sends out live tweets during public meetings.

Citizen Engagement

Transportation organizations have taken advantage of the interactive aspects of social media to connect with their customers in an informal way. These connections can take many forms, but the goals are the same: to reach out to riders and stakeholders and to build support. For example, TransLink initially used Facebook to engage its riders in a contest to name the agency's new fare card, and Metro Transit St. Louis posts photographs of community events, such as a bus-painting day at a local elementary school, on its Flickr page.

FIGURE 3. Examples of transit-related social media sites.

Employee Recognition

Some organizations use social networking for recognizing employees and recruiting new hires. In Virginia, Hampton Roads Transit set up a LinkedIn site that allows current employees to connect with one another and enables potential employees to learn more about the organization, whereas Tulsa Transit has used Twitter to announce job openings. In Texas, the Corpus Christi Regional Transportation Author-

ity used Facebook to recognize a long-time employee on his retirement, and DART has created a series of videos for its YouTube channel that feature interviews with agency staff.

Entertainment

Lastly, social media can be fun. Agencies often use social media to put a human face on what can sometimes seem like an impenetrable bureaucracy, and they entertain their riders through songs, videos, and contests. New York's Long Island Rail Road (LIRR), among other agencies, uses YouTube to share safety information. LIRR's *The Gap Rap* is a music video starring in-house talent and local fifth-graders that reminds riders to "Watch the gap" when boarding or alighting trains; in a similar vein, the Transit Authority of River City posted a rap video to show Louisville bus riders how to use a bicycle rack.

CHARACTERISTICS OF SOCIAL MEDIA USERS

The characteristics of social media users are not yet well documented and questions remain about whether social media platforms can bridge the digital divide, or the gap between people who have access to information technology (IT) and those who do not. Although not conclusive, research suggests that social media attract users from multiple demographic categories, as summarized here.

Age and Gender

In 2010, 61% of online Americans used social networking sites (e.g., Facebook and LinkedIn)—up from 46% just the year before—and 17% used Twitter. Although the vast

majority of adults aged 18 to 29 were social networkers (86%), so were nearly half of those aged 50 to 64 (47%) and one-quarter of those 65 and over (26%). Moreover, older users are outpacing younger adults in their adoption of social media. The number of Internet users aged 50 to 64 who used a social networking site grew 88% between 2009 and 2010, and the number of users aged 65 or over doubled. In contrast, the growth rate for those aged 18 to 29 was 13% (*6*). Although part of the rapid growth rate for older users can be attributed to their smaller representation in the social space, this trend is still noteworthy.

Consistent with these findings, nearly half of Americans maintained a personal profile on at least one social networking site in 2010, which was double the proportion recorded just two years earlier. More than three of four teenagers and adults aged 18 to 24 had an online personal profile in 2010, as did 13% of those aged 65 and over (*7*) (see Figure 4). Based on statistics compiled for 19 social networking sites, the average social networker is 37 years old; adults aged 35 to 44 make up the single largest group of social networkers (25% of site visitors). Adults 45 to 54 and 25 to 34 are also major online networkers, comprising 19% and 18% of site visitors, respectively (see Figure 5).

Age distribution varies by site and tends to reflect each platform's target market. The average Facebook user is said to be 38 years old and the average Twitter user is 39 years old. Business-oriented LinkedIn attracts older users, with an average age of 44, and sites such as MySpace appeal to younger visitors (average age is 31 years old) (*8*). Most
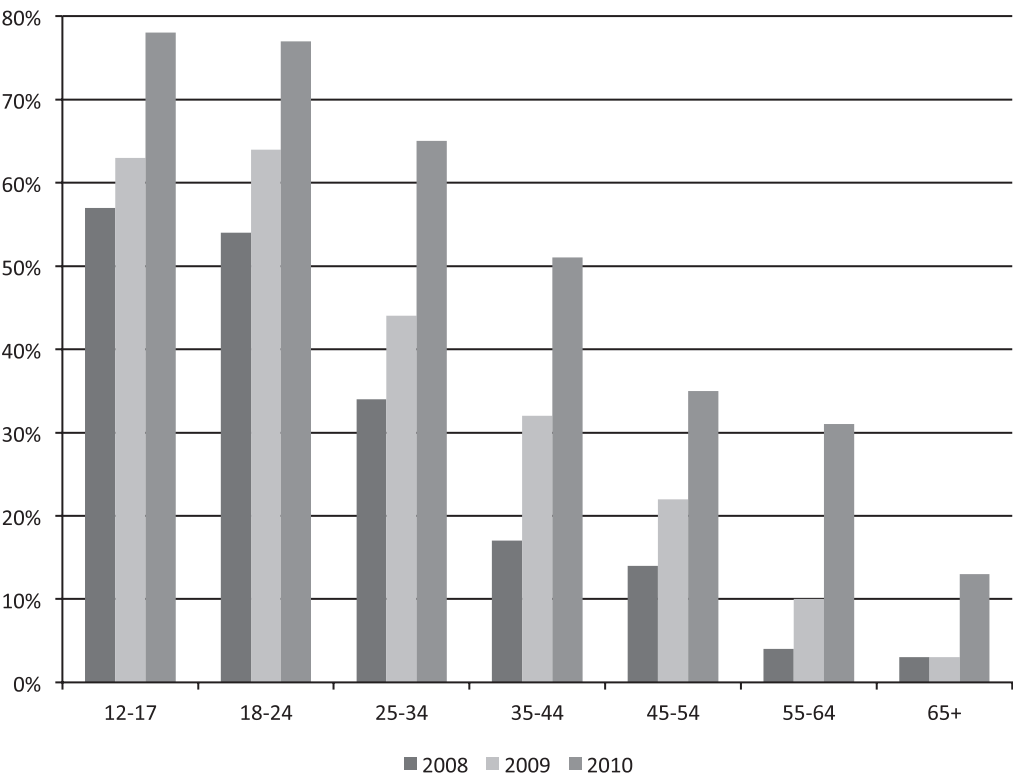
FIGURE 4. Percent by age group with a profile on a social networking site, 2008–2010 (*7*).

social networking sites have more female users than male users. Based on the same 19 social networking sites, the audience is 53% female and 47% male. On average, Twitter has 59% female users and Facebook has 57% (*9*).

However, it should be noted that these estimates are based on proprietary sources and no information is available about the methodology used. Because social media sites do not generally require proof of identity beyond a valid e-mail address, account holders may not always be truthful about characteristics such as age and gender. Indeed, they may not be persons at all. As social media use expands to advocacy, marketing, and entertainment, account holders may include
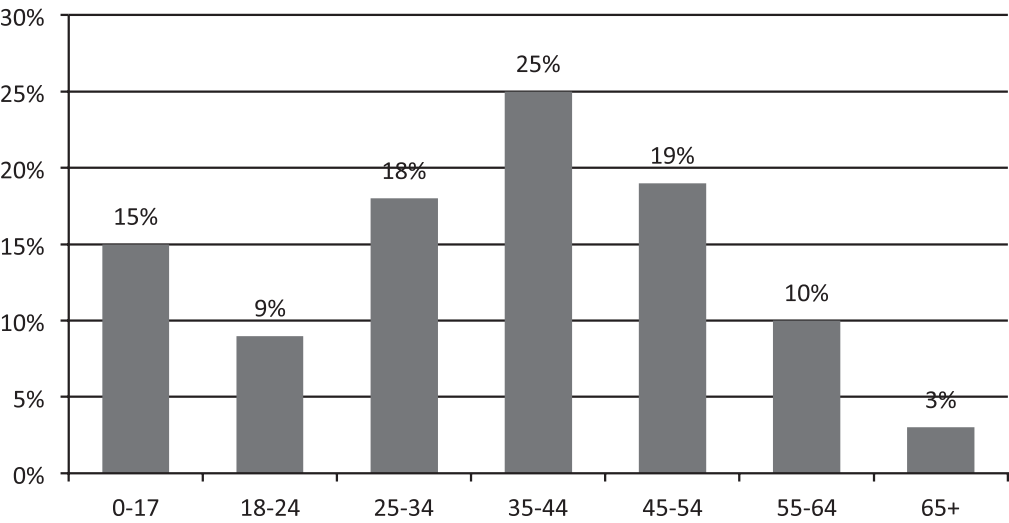
FIGURE 5. Age distribution across 19 social networking sites, 2010 (*8*).

organizations, family pets, and automated spambots.

Race and Ethnicity

A recent study from the Pew Research Center looked at Internet access by race and ethnicity (*10*). According to the study, 59% of Americans now use wireless technology such as a laptop or cell phone to access the Internet, up from 51% a year before, and minority Americans (defined by Pew Center researchers as African–Americans and English-speaking Hispanics) are outpacing Caucasian Americans in their mobile access.

As Table 1 shows, nearly two-thirds of African–Americans (64%) and Hispanics (63%) are wireless Internet users, and minority Americans are more likely to own a cell phone than their white counterparts (87% of blacks and Hispanics own a cell phone, compared with 80% of whites). Additionally, black and Hispanic cell phone

TABLE 1.
USE OF MOBILE DATA APPLICATIONS BY POPULATION GROUP, 2010

Activity	All Adults	White, Non-Hispanic	African–American, Non-Hispanic	Hispanic (English-speaking)
Own a Cell Phone	82%	80%	87%	87%
Activities among Adults with a Cell Phone:				
Take a picture	76%	75%	76%	83%
Send/receive text messages	72%	68%	79%	83%
Access the Internet	38%	33%	46%	51%
Send/receive email	34%	30%	41%	47%
Play a game	34%	29%	51%	46%
Record a video	34%	29%	48%	45%
Play music	33%	26%	52%	49%
Send/receive instant messages	30%	23%	44%	49%
Use a social networking site	23%	19%	33%	36%
Watch a video	20%	15%	27%	33%
Post a photo or video online	15%	13%	20%	25%
Purchase a product	11%	10%	13%	18%
Use a status update service	10%	8%	13%	15%
Mean number of cell phone activities	4.3	3.8	5.4	5.8

Source: Smith (*10*).

owners take advantage of a much wider array of their phones' data functions compared with white cell phone owners. Although cell phone use is not by itself an indicator of social media use, both African–Americans and Hispanics are more likely than whites to use cell phones to access the Internet, send and receive text messages, and access a social networking website (*10*). Less information is available about other demographic groups. For example, the Pew Center does not include Asians and Pacific Islanders in its standard demographic breakdowns because of their smaller representation in the U.S. population and, in some cases, the language barriers associated with interviewing these individuals (*11*).
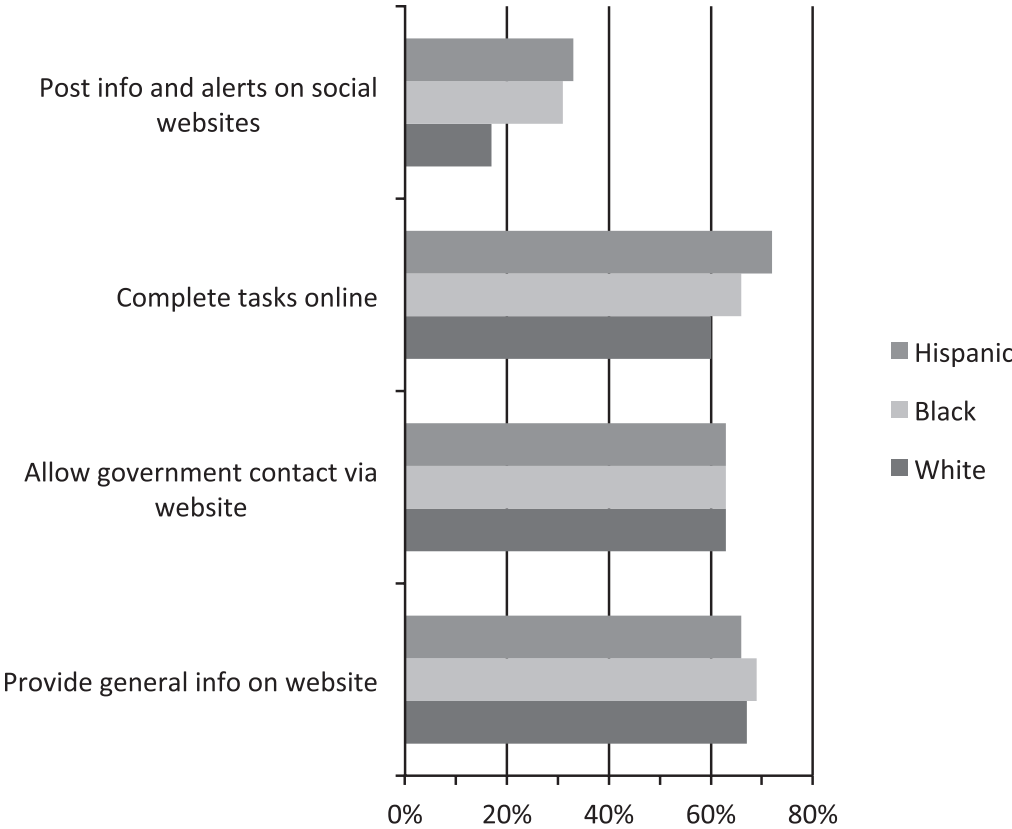
FIGURE 6. Percentage within each group saying it is "very important" for government agencies to do the above by ethnic group (12).

While this information suggests that most U.S. adults have access to the Internet, it also highlights a new potential issue for public agencies. While smart phones have made the Internet more accessible, and some even offer integration with social media applications, they pose their own usability challenges. When users access the Internet exclusively by cell phone, no matter how smart or sophisticated the device, they may not have access to all features of a website or application.

Another Pew study focuses on use of government social media sites (*12*). Although the proportion of Americans who interact with government agencies using social media sites is small, there is little difference among the three major ethnic and racial groups. Despite similar levels of activity, however, minority Americans are more likely than white Americans to believe that government use of electronic communications helps keep citizens informed and makes agencies more accessible. There was an especially large gap in attitudes toward government use of social media. Only 17% of white Americans said it was "very important" for government agencies to post information and alerts on social networks, compared to 31% of blacks and 33% of Hispanics (see Figure 6).

Education and Income

The same Pew study also showed that individuals with more education and higher household incomes were more likely to use online government services. Although the study did not highlight social media specifically, it did ask respondents whether they used tools such as blogs, e-mails, or text messages to obtain government information. Some 24% of respondents with an annual household income under $50,000 used these tools, compared with 39% of those with higher incomes. Similarly, 21% of those with a high school degree or less education accessed government information with these tools, compared to 36% of those who attended at least some college. At a minimum, these findings suggest the need for additional research on the correlation between social networking and factors such as wealth and education (*12*).

SOCIAL MEDIA METRICS

The science of measuring social media use is still evolving. Many platforms provide some level of built-in statistics. For example, Facebook counts "friends" and "likes," Twitter tracks followers and "tweets," blogging software can count subscribers and impressions, and media-sharing sites such as YouTube and Flickr track views. These applications also provide account holders with additional tools for more detailed analysis, such as Facebook Insights and YouTube Insight. For example, Facebook Insights tracks the number of views for a post. By comparing impressions for each post, users can learn which topics resonate with their Facebook followers. In addition to these prepackaged statistics, numerous free and fee-based third-party applications are available for gaining additional insight into the effectiveness of social media activities. Google Analytics, for example, is primarily used for analyzing website visits; however, this free tool also enables agencies to analyze how visitors navigate to their website (including referrals from one or more social media platforms) and what kind of information they are looking for (through search-engine keywords). By drilling down a little further into the collected statistics, agencies can learn what pages on their website are most popular among these visitors, where these readers live (city, state, and country), length of visit, and other useful characteristics. Especially common for use with Twitter, where the length of posts is constrained, link shorteners take a long web address and condense it into a short version for easier posting and forwarding. Many

of these services allow users to track the number of times readers click on the shortened link, which allows organizations to determine what links are popular and which are not. Finally, Klout is one of several applications that calculate a composite score to represent a user's social media influence, based on metrics compiled for Twitter, Facebook, and LinkedIn (*13, 14*).

Some industry experts call for more sophisticated analysis, but this can require an investment in analytic software. Owyang and Lovett argue that simply collecting data without further analysis does not allow organizations to draw meaningful conclusions (*15*). For example, they say that it is not enough to track number of blog comments. Instead, organizations could track "audience engagement," which they define as the ratio of total comments, shares, and trackbacks to total views. In other words, what percentage of viewers is taking some kind of action—either commenting on an online post, forwarding it to someone else ("shares"), or providing a link back to the post from their own social media site ("trackbacks")? Although the advice is geared toward private businesses that have the resources to purchase sophisticated software, the message applies to transit organizations as well. Counting without context does not create a complete picture of social media effectiveness.

Most of the agencies surveyed for this study reported attempting in some way to analyze the effectiveness of their social media strategies. Most relied on informal feedback (94% of reporting agencies) or tracked the number of fol-

lowers using built-in application statistics (91%). Just over half (56%) used third-party statistical applications such as Google Analytics and about 10% conducted surveys.

CHAPTER THREE

SURVEY: HOW TRANSIT AGENCIES USE SOCIAL MEDIA

INTRODUCTION

This chapter presents findings from the survey conducted for this synthesis study. The following sections describe how responding transit agencies use social media, including specific applications, goals, strategies for managing content, and integration with other agency activities.

SOCIAL MEDIA APPLICATIONS

The survey conducted for this synthesis study asked respondents which social media applications they use (multiple responses were allowed). Among the 35 organizations answering this question, the top three applications were Twitter (91% of responding agencies), Facebook (89%), and YouTube (80%).

Agencies responding to the synthesis survey used social media for a wide range of purposes. Among the most common were providing agency news, real-time alerts, and contests and promotions. Transit providers were least likely to use social media for posting job listings and soliciting comments for public hearings (see Table 2).

Survey responses suggest that agencies try to match type of content with the social media platform. This was especially apparent for real-time service alerts, where Twitter was preferred by a sizable margin (77% of responding agencies). Twitter and Facebook were the platforms of choice for dis-

seminating agency news, meeting and event notices, contests and promotions, and general service news. For feature stories, transit agencies preferred Facebook (57%) and blogs (40%). A handful of agencies reported using LinkedIn, mostly for job listings (14%) and service information (9%).

GOALS FOR USING SOCIAL MEDIA

The survey asked responding agencies to review a series of commonly stated goals for introducing social media and rate the importance of each. To help compare the goals, a weighted average was calculated for the importance of each goal using a four-point scale ("not important at all" = 1 and "very important" = 4).

The most important goal for nearly every agency was *Communicate with current riders* (italics are used to show exact question wording). All but one agency considered this goal "very important" (97% of responding agencies) and the average ranking was 4.0. Also rated "very important" were the following:

- *Improve customer satisfaction* (85% of responding agencies/average = 3.8)
- *Improve agency image* (76% of responding agencies/average = 3.7).

Recruit and keep staff was one of the least important goals for using social media. This goal received the lowest average rating, at 1.9, and 38% of responding agencies said this was "not important at all." Also unimportant for social media was *Save money*. Seventeen percent of responding

agencies said this goal was "not important at all" and the average rating was 2.6. Table 3 summarizes these responses.

TARGET MARKETS FOR SOCIAL MEDIA APPLICATIONS

Although social media channels have users in all demographic groups, survey respondents were especially likely to use these applications to reach everyday riders, along with young adults and students. As Table 4 indicates, the vast majority of responding agencies used Twitter and Facebook to reach everyday riders, young adults, and students. Most agencies also used these channels to connect with minorities, low-income communities, seniors, and people with disabilities. Respondents also used Facebook and, to a lesser extent, Twitter to communicate with external stakeholders. About half of the responding agencies reported using YouTube, mostly to reach out to everyday riders, young adults, and stakeholders. Only about one-third of agencies used blogs, primarily to connect with external stakeholders, seniors, and young adults. Interestingly, almost half of responding agencies said they used Facebook to communicate with their own employees, substantially more than used the professional networking site LinkedIn, although no examples were provided.

EFFECTIVENESS OF SOCIAL MEDIA

Survey respondents were asked to rate the effectiveness of social media in two dimensions: (1) achieving agency goals; and (2) reaching specific markets.

Achieving Agency Goals

Respondents rated the effectiveness of social media in meeting their stated goals using a four-point scale, from "not effective at all" to "very effective" (see Table 5). Agencies rated social media "very effective" in accomplishing the following:

- *Communicate with current riders* (58% of responding agencies)
- *Distribute real-time information* (43%)
- *Distribute general service information* (42%).

Many agencies noted that social media strategies were "not effective at all" in meeting the following goals:

- *Recruit and keep staff (17%)*
- *Save money (15%)*
- *Increase ridership (11%).*

Of particular interest are the responses related to the effectiveness of social media in reaching current and potential riders. Although social media appeared to be a good way to communicate with current riders (58% of respondents said it was "very effective" in this regard), the platform was far less effective for reaching potential riders or increasing ridership. Only 13% of respondents considered social media "very effective" for reaching potential customers (average = 2.7) and 11% said it was "very effective" for increasing ridership (average = 2.4).

Respondents disagreed about the role of social media in saving money. Although these applications may have the potential to reduce costs associated with printed materials and

postage, for example, the additional staffing requirements may offset these economies for some organizations. Accordingly, 40% of respondents considered social media "very effective" for saving money, but 15% said it was "not effective at all" (average = 3.0). As Table 5 shows, the average score compiled for this measure falls in the middle of the range, reflecting the split between the organizations that considered social media effective in this regard and those that did not.

Social media do not appear to be widely used for communicating with agency staff. Almost two-thirds of respondents said that the question did not apply to their agency, and 58% of those responding said that social media were "slightly effective" for recruiting and keeping staff.

TABLE 2.
TYPE OF INFORMATION PROVIDED AND SOCIAL MEDIA
APPLICATION USED

Platform	Twitter	Facebook	Blog	YouTube	LinkedIn
Agency News	86%	80%	37%	23%	3%
Service Alerts (real-time)	77%	49%	9%	3%	0%
Contests and Promotions	69%	77%	23%	17%	0%
Meeting and Event Notices	66%	71%	31%	3%	3%
Service Info (static)	63%	69%	29%	20%	9%
Press Releases and Statements	63%	60%	23%	9%	3%
Other News	57%	63%	31%	14%	3%
Feature Stories	31%	57%	40%	29%	0%
Job Listings	20%	23%	3%	0%	14%
Public Hearing Comments	11%	26%	20%	9%	0%
Other	11%	17%	6%	14%	3%

Multiple responses allowed. Responses expressed as percentage of total responding agencies ($N = 35$).

TABLE 3.
IMPORTANCE OF SOCIAL MEDIA GOALS

Goal	No.	Not Important	Slightly Important	Important	Very Important	Average
Communicate with Current Riders	33	0%	0%	3%	97%	4.0
Improve Customer Satisfaction	33	0%	6%	9%	85%	3.8
Improve Agency Image	33	0%	6%	18%	76%	3.7
Reach Potential Riders	32	0%	9%	22%	69%	3.6
Distribute Real-time Service Info	32	3%	13%	19%	66%	3.5
Strengthen Community Support	33	0%	12%	21%	67%	3.5
Distribute General Service Info	33	3%	6%	45%	45%	3.3
Increase Ridership	33	3%	15%	30%	52%	3.3
Obtain Feedback on Projects	32	3%	19%	31%	47%	3.2
Save Money	29	17%	31%	24%	28%	2.6
Recruit and Keep Staff	29	38%	41%	17%	3%	1.9

Percentage is based on number of agencies responding to question, shown in column marked "No." Weighted average was calculated from responses using a four-point scale where 1 = "not important at all" and 4 = "very important." N/A responses were excluded.

To further assess the effectiveness of social media, a comparison was made between the perceived effectiveness of social media in reaching agency goals and the stated importance of each goal using the weighted averages. As in previous survey questions, "very effective" = 4 and "not effective at all" = 1.

Figure 7 compares the importance of a goal and the effectiveness of social media in accomplishing that goal. As the chart shows, communicating with current riders is the most important goal for agencies and also the area where social media can be most effective. For other highly rated goals, including customer satisfaction and agency image, the gap between goal and effectiveness was wider. In a few

cases, there appeared to be a disconnect between stated importance and effectiveness. For example, agencies considered social media applications to be most effective for distributing real-time and general service information; these attributes did not rank among the most important for agencies on average.

REACHING TARGET MARKETS

Survey respondents were also asked how effective social media channels were in reaching different market segments. Consistent with the way agencies reported using these platforms, they rated social media most effective for communicating with everyday riders, young adults, and students. Social media were considered least effective for reaching seniors and low-income communities. Responses are summarized below and presented in Table 6. Note that the survey did not define market groups such as everyday riders, young, adults, and low-income communities, and agencies may have interpreted them differently when responding. The survey also included tribal communities on the list of target markets, but the results are not reported because of the small number of responses.

- **Everyday riders**—Most reporting agencies considered social media "very effective" (35%) or "effective" (55%) for reaching everyday riders or commuters.
- **Young adults**—Responding organizations considered social media to be "very effective" (38%) or "effective" (48%) for connecting with young adults.
- **Students**—Similarly, agencies found social media "very effective" (40%) or "effective" (40%) for connecting with students.

TABLE 4.
SOCIAL MEDIA APPLICATION BY TARGET MARKET

Target Market	No.	Twitter	Facebook	YouTube	Blog	LinkedIn
Everyday Riders	33	91%	85%	52%	33%	3%
Young Adults	33	85%	88%	48%	36%	3%
Students	33	79%	88%	45%	27%	3%
External Stakeholders	33	67%	79%	48%	39%	9%
Minorities	33	67%	64%	30%	30%	3%
Low-income Communities	33	64%	64%	33%	27%	3%
Seniors/Older Americans	33	61%	61%	33%	36%	3%
People with Disabilities	33	61%	58%	33%	30%	3%
Agency Employees	33	24%	45%	21%	18%	12%

Multiple responses allowed. Responses expressed as percentage of total responding agencies ($N = 33$).

- **Seniors/older Americans**—Of the agencies using social media to reach seniors, only 4% considered it "very effective." Almost half (48%) thought it was "slightly effective," and 17% found the approach "not effective at all."

- **People with disabilities**—More than half (57%) of the agencies using social media to reach people with disabilities considered the strategy to be "effective," and 33% said social media were "slightly effective."

- **Low-income communities**—The majority (61% of agencies reporting) said social media were "slightly effective" for reaching this group and only 11% said they were "very effective."

- **Minorities**—Among those who used social media to reach minority communities, 61% considered social media an "effective" tool for targeting these individuals and 33% called them "slightly effective."

TABLE 5.
EFFECTIVENESS OF SOCIAL MEDIA APPLICATIONS IN ACHIEVING
AGENCY GOALS

Item	No.	Not Effective	Slightly Effective	Effective	Very Effective	Average
Communicate with Current Riders	33	0%	12%	30%	58%	3.5
Distribute General Info	33	0%	15%	42%	42%	3.3
Distribute Real-time Service Info	28	0%	25%	32%	43%	3.2
Improve Agency Image	33	0%	18%	58%	24%	3.1
Save Money	20	15%	15%	30%	40%	3.0
Obtain Feedback on Projects	30	3%	30%	37%	30%	2.9
Improve Customer Satisfaction	33	0%	27%	55%	18%	2.9
Strengthen Community Support	30	0%	37%	43%	20%	2.8
Reach Potential Riders	30	0%	43%	43%	13%	2.7
Increase Ridership	27	11%	52%	26%	11%	2.4
Recruit and Keep Staff	12	17%	58%	17%	8%	2.2

Percentage is based on number of agencies responding to question, shown in column marked "No." Weighted average was calculated from responses using a four-point scale where 1 = "not effective at all" and 4 = "very effective." N/A responses were excluded.

- **External stakeholders**—About 23% of agencies using social media in this way called the approach "very effective" and 50% said it was "effective."

- **Agency employees**—About 63% of agencies using social media for internal communications said it was "effective" and 13% said it was "very effective."

To compare the effectiveness of using social media tools to reach different constituencies, an average ranking was developed. A four-point scale was used, where 1 = "not effective at all" and 4 = "very effective;" N/A responses were excluded. As the rankings in Table 6 show, agencies considered social media
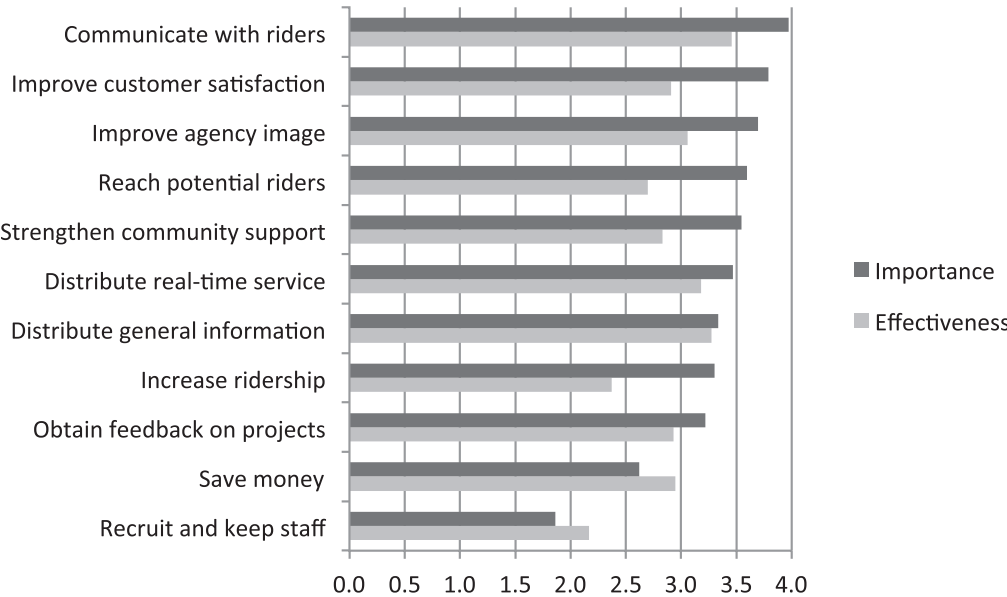
FIGURE 7. Compare importance of agency goals and effectiveness of social media in achieving goals. (A weighted average was calculated from responses using a four-point scale where "not important/effective at all" = 1 and "very important/effective" = 4. N/A responses were excluded.)

most effective for reaching everyday riders, young adults, and students. The approach was least effective for communicating with seniors, people with disabilities, and low-income communities. Responding agencies identified only two demographic groups for which social media channels were considered "not effective at all": seniors (17%) and people with disabilities (5%).

CONTENT MANAGEMENT

Agencies were asked how frequently they updated the content on social media sites. For agencies providing real-time alerts ($N = 29$), 66% reported updating the information multiple times per day. But with the exception of these time-sensitive announcements, most agencies updated social media

postings less frequently. News items and general service information stayed fairly current, with agencies reporting updates a few times a week for agency news (35%), other news (30%), and meeting and event notices (27%). At the other end of the spectrum, agencies posted some types of information once a month or less, including public hearing comments (58%), job listings (53%), and contests and promotions (50%). Table 7 presents these findings.

COORDINATION WITH AGENCY PROGRAMS

Almost all agencies responding to the survey coordinated social media with their marketing and communications plan (90%). This is consistent with the content management practices of most responding agencies. As stated previously, marketing and communications staff had full or partial responsibility for social media posts. A respondent from a large urban agency offered this comment: "Social media tools need to be part of a comprehensive strategy for passenger information and public communications (including traditional and IT-based means), rather than implemented as one-offs."

A majority of responding agencies (74%) said that they used their social media platforms for service advisories and just under half (45%) for real-time service alerts. Agencies reported limited coordination with other customer information services, including 511/traveler information (16%), 311/citizen information (10%), and 211/human services information (10%). A handful of agencies reported integrating social media with mobile applications, automated real-time information, special promotions, and other web-based activities.

TABLE 6.
EFFECTIVENESS OF SOCIAL MEDIA FOR REACHING CONSTITUENCIES

	No.	Not Effective	Slightly Effective	Effective	Very Effective	Average
Everyday Riders	31	0%	10%	55%	35%	3.3
Young Adults	29	0%	14%	48%	38%	3.2
Students	30	0%	20%	40%	40%	3.2
External Stakeholders	26	0%	27%	50%	23%	3.0
Agency Employees	16	0%	25%	63%	13%	2.9
Minorities	18	0%	33%	61%	6%	2.7
People with Disabilities	21	5%	33%	57%	5%	2.6
Low-income Communities	18	0%	61%	28%	11%	2.5
Seniors/Older Americans	23	17%	48%	30%	4%	2.2

Percentage is based on number of agencies responding to question, shown in the column marked "No." Weighted average was calculated from responses using a four-point scale where 1 = "not effective at all" and 4 = "very effective." N/A responses were excluded.

TABLE 7.
FREQUENCY FOR UPDATING SOCIAL MEDIA APPLICATIONS BY TYPE OF CONTENT

Content Type	No.	Multiple Times a Day	Daily	A Few Times a Week	Weekly	A Few Times a Month	Once a Month or Less
Service Information (static)	33	24%	3%	24%	6%	21%	21%
Agency News	31	13%	10%	35%	13%	23%	6%
Meeting and Event Notices	30	3%	3%	27%	13%	27%	27%
Service Alerts (real-time)	29	66%	7%	17%	3%	7%	0%
Press Releases and Statements	28	14%	7%	21%	0%	43%	14%
Other News	27	15%	15%	30%	7%	26%	7%
Contests and Promotions	26	4%	12%	8%	4%	23%	50%
Feature Stories	23	9%	4%	22%	4%	30%	30%
Public Hearing Comments	19	11%	0%	16%	0%	16%	58%
Job Listings	17	6%	0%	12%	12%	18%	53%
Other	7	43%	14%	0%	0%	14%	29%

Row percentage based on number of agencies responding, shown in column marked "No."

CHAPTER FOUR
BARRIERS TO USING SOCIAL MEDIA

INTRODUCTION

This chapter identifies some common barriers to using social media and presents strategies for addressing them. Information is drawn from the survey findings and supplemented, as necessary, with information from the literature review.

Although use of social media offers many potential benefits, government agencies have encountered numerous difficulties and pitfalls. Concerns about user privacy and cybersecurity have implications for all users of the social web. However, other challenges, such as record-retention requirements and responding to online comments, are mostly relevant to public-sector agencies.

COMMON BARRIERS TO USING SOCIAL MEDIA

NASCIO reports that for state chief information officers, concerns about social media include security, legal terms of service, privacy, records management, and acceptable use. Consistent with those findings, HCI identified security as the primary barrier for expanding social networking in government. For the transportation agencies participating in the *UTM* survey, pitfalls include staffing requirements, managing negative comments, and addressing user expectations (*2–4*).

For this synthesis, survey respondents were asked about the importance of common barriers to implement-

ing social media activities at their agency (see Table 8). To better compare these responses, a weighted average was calculated using a four-point scale where 1 = "not important at all" and 4 = "very important." Consistent with the findings reported in *UTM,* the following factors appeared most influential to respondents for the synthesis survey; more than 20% of agencies flagged them as barriers, rating them "very important" when deciding whether or not to use social media:

- *No staff available to manage social media activities* (29% of responding agencies/average = 2.8)
- *People will use social media to criticize my agency* (22% of responding agencies/average = 2.7).

At the other end of the spectrum, the following factors did not appear to present barriers to agencies and were most commonly rated "not important at all" in the decision to use social media:

- *Social media are not a good way to reach minorities (63% of responding agencies/average = 1.6).*
- *Social media expose our agency to computer viruses (63% of responding agencies/average = 1.7).*
- *Staff will waste time updating their personal pages (47% of responding agencies/average = 1.8).*
- *Seniors do not use social media (46% of responding agencies/average = 1.7).*

The warnings of cybersecurity experts notwithstanding, survey respondents were far more concerned about exposing their agency to criticism than to computer viruses.

SOCIAL MEDIA POLICIES

Although the practice is not universal, many public agencies have adopted social media policies to provide guidance for addressing these barriers and concerns. Research conducted by the Center for Technology in Government (CTG) at the State University of New York at Albany, and summarized as part of the literature review, provides a roadmap for government agencies that are considering developing a social media policy. The CTG research team, who reviewed about two dozen policies and interviewed more than 30 officials, identified 8 basic elements common to most policies (*16*):

- **Employee access**—Agencies manage access in two ways, either by restricting the number or type of employees who can access social media sites or by limiting the types of sites that employees can access.

- **Account management**—Many agencies required the chief information officer and/or the communications officer to oversee social media accounts.

- **Acceptable use**—Agencies are challenged by the softening line between personal, professional, and official agency use of social networking sites.

- **Employee conduct**—Most agencies referred to existing policies for employee conduct, although a few addressed

some behaviors specific to social media, such as the need for transparency.

- **Content**—Most agencies tried to maintain at least minimal control over online content, either by assigning oversight responsibility to an individual manager or retaining the right to review content.

- **Security**—Most policies referred to agency IT security guidelines, although a few focused specifically on the importance of password control.

- **Legal issues**—Although some policies simply advised employees to follow all applicable laws, several focused on records retention and others required sites to post specific disclaimers.

- **User conduct**—About a dozen policies included rules of conduct for readers and posters, including restrictions on offensive language.

As the list suggests, some agencies use a social media policy to provide agency-level guidance on using the social space (e.g., responsibility for content), some use the policy to manage employee behavior, and some develop policies to cover both. Among the agencies responding to the survey for the synthesis, only 27% had a social media policy, although more than half (58%) had one in development.

RESOURCE REQUIREMENTS

Staffing availability was the most commonly cited barrier to

using social media among transit properties surveyed for this study. As Table 8 shows, two of three responding agencies (68%) said this factor was "important" or "very important" when deciding whether to implement a social media campaign.

Staffing Levels

Most agencies reported that marketing and communications staff generated content for social media applications (86% of responding agencies), either alone or in collaboration with other departments. Other departments commonly cited were customer service (29% of agencies), administration (23%), planning (23%), operations and maintenance (23%), senior management (23%), and information technology (20%).

Agencies were also asked to indicate how many hours per month staff devoted to social media activities. Figure 8 shows the overall distribution of staff hours at the agency level based on operating setting. The categories are defined as: (1) Large urbanized area—population more than 200,000; (2) Small urbanized area—population between 50,000 and 200,000; and (3) Rural area—population less than 50,000. However, small urbanized and rural areas were combined for this analysis because only seven responding agencies fell into these categories.

As might be expected, large urban agencies devoted more staff resources to social media than those operating in smaller environments. More than half of the large urban agencies responding to this question allocated at least 40 hours, or the equivalent of one week per month, to social media activities, including 23% that reported an investment of more than 80 hours per month. Small agencies generally

TABLE 8.
IMPORTANCE OF BARRIERS IN AGENCY DECISION TO USE
SOCIAL MEDIA

Barrier	No.	Not Important	Slightly Important	Important	Very Important	Average
No staff available to manage social media activities	31	16%	16%	39%	29%	2.8
People will use social media to criticize my agency	32	13%	28%	38%	22%	2.7
Posting updates takes too much time	31	19%	45%	23%	13%	2.3
Our riders do not have access to technology	29	34%	24%	31%	10%	2.2
People with disabilities cannot access social media	23	30%	30%	35%	4%	2.1
Traditional communications methods are the best way to reach our riders	31	32%	29%	32%	6%	2.1
Agency managers did not see the benefits of social media	28	43%	25%	18%	14%	2.0
Social media apps require support from IT staff	29	41%	21%	31%	7%	2.0
Using social media creates concerns about user privacy	30	37%	43%	10%	10%	1.9
Staff will waste time updating their personal pages	30	47%	33%	10%	10%	1.8
There's no good way to archive social media posts	31	35%	48%	16%	0%	1.8
Seniors do not use social media	28	46%	36%	18%	0%	1.7
Social media exposes our agency to computer viruses	32	63%	16%	13%	9%	1.7
Social media is not a good way to reach minorities	24	63%	17%	21%	0%	1.6

Percentage is based on number of agencies responding to question, shown in column marked "No." Weighted average was calculated from responses using a four-point scale where 1 = "not important at all" and 4 = "very important." N/A responses were excluded.

devoted less staff time to social media and the vast majority (86%) reported a commitment of 40 hours per month or less.

Table 9 shows the distribution of staff hours based on department or job classification and distinguished by operating setting. Again, small urban and rural agencies are com-

bined. Overall, the results document the wide variation in approaches to social media among transit properties, showing distinct differences in which departments participate and how much time they spend. Marketing and communications staff was most likely to participate in social media programs across the board. At large urban properties, the reports ranged from a low of 2 to 3 hours per month to a high of 200 hours per month; at smaller agencies the range was narrower, from an estimated 3 hours per month to 20 hours.

Among large agencies, social media responsibilities were also allocated to community relations staff (as many as 170 hours per month) and customer service (up to 200 hours per month). Other departments, such as legal and procurement, had a small role, and human resources had none.

Direct Expenses

In addition to asking about staffing requirements, the survey asked respondents to report direct expenses for social media activities. These questions yielded very few meaningful responses and are not summarized here. Perhaps consistent with the lack of response to this question, respondents disagreed about the effectiveness of social media as a cost-cutting measure (see Table 5).

Potential Revenues

Survey respondents were asked whether they had investigated potential revenue streams from social media. Half of the responding agencies (50%) had not done so. Others
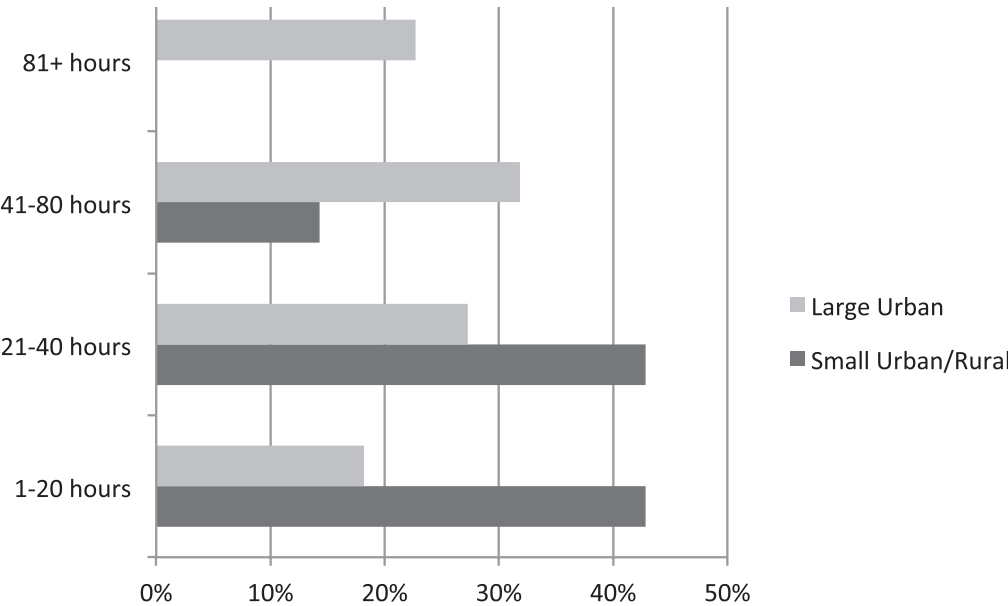
FIGURE 8. Agency investment in social media (total hours per month by size of agency). Percentage is based on number of agencies reporting in the size category. For small urban/rural N = 7 and for large urban N = 22.

had considered advertising (27%), partnerships with outside organizations (27%), and location-based advertising (20%).

Research conducted on behalf of the Washington State Department of Transportation (WSDOT) found some precedent for accepting advertising on government websites, although most of the identified sites were government-sponsored tourism sites. WSDOT identified several potential scenarios for generating revenue, including direct advertising sales, sponsorships, and business listings. Projections for annual net revenues varied considerably, from a high of $1.9 million to a potential loss of $70,000 (17). Other public agencies have explored these scenarios, including the state of New York, which developed an advertising policy outlining the limited circumstances under which state agencies may accept advertising. It also identified

policy concerns including perceptions of official endorsement or favoritism, potential privacy violations when users click on an advertisement, and potential consequences if users are redirected to another website (*18*). Neither document addresses the benefits or impacts of advertising on social media platforms, but many of the findings apply.

MANAGING EMPLOYEE ACCESS TO SOCIAL MEDIA

Managing employee access to social media at the workplace can be a challenge for many organizations. Some employers believe that social media tools can encourage staff communication and collaboration, but others are concerned about lost productivity, cybersecurity threats, and risks to reputation. In its survey of government social media policies, CTG summarizes the dilemma: "Questions commonly arise with social media use, such as how much time an employee may spend on a personal Facebook page while at work or how much time an employee should devote to participating in peer-to-peer networking on sites such as GovLoop" (*16*).

As the line between personal and professional lives continues to blur, these questions are becoming increasingly relevant. Trend Micro found that 24% of U.S. workers accessed social media sites while on the job in 2011, up from 20% in 2010 (*19*). Federal workers are also using social media applications at work, and not necessarily for business reasons. A recent survey found that 46% of senior federal managers were allowed to access social media on the job in 2011, up from 20% in the previous year. Among those using social media sites, 54% used

TABLE 9.
STAFF COMMITMENT TO SOCIAL MEDIA ACTIVITIES BY SIZE OF
URBANIZED AREA

Job Category/Department	Large Urban			Small Urban/Rural		
	No.	Low	High	No.	Low	High
Marketing and Communications	21	2.5	200	4	3	20
Senior Management	8	1.5	30	3	5	10
Information Technology	7	1	24	2	1	10
Customer Service	5	1	200	2	3	10
Administration	2	4	5	3	5	10
Planning	2	5	8	1	—	20
Operations/Maintenance	2	5	20	2	1	8
Consultant	1	—	5	1	—	1
Community Relations	1	—	170	0	—	—
Legal/Procurement	1	—	5	0	—	—
Intern	1	—	32	2	5	20
Human resources/Training	0	—	—	0	—	—

Hours per month by size of operating setting and job category or department. High and low values reported; column marked
"No." shows number of agencies responding.

Facebook, including 20% who used it daily. For federal Facebook users, only 6% used the application exclusively for work purposes; 49% used it for personal use only and 45% for both work and personal use (*20*).

Although some organizations ban personal use of social media at the workplace, others allow some level of access. For example, Seattle-based King County Metro Transit's employees are subject to the county's social media policy, which addresses personal use as follows:

Employees are allowed to have personal social networking sites. Employees should never use their county email account

or password in conjunction with a personal social networking site. During normal business hours, employees may use personal social networking for limited family or personal communications so long as those communications do not interfere with their work and as long as they adhere to existing computer use policies. Should employees discuss their county work on personal social networking accounts or web sites, they should be aware their account may be subject to public disclosure laws, even if produced on personal time and equipment (*21*).

Some agencies responding to the synthesis survey cited advantages to allowing employee access to social media on the job and offered the following comments:

- Provided morale boost for staff to interact outside office.
- Blog and Twitter work is shared as part of regular internal communications with about 30% of our organization.
- This wasn't our target audience but we have found that we are engaging many employees through Facebook page; they are adding to our conversation as well as seeking answers to questions.

Others took steps to discourage or restrict access to personal and official social media sites, describing their approaches as follows:

- Employee access to social media is pretty restricted, with only a handful of employees having access to Facebook.
- All employees have access to [the agency's] social media space; however only a couple of [agency] web and communications staff has modifying powers.

- Employees are encouraged to limit their personal use of social media and restrict activities to [agency]-oriented content.

These limits on staff social media activity were consistent with the CTG's findings. According to CTG, public agencies manage employee access to social media in two ways: (1) controlling the number or types of employees who may use social networking sites or (2) restricting employee access to certain types of websites. HCI's survey of 607 government agencies had similar findings. HCI identified three common approaches for handling employee access to social media: (1) block all social networking tools, (2) limit access to a few selected social networking tools or for a few functions, and (3) limit access to selected individuals (*2, 16*).

The synthesis survey asked whether respondents were concerned that employees would waste time updating their personal social media accounts while on the job. On average, respondents to the synthesis survey did not flag workplace access to social media as a major barrier to implementation. As Table 8 shows, only 10% considered this issue "very important," and transit agencies reported different approaches to managing staff use of social media. However, although some agencies see advantages in allowing their employees to access the type of information available through social networking, others are more concerned about the perceived security risks. NASCIO reports that employee misuse of social media

was one of the top five concerns regarding social media in government. ISACA (formerly known as the Information Systems Audit and Control Association) shared this concern, saying that employee use of social media on the job or at home could expose an organization to malware and viruses, data loss, privacy violations, and damage to reputation (*4,16,22*). These concerns are discussed later in this chapter.

HANDLING ONLINE CRITICISM

Social media platforms allow transit agencies to present their message to stakeholders, independent of the news cycle and unaltered by editorial opinions. However, although agencies can control the message they share with their audience, they cannot expect to manage what people say about them. Fear of online criticism was one of the major barriers to using social media, according to the survey respondents. As Table 8 shows, 60% of responding agencies considered this issue "important" or "very important."

To address this concern, one industry expert offered the following advice. Although aimed at private-sector marketers, it applies to public agencies as well:

> If you choose to go down the path toward social media engagement, you have to be prepared for loss of control. If you can accept that the conversations people will have about your brand will mix the negative in with the positive, you're in a good position to benefit from the data you'll get about your brand and product offerings. Think of it as unaided, unfiltered consumer research (*23*).

Agencies also face the potential for negative feedback from disgruntled current or former employees. In Portland, Oregon, TriMet allows employees to maintain personal blogs so long as they make it clear that they are not speaking on behalf of the agency. Nevertheless, agency officials were forced to take disciplinary action against one bus driver after his blog post appeared to threaten a bicycle rider. "This is a free speech right that we support," a TriMet spokeswoman told a local reporter in reference to blogging bus drivers. "But you can't cross the line" (*24*).

Sources agreed that there was a clear distinction between online behavior that was illegal or offensive and behavior that was negative or critical. The CTG found that 11 of 26 government social media policies reviewed addressed the issue of citizen conduct, including offensive language, illegal activities, or other inappropriate actions. Generally, public agencies reserved the right to delete or edit offensive content, including obscenities and profanity (*16*). For example, St. Louis Metro Transit posts this disclaimer as part of its blog comment policy: "Editors reserve the right to modify or delete any comments that don't conform to our guidelines below or that we deem otherwise inappropriate, and we will ban commenters who cannot follow the rules (with or without warning)" (*25*).

When the comments are negative, but not in violation of policy, several government organizations and nonprofits provide advice to their employees on how to respond in an appropriate manner. Depending on the situation, suggested actions include everything from accepting the criticism to not responding at all. The city of Edmonton,

Alberta, offers the following guidance to its employees, who include staff of the Edmonton Transit System: "Be respectful. Encourage constructive criticism and deliberation. Be friendly, honest and professional at all times." The Center for Association Leadership encourages nonprofits to consider negative feedback as "a golden opportunity to fix misperceptions" (*26–29*).

To help respond to online comments, both positive and negative, industry experts suggest keeping social media communications informal and genuine while tailoring information to the intended audience. Key characteristics include (*30*):

- Casual—Your social media communications will be mingled with personal messages from users' friends and family. Try to fit in.
- Human—Social media are designed primarily to allow people to socialize with people.
- Concise—Your content on social media outlets is forced to compete with countless personal messages, jokes, and games. Get to the point.

The EPA, one of the first federal organizations to develop guidance for using social media, echoes these suggestions in its advice on finding a tone for social media posts: "Write in an informal, personal tone. Think party conversation, not news release or fact sheet" (*31*). One survey respondent offered a similar comment: "Tone is important: Lose the auto-posts and public agency speak. Connect with people like a human."

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Internet accessibility for people with disabilities has improved substantially over the past few years, thanks to Section 508 accessibility requirements and standards developed by the World Wide Web Consortium. For example, the guidelines are designed to ensure that website content can be accessed by users with visual impairments, especially those who use assistive devices such as screen readers, and to enable users with hearing impairments to access video and audio components. Other good practices for website accessibility include visual contrast, adjustable text sizes, keyboard navigation for people with impaired mobility, and color schemes that color-blind readers can recognize. Social media applications have not yet completely caught up, however, and their heavy reliance on graphics, videos, and user-generated content has created specific accessibility challenges.

Web Accessibility in Mind (WebAIM), an organization within the Center for Persons with Disabilities at Utah State University, surveyed individuals who use assistive screen readers to rate the accessibility of social media sites. As Table 10 shows, the majority of these individuals (62%) consider social media "somewhat accessible" overall. Twitter and blogs were the most accessible applications; 62% said Twitter was "very accessible" and 45% said the same for blogs. LinkedIn scored lowest for accessibility; 31% said the site was very inaccessible for screen readers (*32*).

Many of the recommended steps for improving the accessibility of social media sites are consistent with good

TABLE 10.
USERS OF SCREEN READERS RATE SOCIAL MEDIA SITES
ON ACCESSIBILITY

Platform	No.	Very Accessible	Somewhat Accessible	Somewhat Inaccessible	Very Inaccessible
Social Media Overall	462	10%	62%	23%	5%
Blogs	467	45%	48%	6%	1%
YouTube	425	26%	52%	14%	7%
Facebook	359	10%	49%	28%	13%
Twitter	278	62%	29%	5%	4%
LinkedIn	164	10%	29%	30%	31%
MySpace	107	39%	46%	10%	5%

Source: "Screen Reader User Survey #2 Results" (*32*).

web usability practices. These include providing descriptive titles for photographs and graphic images in the source code (also known as ALT tags) and including captions for videos. Some third-party applications are available that provide an alternate accessible interface to existing social media applications, including Twitter and YouTube. Facebook provides guidance for readers using assistive technology and offers an option for disabling JavaScript features on the site. In addition, some experts recommend posting a fully accessible version of social media content on a companion website (*33*). Maintaining an alternate accessible site can also help agencies comply with records-retention requirements by facilitating archiving.

One vexing concern is the widespread use of an application called CAPTCHA, which stands for Completely Automated Public Turing Test to Tell Computers and Humans Apart. CAPTCHA is a program designed to make sure that users participating in online discussion boards or signing

up for e-mail subscriptions are real people, and not auto-mated bots. For example, *Moving LANTA Forward,* the blog for the Lehigh and Northampton Transportation Authority, uses CAPTCHA to screen comments on its blog posts. A typical CAPTCHA application asks users to retype one or two words that are displayed as distorted text. Although humans can interpret the distortions, machines cannot. Assistive devices such as screen readers are also stymied by the application, which block some visually impaired users from accessing certain features on social media sites. In a 2009 survey, screen reader users said that CAPTCHA was the most problematic item encountered online (*32*). Some websites provide an audio version of CAPTCHA for visually impaired users; however, researchers have found that it is difficult for individuals to use (*34*).

Federal agencies are required to conform to Section 508 accessibility guidelines for their own sites, but federal use of nonfederal websites is subject to interpretation. The General Services Administration included this guidance regarding federal use of outside websites in its social media handbook (*35*):

> Agencies employing non-federal Web 2.0 services are required to ensure that persons with disabilities have equal access to those services as defined in the Accessibility Standards. The agency must evaluate the accessibility of the non-federal site and consider the accessibility of all available alternatives. If dissemination of information in an accessible manner constitutes an undue burden on the agency, a non-accessible non-federal site may still be used, but the agency must make the information available in alternative formats for individuals with disabilities.

Some argue that federal Section 508 accessibility rules do not apply to government use of social media sites such as Twitter and Facebook, because the sites are privately owned and operated. Advocates say this violates the spirit of the law (*36*).

State and local organizations do not typically address accessibility in their social media policies, and CTG did not include the issue in its list of eight basic elements of government social media policies (*17*). Among public agencies that do address the issue, Orange County, California, does not require its social media sites to comply with Section 508 requirements; instead, the county requires noncompliant sites to contain links to identical material on a compliant website or social media network (*37*).

Only 21% of agencies responding to the survey reported that their social media websites were completely accessible for users with disabilities. Another 12% said their sites were partly accessible, and 36% did not know. Note that the survey did not define accessibility, and the standards agencies used to determine accessibility are not known. Agencies reporting fully or partially accessible social media platforms used several accessibility features. These included captions for photos (78% of respondents) and videos (44%), along with audio CAPTCHA (19%) and accessible Twitter (15%). Captioning alone does not make a website accessible, and some organizations referred customers with disabilities to the agency's main website, which fully conformed to accessibility requirements. One respondent from a large urban agency wrote, "As we provide all the pertinent information

on our fully accessible website we do not feel that we are excluding a person with disabilities."

SECURITY

IT professionals and Internet security experts are increasingly concerned that social media can increase an organization's exposure to a range of threats to cybersecurity, from spam to malware. About 57% of respondents in one survey of 502 companies said they received spam messages through social networking, and 36% believe they received software worms, viruses, or other forms of malware (*38*). In a white paper, ISACA outlined some of the major risks associated with corporate use of social media, including these security concerns (*22*):

- Introduction of viruses and malware
- Use of personal accounts to communicate work-related information
- Employee posting of pictures or information that link them to the enterprise
- Excessive employee use of social media in the workplace
- Employee access to social media through employer-supplied mobile devices.

Social networking sites are perceived as particularly vulnerable to threats for two reasons. First, they are designed to encourage users to share details of their personal and/or professional lives, and individuals sometimes offer too much information. Second, users have a tendency to trust social media sites and are quick to click on links, pictures, videos, and executa-

bles when they come from "friends" (*39*). Echoing this concern, one IT security expert told the *San Francisco Chronicle,* "Social media provides criminals with an opportunity. When I get a message on Facebook from my wife and I see a link, I'm going to click it" (*40*). ISACA further points out that the risks of social media use extend to employees who access social media sites from mobile devices or home computers (*22*).

Experts do not offer easy solutions, especially given the ubiquity of social networking in the business world and increasingly the public sector. NASCIO reports that best practices include extending existing security, privacy, and records management firewalls to the social media environment and "knowing that education and end-user awareness are big pieces of the puzzle" (*4*).

Despite the widespread concerns expressed in the literature about cybersecurity, only one agency responding to the survey reported encountering a problem, a virus allegedly contracted through Facebook. The vast majority of agencies (88% of respondents) did not encounter any cybersecurity issues related to their use of social media or did not know whether their agency had been exposed to threats (9%). As observed earlier in this chapter, respondents showed more concern about exposure to criticism (average = 2.7) than exposure to computer viruses (average = 1.7).

RECORDS RETENTION

This issue has not yet been resolved legally, but many government IT professionals believe it is only a matter of

time before social media posts become subject to the same record-keeping and disclosure rules that apply to e-mail and paper records. For now, the guidance varies from state to state and from agency to agency.

Among agencies surveyed for this synthesis, one in four (25% of agencies responding) was required to archive social media posts. Just over half (56%) were not required to do so, and 19% were not certain. When agencies kept records, their archiving strategies included printing files, saving screenshots as PDF files, copying and pasting text into word processing documents, or backing up images on the agency server. A few agencies use third-party applications that allow users to save Twitter posts in spreadsheet or text format, whereas others leave the files in original format (e.g., blog administrative files or Foursquare archives).

In a white paper, the American Council for Technology–Industry Advisory Council (*41*) identified five challenges to social media records retention:

- **Declaration:** What is a social media record?
- **Social media capture:** Much of the social media content is in the public domain and, therefore, not under control of the agency causing difficulty in capturing content.
- **Social media metadata:** Applying metadata to tag social media content for retrieval is difficult.
- **Social media scheduling/disposition:** The lack of control of the content makes scheduling and disposition of records difficult.

- **Staffing and education:** Education is needed to implement a successful social media records policy.

Gregory C. Wilshusen, director of information security issues for the U.S. Government Accountability Office, testified on this matter before the House Subcommittee on Information Policy, Census, and National Archives in July 2010 (*42*). He reported that federal agencies had two general concerns about social media:

- Privacy and security, and
- Records management and Freedom of Information challenges.

The National Archives and Records Administration (NARA) has issued guidance to help federal agencies make decisions on electronic record-keeping and responding to requests under the Freedom of Information Act. However, according to Wilshusen's testimony, the challenges come in translating NARA guidance into practical actions (*42*). Potential barriers include determining what records to keep, how often to harvest them, and how to treat information from nongovernment sources (such as public comments on an agency blog). Another roadblock for agencies is the lack of options for creating archives from social media postings.

Given these challenges and uncertainties, some agencies have taken a wait-and-see attitude until more detailed guidelines become available (*43*). Others have developed their own records-retention requirements. For example,

the city of Seattle incorporates guidance on records reten-
tion into its broader social media policy (*44*):

> Washington state law and relevant City of Seattle records reten-
> tion schedules apply to social media formats and social media
> content. Unless otherwise addressed in a specific social media
> standards document, the Department maintaining a site shall pre-
> serve records required to be maintained pursuant to a relevant
> records retention schedule for the required retention period on
> a City server in a format that preserves the integrity of the
> original record and is easily accessible.

Seattle's specific standards require staff to archive Twit-
ter posts on servers maintained by the city and to print
and maintain Facebook content that cannot be retrieved
through Facebook. The state of North Carolina takes a
similar position. That state's social media policy defines
all communication through agency-related social media as
a part of the public record subject to the state's archiving
requirements (*45*).

PRIVACY

Government use of social media has raised concerns about
protecting user privacy. Although public agencies gener-
ally have privacy policies that address collection and use of
personal information on their own websites, social media
sites on third-party platforms are typically governed by the
privacy policy of the application.

In 2009, DHS held a workshop to explore the legal issues
associated with government use of social media (*46*). In
their discussion of privacy issues, workshop panelists said

that citizens expect their online transactions with government to represent a one-way mirror:

> People value the transparency into government activities that social media can provide and want to be able to see what the government is doing. At the same time, however, people do not want or expect that government will peer into their personal lives.

In other words, citizens expect transparency in government-to-citizen transactions and privacy in citizen-to-government interactions.

When government uses social media simply to disseminate information, the impacts on individual privacy are minimal. However, when public agencies invite online citizen interaction through comments or posts, then those citizens are potentially sharing information about themselves and all their friends with the government agency. Of course, any social media user can take steps to modify the privacy settings on a particular application, but the steps to do so vary among applications and many users simply accept the default settings. To protect individual privacy, panelists made the following recommendations: "Agencies should limit the personal information they collect through social media to that which is absolutely necessary, and should provide strong opportunities for individuals to exercise choice about how agencies use the personal information they submit."

St. Louis Metro Transit posts a privacy policy on its *NextStop* agency blog that describes how the agency collects and treats personally identifiable information when indi-

viduals post comments on the blog or sign up as members. The policy reads, in part:

> When you register as a NextStop Site Member, we ask for information such as your name, e-mail address, birth date, gender, ZIP code, occupation, industry, and personal interests. We may use this information for blog-related purposes and other purposes, including sending email updates to you with transit advocacy action items, or potentially providing the information to a third party for transit advocacy purposes only.... You can be confident that we do not sell or exchange names or any other information about our Site Members with third parties for commercial purposes or anything other than transit advocacy purposes (*47*).

Federal websites are required to conduct a privacy impact assessment if they collect personally identifiable information and to post a privacy policy on their website. Third-party social media websites are exempt from these rules, but the General Services Administration's social media policy requires the agency to protect personally identifiable information on external social media websites (*35*).

Although nonfederal organizations are not bound by these requirements, government agencies are urged to post a disclaimer on their social media pages. The disclaimer would remind users that they are not visiting an official government website and that the application's privacy policy applies; a link to the third-party privacy policy could be provided as well (*48*). For example, the Commonwealth of Massachusetts takes this approach and includes the following information about Twitter in its social media policy:

> Unless you protect your updates, messages you post on Twitter and received by the Agency may be public records and may also be publicly available.... Also note that this micro-blog is hosted by Twitter and is governed by Twitter's separate website policies, including its Privacy Policy and Terms of Service. These policies apply to your use of Twitter (*49*).

The Commonwealth's online disclaimer includes links to Twitter's privacy policy and terms of service.

CHANGING SOCIAL MEDIA LANDSCAPE

The clear consensus is that social media are here to stay. The challenge for transit properties is to keep track of changes in this dynamic environment and to adapt accordingly. Survey respondents were asked what social media developments they anticipated over the next several years. Although many reported short-term goals for their own agencies, such as increased use of YouTube or additional staff training, others addressed their response to industry trends. Examples include:

- We hope to be involved in location-based games such as Foursquare.
- More developments in location-based marketing and revenue generation ideas.
- More seamless ways to integrate social media into the existing system. A bigger base as more and more riders realize transit agencies' presence in social media. I also see social media accounts replacing the website as the "go-to" hub for organizational information.

- "Customers will be using mobile devices more than ever: their social networking activity will adapt accordingly. Other than that it's not for us to say: our job is to deliver good transportation service and communicate with our customers well, not to develop social media products!"

Not surprisingly, industry experts anticipate continued growth of social media and predict widespread mainstream acceptance. Already, observers are seeing the impact of growth in tablet computers, smart phones and other mobile devices, third-party applications, location-based technology, and social-buying services such as Groupon and LivingSocial. Membership in Capital Bikeshare, the bicycle-sharing program in Washington, D.C., almost doubled overnight when the program partnered with LivingSocial to offer coupons for discounted membership. Privacy will continue to be a concern, especially as applications facilitate information sharing among users. As the industry matures, several analysts see a greater emphasis on performance measures and return on investment, including industry-wide metrics and standards (*50–53*).

CHAPTER FIVE
CASE EXAMPLES

INTRODUCTION

The survey results provided an excellent overview of the use of social media among transit agencies, including goals, benefits, challenges, and resource requirements. Following a review of the survey results, six agencies were selected as case example sites. The case examples are intended to explore issues raised in the survey in more depth and to provide additional details on successful practices, challenges, and lessons learned. They represent transit agencies of different sizes in different parts of the United States and Canada, both early adopters of and newcomers to social media, and agencies using different social media strategies. The six participants are:

- Bay Area Rapid Transit (BART)—San Francisco, California
- Dallas Area Rapid Transit (DART)—Dallas, Texas
- Lehigh and Northampton Transportation Authority (LANTA)—Allentown, Pennsylvania
- Metropolitan Transportation Authority (MTA)—New York, New York
- Mountain Line—Morgantown, West Virginia
- TransLink—Vancouver, British Columbia.

Interviews were conducted by telephone with one or more representatives from each agency and are summarized here. In some cases, information is also presented from the agency's survey responses. The introduction to each case example includes a basic description of the system, with data taken from fiscal year (FY) 2009 National Transit Database reports or another official source.

BAY AREA RAPID TRANSIT

BART provides heavy-rail transit service in the greater San Francisco–Oakland metropolitan area, serving 93 square miles with a population of 834,000. In 2009, BART provided 114.7 million unlinked passenger trips.

Social Media Overview

Agency staff reports that BART uses the following social media platforms: agency blog (see Figure 9), Facebook, Twitter, YouTube, Flickr, LinkedIn, and Foursquare. The agency sees different advantages for each of these channels and uses them accordingly. Twitter is best for immediate customer communication and service updates. Facebook is better suited for affinity relationships, brand building, and creating community. YouTube allows BART to tell stories and to illustrate concepts that cannot easily be conveyed with the written word. BART uses its blog for what it calls "medium-format" communications that are too long to be summarized in a Facebook or Twitter post. LinkedIn is used for job listings, but otherwise is not part of BART's social media strategy. BART also uses its social media channels to push users to the agency's website, which

BART consiers the primary source of "serious nuts and bolts information," including service updates, fare information, and public meeting notices.

Agency Considerations

In the survey, BART indicated that communications with current riders and providing general service information were the agency's most important goals and that social media were "very effective" in achieving those goals. Also important for BART is the ability to bypass traditional media outlets and to communicate directly with customers. Another priority for BART is to make the agency "more approachable." Agency research has shown that when BART carried its first passengers in the 1970s, locals considered the project a marvel of technology. But after decades of familiarity, residents have come to treat BART as a utility. The agency is working to change this perception and to reposition itself as a regional mobility partner.

Overall, BART estimates that social media account for only about 6% of the impressions generated through electronic media. For this reason, BART has worked to create as many channels of communication as possible.

Customers expect to interact with BART in the social space, so employees work to find the balance between customer expectations and resource limitations. Live Twitter updates are available during regular business hours and the occasional special event or emergency. Train status and other alerts are available through the agency's official update channels at all times; BART does not rely on social media for

Image: Jeremy Brooks via Flickr

The BART Board of Directors will discuss at its June 23 meeting whether to proceed with a pilot proposal for later service on Friday nights.

FIGURE 9. BART's blog covers service-related topics

these core services. When marketing staffers sign off from Twitter, they provide followers with direct links to these automated updates. Thanks to these clearly defined boundaries, BART says that the amount of time that employees spend in the social media space has leveled off.

Because resource allocation is typically a zero-sum game, BART believes that agencies need to focus on the basics before moving into social media. Organizations would provide what customers need—online trip-planning tools, real-time information, service advisories, and way-finding resources—before turning to social media.

BART does not have a formal social media policy, but does have a comment policy. Inappropriate comments will be removed, but BART welcomes feedback—the good with the bad—saying that it is important for agencies to have a thick skin. Equally important is presenting information in a straightforward way. Readers may not always agree with the message, but they will respect honesty.

Lessons Learned

BART offered the following advice and lessons learned.

- **Keep social media in perspective**—While BART has no doubt that social media will become even more important in the future, for now social media users represent only a small segment of the rider population.
- **Get your house in order first**—If your website does not have trip planning, real-time information, and developer tools you should not be spending a great deal of time in social media.
- **Acknowledge your mistakes**—Everyone makes mistakes and BART believes it is important for organizations to own up to their errors.
- **Find the right tone**—BART urges agencies to avoid jargon and "agency-speak" and to use a human touch when connecting with readers.

Social Media Links

Website: www.bart.gov

Facebook: www.facebook.com/bartsf

Blog: sfbart.posterous.com/

Twitter: www.twitter.com/sfbart

YouTube: www.youtube.com/bartable

Foursquare: foursquare.com/sfbart.

DART DALLAS AREA RAPID TRANSIT

DART is a multimodal transit agency serving the Dallas metropolitan area. DART provides bus, light rail, commuter rail, demand-response, and vanpool services over 689 square miles with a population of 2.4 million. In 2009, DART provided 65 million unlinked trips.

Social Media Overview

According to agency staff, DART's social media activities include Facebook, Twitter, YouTube (see Figure 10), and RSS feeds. The agency believes that each medium is effective in its own way, and tries to match the medium to the message. DART uses its main website for providing general information and relies on Twitter and the e-mail/text messaging tool GovDelivery for service updates. DART also sees Twitter as an emerging platform for one-to-one conversations, whereas it values YouTube for one-to-many communications. A few years ago, DART saw the potential of YouTube as a new way to talk to its customers without spending a lot of money. The agency already had a talented videographer and photographer on staff, and YouTube enabled DART to work with existing resources. The barriers to entry were low, and the only invest-

ment needed was a consumer-grade camcorder. DART tries to make sure that its social media channels complement one another. YouTube videos are promoted on Facebook and Twitter, and all platforms encourage users to visit the main website.

"It's All Connected"

DART started using YouTube as part of the outreach efforts for its Green Line light rail project. The goal was to build excitement for the project and to sustain that interest over the 18-month construction period. Media relations staff developed a YouTube campaign called "I'm Connected," which was part of the broader marketing theme, "It's All Connected."

The video campaign was designed to engage customers and employees by creating and posting short videos showing how employees were connected to the Green Line project. For example, a DART police officer talked about her role in ensuring passenger safety, while a graphics designer highlighted his behind-the-scenes role in updating the system map. DART's goal was to post one update per week until the project was completed.

By featuring its employees in the videos, especially those who normally did not work with the public, DART was able to "put a human face on a bunch of steel, concrete, and copper." Media relations staff met with senior executives at the early stages of the project to garner internal support for the project, and DART characterizes employee response to the project as "terrific."

Once the Green Line opened, DART found other ways to use YouTube and, in particular, opportunities to feature operations personal. Because the new rail line resulted in
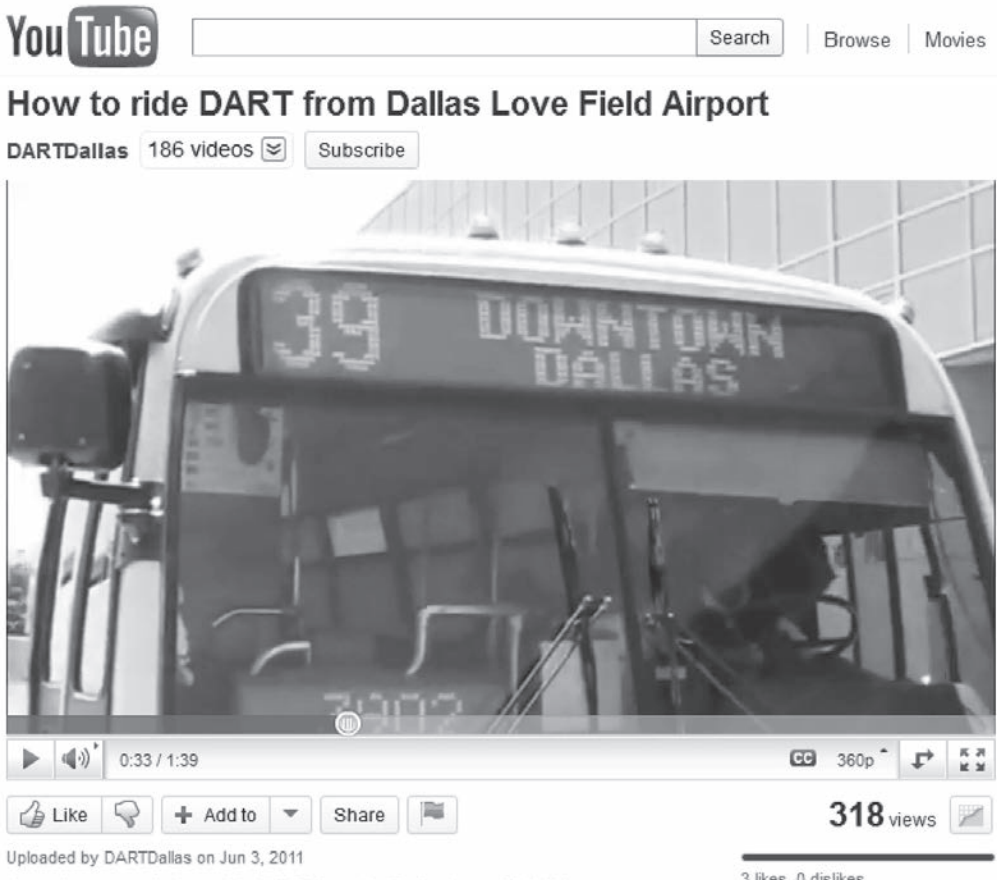
FIGURE 10. DART posts instructional videos on YouTube.

many bus route changes, for example, DART created videos with bus operators showing customers how to make connections at the new stations. Using operators allowed DART to continue its efforts to build a personal connection with its riders.

Agency Considerations

Acknowledging that customers have multiple transportation alternatives, DART hopes to use social media platforms to personalize the riding experience. In the survey, DART rated social media "very effective" for communi-

cating with riders and with distributing real-time information and "effective" for other goals, including improving customer satisfaction and improving the agency image.

Also in the survey, DART reported using Facebook, Twitter, and YouTube to reach everyday riders, students, young adults, seniors, people with disabilities, low-income communities, and external stakeholders. The agency considered social media tools "effective" for reaching these groups, with the exception of seniors and low-income communities. For these markets, social media were "slightly effective."

DART's social media policy is an addendum to the agency's communications policy and governs employee access and online behavior. Only members of the media relations staff are authorized to publish official communications; according to DART's survey responses these employees spend about 180 hours per month on social media activities. Any DART employee posting to social media sites is required to identify himself or herself as an employee and to refer readers to the agency's website.

DART tracks page views and followers for its social media activities. The primary goal is to make sure that traffic continues to grow.

Lessons Learned

DART offered the following advice and lessons learned.

- **Recognize the strengths of each social media platform**—DART tries to take advantage of the unique strengths of each social medium platform and says,

"If you're using everything for everything, you're not using everything effectively."

- **Emphasize the message, not the technology—**DART's videos showcasing bus operators are deliberately informal.
- **Consider long-term costs—**Although the barriers to entry are low for Facebook and Twitter, the costs of staying are high. Social media sites require active monitoring and maintenance.

Social Media Links

Website: www.dart.org

Facebook: www.facebook.com/DARTDallas

Twitter: www.twitter.com/dartmedia

YouTube: www.youtube.com/dartdallas.

LEHIGH AND NORTHAMPTON TRANSPORTATION AUTHORITY

LANTA operates bus and demand-response services in Pennsylvania's Lehigh Valley, including the cities of Allentown and Bethlehem. LANTA's service area covers 106 square miles with a population of 389,000; in 2009, the agency provided 6.0 million unlinked passenger trips.

Social Media Overview

According to agency staff, LANTA currently uses the following social media platforms: agency blog, Facebook, Twitter, and YouTube. The agency uses Facebook (see Figure 11)

and Twitter to provide service information, both real-time alerts and general information, as well as news, meeting notices, contests and promotions. LANTA's blog covers less time-sensitive information, including feature stories, agency news, press releases, and public hearing comments. The agency uses YouTube for news, contests, how-to-ride videos, and television commercials. Generally, LANTA updates its Facebook page first and uses an automated service to distribute the posts to other social media channels. Service alerts are updated as needed, and LANTA posts updates for news items a few times a week. Other features are generally updated once a month or less frequently.

Agency Considerations

LANTA made the decision to use social media after an informal assessment of the Web 2.0 environment. As other public agencies began to enter the social space, LANTA recognized the potential benefits of joining the conversation. Initially concerned about a digital divide, the agency researched the characteristics of social media users and saw the level of penetration across all markets. Convinced that people in all demographic groups were engaged with social media, LANTA moved ahead.

The agency first started with MySpace, but quickly moved to Facebook to take advantage of the better infrastructure, additional utilities, and the flexibility to create a page more suitable for a government organization. The transition to Facebook is now complete and LANTA no longer uses MySpace. LANTA officials perceive the difference as follows: "Facebook was serious; MySpace was

FIGURE 11. LANTA uses Facebook to connect with its community.

more social." The agency struggled a bit at first, and did not consider the MySpace interface to be intuitive. However, LANTA observed how other organizations used social media and quickly adapted to what an executive called "a whole new world." Twitter also had a learning curve, with its 140-character limit and specialized style and syntax, but again the agency found its voice.

The agency's use of social media outlets supports a number of strategies. These include building stakeholder

and general support for public transit and presenting transit as a "hip" and relevant entity within the community. The social media campaigns also address funding issues, both locally and on a state level. Finally, the intent of LANTA's board of directors is to expand use among discretionary or choice riders to increase ridership and to add value to the product itself. Although the board fully understands the role of transit in meeting social service needs, they also see the attraction of choice riders as essential to the growth and improving the image of public transit.

Accordingly, LANTA's Facebook fans include a mix of consumers, employees, and stakeholders (e.g., chamber of commerce, organizations promoting downtown, environmental groups, restaurateurs, and advocates for regionalization). Although most of LANTA's riders have cell phones and Internet connections, the agency estimates that only 20% to 30% of its social network followers are consumers. Six colleges are located in the Lehigh Valley. Because these institutions provide their own transportation services, LANTA does not perceive area students as the primary target market for its social media strategy. However, the Lehigh Valley is home to many young adults who have opted to remain in the area after graduating from college or who chose to return or relocate to the community because of economic and lifestyle goals. These 20- to 34-year-old young professionals expect area service providers to offer online access to information as well as to participate in social media.

LANTA does not have a social media policy, but the agency may develop one in the future. Although the agency

initially anticipated some negative postings from disgruntled employees, this has not been the case. The agency also dismisses concerns about cybersecurity, saying that this is an issue for all Internet use, not just social media.

LANTA tracks fans and followers, but does not use detailed analytics to measure the performance of its social media activities. Saying that no one can predict what the constantly evolving social media space will look like in five years, LANTA prefers to "go with the flow." Social media complement other communications channels for LANTA, but do not replace them.

The ability to use social media at no cost to the agency was a major consideration for LANTA. A senior manager creates the updates with support from administrative staff; together, they spend about 16 hours per month on social media activities.

Lessons Learned

LANTA offered the following advice and lessons learned.

- **Find the right voice**—Government agencies have to adopt a voice for social media. It can be humorous and light-hearted, but also serious and reflective of the organization.
- **Find the right person**—Find someone on staff that enjoys social media and make sure that individual knows the parameters for the agency.
- **You do not have to be an innovator**—LANTA learned about social media by following what other agencies were doing.

- **You have nothing to lose**—It can be a little scary at first, but social networking is worth trying.

Social Media Links

Website: www.lantabus.com/

Facebook: www.facebook.com/pages/LANTA-Lehigh-Valley-Metro/129767331032

Blog: lantanews.blogspot.com/

Twitter: www.twitter.com/LANTALV

YouTube: www.youtube.com/LANTALehighValley.

METROPOLITAN TRANSPORTATION AUTHORITY

MTA is a multimodal transportation organization in the New York metropolitan area. MTA has several operating subsidiaries, including New York City Transit (NYCT), Long Island Railroad (LIRR), Metro-North Railroad, Long Island Bus, and Bridges and Tunnels. NYCT provides bus, subway, bus rapid transit, and demand-response service to an area of 321 square miles with a population of 8 million, and it provided 3.2 billion unlinked passenger trips in 2009.

Social Media Overview

Agency staff reports that MTA uses the following social media channels: Facebook (see Figure 12), Twitter, YouTube, and Flickr. In addition, the agency has a Google group for appli-

cation developers. While recognizing that each platform is suited to different purposes, MTA considers Twitter the most effective platform because it is up-to-the-minute and allows one-on-one communication. Flickr has been the least successful channel because it lacks the kind of user interaction available with Facebook and Twitter, but it has served well as an educational and cultural resource, as an online gallery, and as a way for the press office to quickly share photos with editors. MTA will continue to post photographs on Flickr, especially for events. However, the agency will use Facebook and Twitter for in-the-moment connections, saying "The home run hits are there." Although the MTA posts some service alerts on Twitter, the agency's overall strategy is to use Twitter to promote the automated SMS and web-based alerts. In addition, MTA also uses social media to foster goodwill among customers, to share information about agency services, and to notify riders about special deals, such as discounts for passholders.

Agency Considerations

As a large agency with multiple subsidiaries, MTA faces a set of unique challenges. The various subsidiaries have an online presence—including (but not limited to) separate Twitter feeds for NYCT, LIRR, Metro-North Railroad, and MetroCard—and ensuring a consistent message is critical. MTA's press office typically defines and distributes the common agency message within MTA (especially important for weather-related information), whereas staff at the subsidiaries take responsibility for developing mode-specific messages tailored to their customers. Despite its size, MTA does not have dedicated staff for social media. Employees from marketing
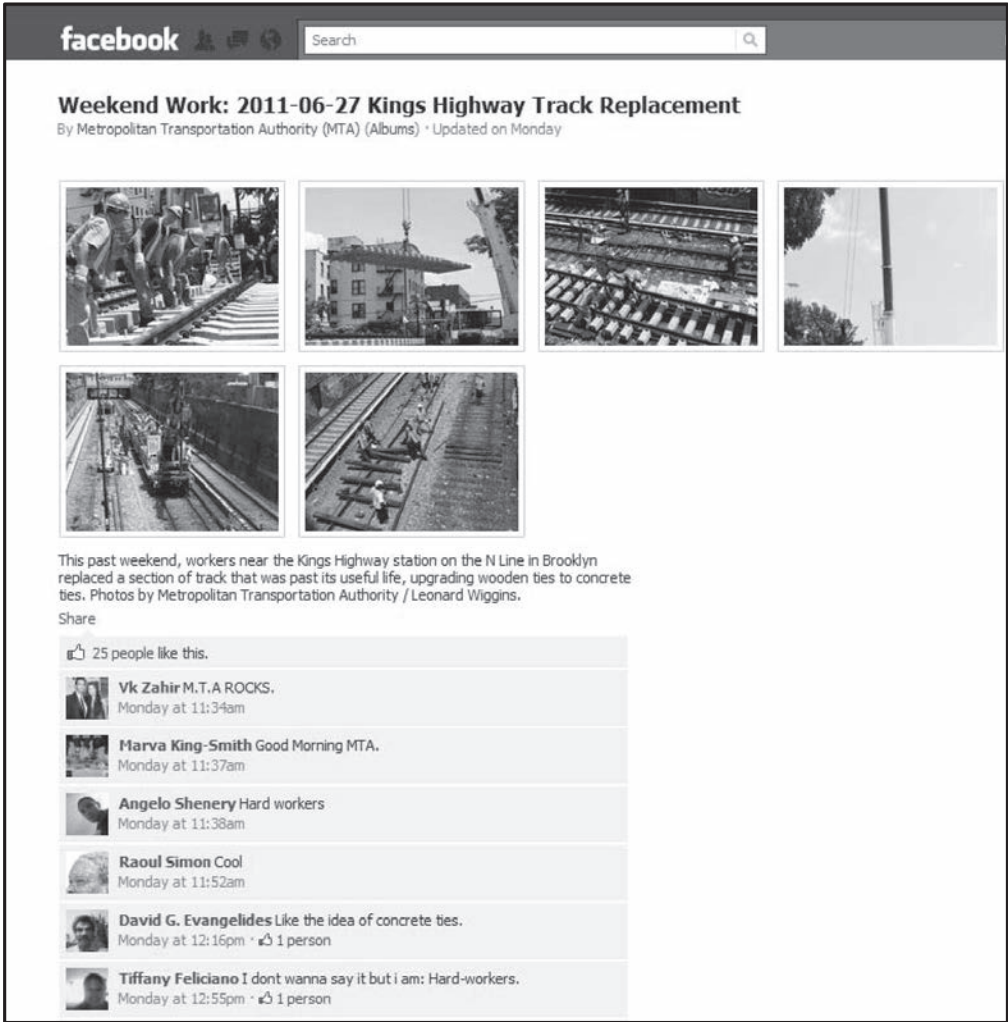
FIGURE 12. MTA's Facebook page shows photographs from a track replacement project.

and communications (including the press office) and administrative offices have primary responsibility for MTA's social media activities. Marketing and communications employees dedicate about 40 hours per month and administrative personnel allocate 20 hours. These individuals frequently call on workers in other groups within the MTA to provide informa-

tion for the authority's social media channels. "We don't usually lack for content," one communications employee said. MTA staff took steps to receive all necessary internal reviews and approvals before moving into social media, working with in-house counsel to review the legal implications, including censorship and privacy issues. Although MTA does not have a written social media policy, the agency has developed certain agency practices concerning records retention. MTA retains electronic and paper copies of social media posts and staff members summarize social media activities for senior management in monthly reports. Personnel use readily available statistics to track social media activity, to assess the impact of changes, and to identify successful practices.

As a public authority, MTA welcomes feedback while acknowledging that it is difficult to dissuade people from posting negative comments. The agency accepts the good with the bad, but reserves the right to delete inappropriate content. NYCT's Facebook page posts the following comment policy:

> Please respect your fellow readers and exercise appropriate restraint in drafting and submitting a post. In that regard, MTA New York City Transit reserves the right to delete any post that contains language or imagery which: is off-topic, is defamatory, compromises public safety or operations, disparages a group or individual on the basis of ethnicity, race, gender, religion, age, disability or sexual orientation, is commercial, contravenes law, contains spam, invades personal privacy, has sexual content, is obscene, includes any link to another site, or infringes on a copyright or other proprietary right.

Inappropriate comments notwithstanding, the MTA strives to maintain an open online dialogue and believes that its riders would not accept anything less. The agency responds to comments on a case-by-case basis and encourages readers with specific questions to contact customer service directly.

MTA has learned that social media can be especially effective during emergencies. In the winter of 2010–2011, MTA had to deal with the impacts of several major snowstorms and tried to stay in touch with customers before and during the weather emergencies. Before the storms, MTA used social media channels to show customers how the authority was preparing its equipment to operate during the inclement weather. During the storms, MTA tried to communicate as openly and honestly as possible despite difficult conditions. Social media updates encouraged passengers to travel safely and to check the MTA website for updated service information. Staff posted messages every hour or two, with a goal of keeping customers informed, and took advantage of incoming messages to identify trouble spots. MTA also used its social media channels to post photographs and video clips showing crews working during the storm to demonstrate the "herculean task our operations folks faced to keep service running."

On an everyday basis, social media benefit the MTA by allowing the agency to distribute its message unfiltered by reporters or traditional media outlets and provides other channels for individuals to get information. This, in turn, has helped personalize an agency that many perceive as a "big faceless bureaucracy."

One challenge for the MTA is managing customer expec-

tations. The more the agency uses its social media channels, the more the public expects. The agency posts a disclaimer on its social profile pages saying that the sites are only monitored during business hours, but perhaps because MTA's service runs around the clock, customers still expect responses to their questions and comments on a 24/7 basis.

Lessons Learned

MTA and NYCT offered the following lessons learned:

- **Cover your bases**—MTA took pains to get all necessary reviews and approvals from the agency's chain of command, including in-house counsel, before going online.
- **Take things one step at a time**—MTA says that the agency crawled for a good period of time, then walked, and now is running.
- **Don't overlook the value of incoming messages**—During a series of snowstorms, messages from customers helped MTA identify trouble spots in the field.
- **Set clear boundaries and guidelines**—The MTA is a victim of its success. The more the agency uses its social media channels, the more the public expects. MTA has posted disclaimers saying that its social media sites are not monitored outside of business hours, but customers want responses around the clock.
- **Have some fun**—For a while, MTA posted a series of themed Twitter tweets keyed to days of the week, such as "What's Up Wednesdays." These were discontinued because of staffing limitations; however, MTA would like to reinstate the series should resources become available.

Social Media Links

Website: www.mta.info

Facebook: www.facebook.com/MTA.info

Twitter: www.twitter.com/mtainsider

YouTube: www.youtube.com/mtainfo

Flickr: www.flickr.com/photos/mtaphotos.

 MOUNTAIN LINE

The Monongalia County Urban Mass Transit Authority, known as Mountain Line, provides bus and demand-response service in Morgantown, West Virginia. Mountain Line's service area comprises 201 square miles with a population of approximately 73,000 and includes the campus of West Virginia University (WVU), with a student enrollment of about 28,000. Ridership was 1.1 million trips in 2009.

Social Media Overview

Mountain Line staff report using the following social media applications: Facebook, Twitter (see Figure 13), and LinkedIn. The agency uses Facebook for communicating both real-time and static information, agency news and press releases, meeting notices, contests and promotions, and job listings. Twitter is used for time-sensitive information such as service updates, weather and traffic alerts that affect bus service, agency news, and contests and promotions. LinkedIn is reserved for general agency information. Mountain Line also monitors its presence on Foursquare by verifying

its sites and posting tips, but the agency has not formally taken over the sites or made offers through the application.

Agency Considerations

Mountain Line updates service information and alerts several times a day through Twitter. Other items are updated less frequently, typically a few times a week for agency news and press releases and less often for other items. Mountain Line's Twitter account is configured to feed posts automatically to the agency's Facebook page. Senior management, marketing staff, and customer service share responsibility for generating the content for social media posts. The general manager usually provides the early morning Twitter updates and turns the responsibility over to the marketing officer during working hours.

Mountain Line's manager takes a hands-on approach to social media for two reasons. First, updating the Twitter account is not time-consuming. Second, as a small agency, Mountain Line does not have many employees who are both qualified and available to post social media updates. Outside of business hours when live Twitter posts are not available, customers can access the agency's automated service updates on the main website. Mountain Line estimates that staff spends about 36 hours a month on social media updates.

Mountain Line describes its strategy for using social media as follows:

- Find the best way to communicate with riders using the tools they already use.
- Make it easy for the customers to get the information they need.

Mountain Line believes that university students along with choice, or discretionary, riders constitute the primary audience for its social media communications, especially Twitter updates. Although these individuals may have better access to technology than some rider groups, the agency believes that its social media strategy does not exclude other riders. Most customers can receive text messages on their cell phones, enabling them to subscribe to Twitter status updates as text messages. In addition, customers can access real-time service updates by means of telephone, on display boards at several locations, and on the agency's website. Mountain Line does not consider social media an effective way to reach stakeholders such as community-based organizations; overall, these groups have not adopted social media.

Mountain Line does not have a social media policy. Only two people generate the online content for this small agency, and they can easily discuss issues or concerns on an informal basis. If the agency developed a policy, it would most likely focus on messaging, image, and information control. Although such a policy could be beneficial, the general manager questioned whether a social media policy alone could take the place of hands-on training and experience.

As with most transit properties, Mountain Line has received negative comments on Facebook and Twitter. Although the agency deletes or edits material it considers offensive, managers treat criticism as an opportunity to offer an explanation and to correct misinformation. Social media allow Mountain Line to answer rider questions in a public forum, on the
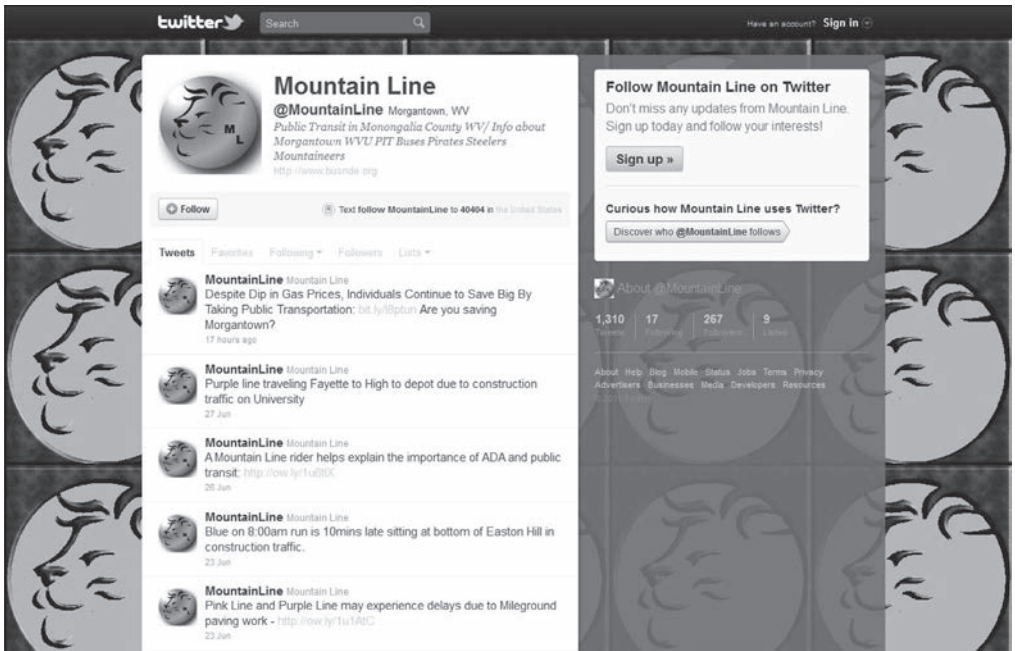
FIGURE 13. Mountain Line uses Twitter to provide service updates and general information.

assumption that if one individual has a question, it is likely that others want to know the same thing.

Mountain Line uses several approaches to track the effectiveness of its social media activities, including built-in statistics and third-party analytic applications. The agency believes that the combination of social media and service updates on the website has reduced the burden on its receptionists, who also serve as customer service agents. No formal metrics are available to document the impact, but the agency estimates that it sends out about one to five tweets per day to approximately 500 followers. Although social media activities may not reduce the number of completed calls, particularly during snowstorms or similar times of high demand for information, these updates may help Mountain

Line share information with more people than would ordinarily be possible with phone calls alone.

Lessons Learned

Mountain Line Transit offered the following advice and lessons learned.

- **Focus on your target market**—For Mountain Line, social media have been a critical component of timely and effective communications with the WVU community, and many of the agency's electronic communications focus on the student population.

- **Treat negative feedback as an opportunity**—Online criticism provides managers with an opportunity to answer questions, offer explanations, and correct misinformation.

- **Don't annoy your audience**—Try to find the fine line between providing customers with helpful information and bombarding them with too many posts.

- **Have fun**—Mountain Line never forgets that it operates in a university town. College students appear to appreciate receiving the occasional status update, for example, when a beer truck blocks the bus.

Social Media Links

Website: www.busride.org

Facebook: www.facebook.com/MountainLine

Twitter: www.twitter.com/mountainline.

TRANSLINK

The South Coast British Columbia Transportation Authority, known as TransLink, is the regional transportation operator for the Vancouver metropolitan area, delivering bus, subway, commuter rail, and ferry services through a series of subsidiary companies. The authority reported 189.1 million revenue passengers on scheduled and paratransit services in 2009.

Social Media Overview

TransLink staff reports using the following social media applications: agency blog (*The Buzzer*), Facebook, Twitter, YouTube, LinkedIn, and Foursquare. TransLink moved into social media as part of an overall strategy to become a more customer-focused organization, and Twitter is a key element of that approach. In addition to using Twitter to offer transit service information and updates, TransLink now provides customer service through Twitter as well, as described in the following section.

TransLink was the first Canadian transit agency to develop a partnership with Foursquare and launched its own badge in February 2010. TransLink initially began to use Facebook as a way to generate interest in the agency's new fare card by holding a contest for a new name. With that campaign complete, employees are looking into new ways to take advantage of Facebook's potential reach, which they believe is substantially larger than Twitter's audience.

Using Twitter for Customer Service

TransLink began using Twitter in preparation for the 2010 Olympic Winter Games. Initially, media relations staff used the service to communicate with the press; however, customer questions soon started appearing, especially about service delays and interruptions. During the Olympics, TransLink staffed its Twitter account from 5:30 a.m. to 1:30 a.m. with about a dozen people from the communications department. After the Olympics ended in February 2010, Twitter use declined and the account reverted to the media relations department with reduced staff coverage.

Looking for other opportunities to use Twitter, employees saw an opportunity to tap into their experience connecting with riders during the Olympics. Staff proposed developing a Twitter communications channel to complement the agency's customer service call center. They built a business case to get internal approval to add a dedicated position, including statistics about the growth in the volume of Twitter followers and the number of commendations the agency received lauding its social media efforts. In November 2010, TransLink integrated Twitter into its customer service group for one-month pilot test, which was subsequently extended indefinitely.

Now each customer service shift has one individual responsible for following and responding to customer comments and questions through Twitter. Figure 14 shows the trend in TransLink's tweets from January 2010 through May 2011. As the chart shows, tweets spiked in February
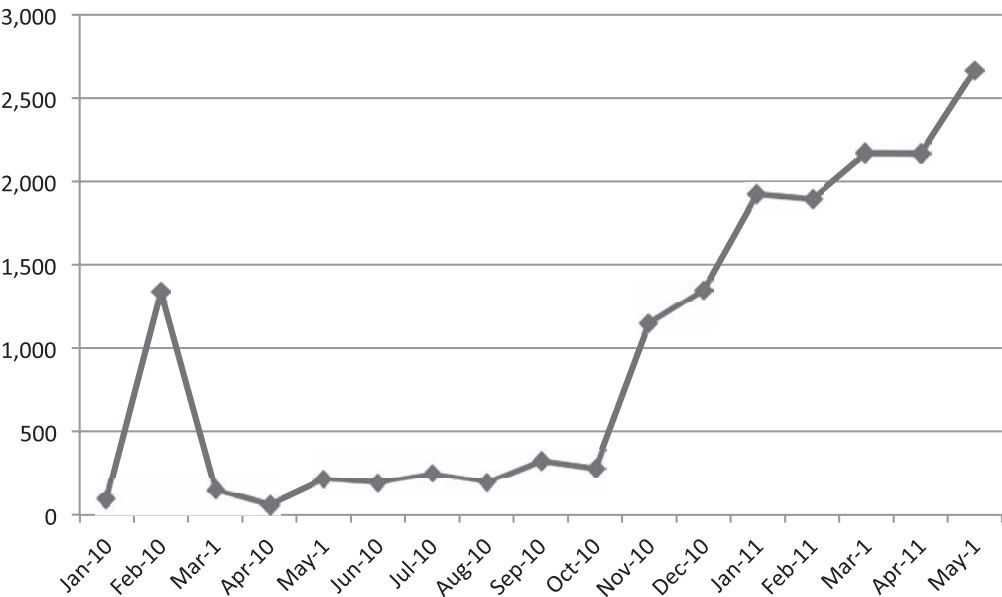
FIGURE 14. Average monthly tweets posted by TransLink, January 2010–May 2011.

2010 during the Olympics and again in November 2010 when the customer service pilot was implemented. The number of tweets has grown nearly every month since then and by May 2011, six months into the program, the total was more than double the November volume and roughly twice the number of tweets in February 2010.

TransLink has not seen any change in the volume of telephone calls coming into the customer service center since the agency increased its use of Twitter. Instead, the agency believes that using Twitter has allowed TransLink to reach new customers who were not previously contacting customer service, including students and young working professionals, those under 35 years old (see Figure 15).

Agency Considerations

TransLink believes that social networking is not just a way for agencies to repackage their traditional customer communications. Instead, agencies have to be prepared to respond to customers in the social space and to engage them in conversation. A key benefit of engaging customers is the unparalleled opportunity to gain insight into customer attitudes and priorities. In the survey, TransLink said, "Social media is a little like having a direct line into what customers are thinking." Agencies that know how to tap into that information can learn a great deal about "customer pain points" and how to improve service.

TransLink allocates considerable resources to its social media activities. Individuals in customer service dedicate about 200 hours per month to social media, as do marketing and communications personnel. Also participating in social media activities are senior managers (30 hours per month), information technology staff (10 hours), and consultants (5 hours). However, even with this level of commitment, TransLink's survey responses emphasized the importance of working closely with staff throughout the entire organization to follow through on the conversations initiated in the social space:

> Don't think that social media is just another tool limited to the communications department. It's a whole new channel through which your customers can reach you, and if done right, their questions and prompts will affect how other business units work. Constant questions about slow service should prod transit depots to analyze and respond; questions about policy should receive answers and consideration from policy makers.
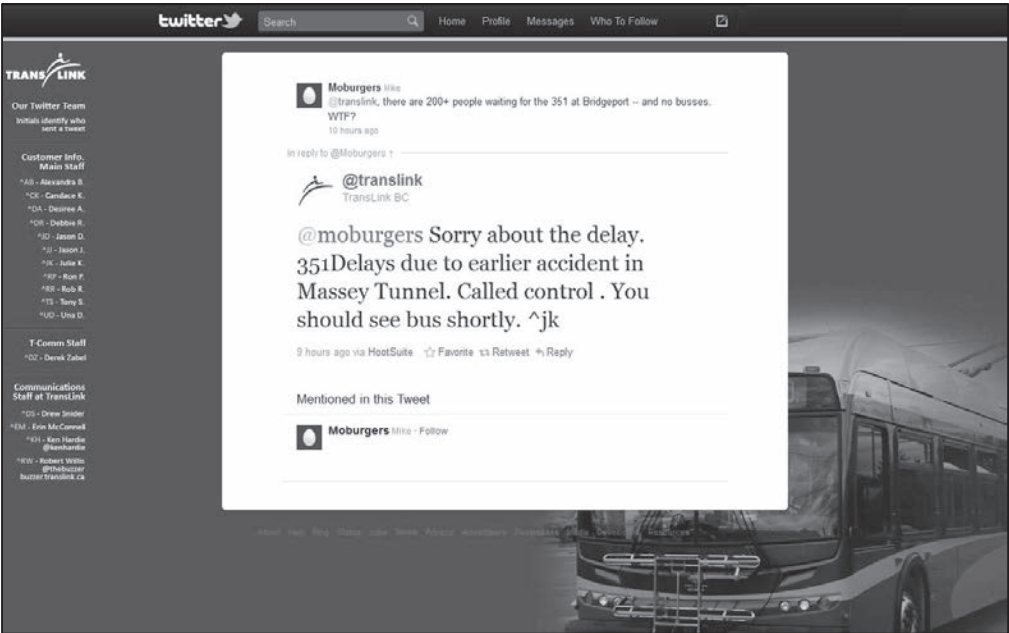
FIGURE 15. TransLink responds to customer comment via Twitter.

Although TransLink tracks basic metrics, the agency sees the need for analysis that goes beyond tracking the number of followers and volume of tweets. The next step would be to identify key goals and set up measurements to track progress toward those goals. TransLink would also like to better integrate social media into its call center and customer service processes to ensure central collection of issues and consistent responses. TransLink was initially concerned about attracting criticism and negative feedback through its social media activities, but instead found an audience eager to participate in conversations. The agency's concerns have shifted from worry about online criticism to questions about how to engage a very large audience. So far, TransLink has focused on listening to its followers with a goal of delivering the information they are asking for.

Over time, the agency hopes to tap into its base of social media followers to help change customer behavior and encourage people to travel smarter. However, in the short term, social media also provide the agency with an opportunity to have fun. Free from the constraints of traditional media, *The Buzzer* "tackles all kinds of stories about transit history, the SkyTrain chime, oddities of the system, and more." Taking the opportunity to celebrate transit in a light-hearted way allows TransLink to build relationships with its customers and enhance its own reputation.

Lessons Learned

TransLink staff offered the following advice and lessons learned.

- **Social media platforms are not a new pipe for old messaging**—Customers expect two-way conversations, and they expect to talk to you on the same level.

- **Build your brand by building relationships with customers**—As you treat people well and respond thoughtfully, your customers will come to trust and rely on you.

- **You can educate, inform, and delight**—Producing entertaining content helps build real relationships with customers, makes them happy, and ultimately builds your brand.

- **Social media provide insight into customers**—Customers will immediately tell you what you are doing wrong and, occasionally, what you are doing right.

- **Social networking is harder than it looks**—Building relationships through social media is basically making friends with people one by one. It requires a lot of patience, endurance, and good humor and a lot of knowledge about the organization.
- **Social media will (and should) affect your entire organization**—If you use social media correctly, the questions and comments will prompt responses from departments throughout the organization. Legitimate questions and complaints can lead to real change or thoughtful responses from the relevant departments—not just sympathy and excuses from communications or customer service staff.
- **Set the tone**—After a customer reads your comment, he/she should have the impression that you listened, that you care and respect customers, and that you are someone the rider would not mind talking to again.

Social Media Links

Website: www.translink.ca

Blog: buzzer.translink.ca

Facebook: www.facebook.com/translink

Twitter: www.twitter.com/translink

YouTube: www.youtube.com/translink

Foursquare: foursquare.com/translink

CHAPTER SIX
CONCLUSIONS

Social media comprise a group of web-based applications that encourage users to interact with one another. Facebook, Twitter, and YouTube are among the best known social media channels; others include Flickr, LinkedIn, Foursquare, and MySpace. This synthesis explored how transit properties use social media. A review of the relevant literature in the field was combined with findings from a survey of selected transit agencies in the United States and Canada to report on the current state of the practice. Based on survey results, several case examples were developed to describe innovative and successful practices in more detail.

OVERVIEW OF SOCIAL MEDIA

Interactivity is what distinguishes social networking sites from traditional (or "static") websites. Social media platforms encourage users to share their experiences, opinions, knowledge, and sometimes their locations with one another. These connections can contribute to a sense of engagement or loyalty among users.

Agencies and officials at all levels of government use social media and, according to one study, 66% of government agencies used some form of social networking in 2009. Most government agencies report they use social media to stay engaged with citizens, for public information and outreach, and for

employee learning and development. Transportation officials often take advantage of the real-time nature of Twitter and Facebook to post service updates and announcements.

The characteristics of social media users are not yet well documented and questions remain about whether social media platforms can bridge the digital divide, or the gap between people who have access to IT and those who do not. Although not conclusive, research suggests that social media attract users from multiple demographic categories. Based on statistics compiled for 19 social networking sites, the average user is 37 years old; 53% are female. Although the vast majority of adults aged 18–29 were social networkers (86% in 2010), so were nearly half of those aged 50–64 (47%) and a quarter of those 65 and over (26%). Older users are adopting social media at a faster rate than younger adults; for example, the number of Internet users aged 50–64 who used a social networking site grew 88% between 2009 and 2010, whereas the growth rate was 13% for those aged 18–29. The survey shows that individuals with more education and higher household incomes are more likely to use online government services than others.

Research about social media by race and ethnicity is still limited; however, some recent surveys suggest that minority Americans are active users, at least as far as mobile access is concerned. African–Americans and Hispanics are more likely than whites to own a cell phone and about one-third of them use those phones to access social networking sites compared with 19% of whites. Research about other minority groups was not available.

The science of measuring social media use is still evolving. Many social media platforms provide some level of built-in statistics. In addition to these prepackaged statistics, numerous free and fee-based third-party applications offer additional insight into the effectiveness of social media activities.

HOW TRANSIT AGENCIES USE SOCIAL MEDIA

The surveyed transit agencies considered the following goals for social media to be "very important:"

- Communicating with current riders (97% of responding agencies)
- Improving customer satisfaction (85%)
- Improving agency image (76%).

Agencies used different social media strategies to accomplish these goals, but most used Twitter (91% of responding agencies), Facebook (89%), and YouTube (80%). Twitter was frequently used for providing time-sensitive information such as service alerts, whereas agencies selected both Twitter and Facebook for disseminating agency news, meeting and event notices, contests and promotions, and general service information.

Responding agencies considered social media "very effective" in accomplishing the following:

- Communicating with current riders (58% of responding agencies)
- Distributing real-time information (43%)
- Distributing general service information (42%).

As these responses indicate, communicating with current riders was the most important goal for agencies and also the area where they considered social media to be most effective. For other highly rated goals, including improving customer satisfaction and agency image, survey responses showed a gap between the importance of a goal and its perceived effectiveness. In a few cases, there also appeared to be a disconnect between stated importance and effectiveness. For example, agencies considered social media applications to be most effective for distributing real-time and general service information; these attributes did not rank among the most important for agencies on average.

Although social media channels have users in all demographic groups, survey respondents were especially likely to use these applications to reach everyday riders, young adults and students. Consistent with the way agencies reported using these platforms, they also rated social media most effective for communicating with these groups and the vast majority used Twitter and Facebook to do so. At the other end of the spectrum, agencies considered social media to be least effective for reaching seniors, people with disabilities, and low-income communities. Note that the survey did not define such market groups as *everyday riders, young, adults,* and *low-income communities,* and agencies may have interpreted them differently when responding.

BARRIERS TO USING SOCIAL MEDIA

Industry experts and survey respondents identified a series of barriers to using social media. These included:

- **Resource requirements**—Agencies responding to the survey reported that staff availability was the greatest barrier to adopting social media.

- **Managing employee access**—As the line between private and professional communications blurs, public- and private-sector agencies are having to address employee use of social media.

- **Responding to online criticism**—Survey respondents expressed concern that social media would increase criticism from frustrated riders and disgruntled employees.

- **Accessibility**—Although Internet accessibility for people with disabilities has improved substantially over the past few years, social media applications have lagged, and their heavy reliance on graphics, videos, and user-generated content has created accessibility challenges.

- **Security**—Information technology professionals and Internet security experts warn that using social media could increase an organization's exposure to a range of cyber threats, from spam to malware.

- **Archiving and records retention**—Industry analysts believe social media will soon become subject to record-keeping and disclosure rules.

- **User privacy**—Although public agencies generally have privacy policies governing collection and use of personal information on their own websites, social media sites on third-party platforms are typically governed by the privacy policy of the application.

- **Changing social media landscape**—As the social universe expands, transit agencies will have to work harder to keep track of changes in this dynamic environment and to adapt accordingly.

SOCIAL MEDIA POLICIES

Although the practice is not universal, many public agencies have adopted social media policies to provide guidance for addressing these issues. Researchers at the Center for Technology in Government identified eight common elements in government social media policies:

- **Employee access**—Agencies usually manage access either by restricting the number or type of employees who can access social media sites or by limiting the types of sites that employees can access.

- **Account management**—Many agencies required the chief information officer and/or the communications officer to oversee social media accounts.

- **Acceptable use**—Agencies are struggling to define the lines between personal, professional, and official agency use of social networking sites.

- **Employee conduct**—Most agencies referred to existing policies for employee conduct, although a few addressed some behaviors specific to social media, such as the need for transparency.

- **Content**—Most agencies tried to maintain some level of control over online content, either by assigning management responsibility or retaining the right to review content.

- **Security**—Most policies echoed agency Internet security guidelines, although a few specifically emphasized the importance of password control.

- **Legal issues**—While some policies simply advised employees to follow all applicable laws, several focused on records retention and others required sites to post specific disclaimers.

- **User conduct**—About a dozen policies included rules of conduct for readers and commenters, including restrictions on offensive language.

Among the agencies responding to the survey, only 27% had a social media policy, but more than half (58%) had one in development.

RESOURCE REQUIREMENTS

Most agencies indicated that the marketing and communications departments were responsible for generating content for social media applications, either alone or with other departments. Agency responses were analyzed based on operating setting (large urban versus small urban/rural). As might be expected, large urban agencies devoted more staff resources to social media than those operating in smaller environments. More than half of the large urban agencies responding to this question allocated at least 40 hours of staff time per month to social media activities, including 23% that reported an investment of more than 80 hours per month. The vast majority of small agencies (86%) reported a commitment of 40 hours per month or less.

Marketing and communications staff was most likely to participate in social media programs across the board. At large urban agencies, the reports ranged from a low of 2–3 hours per month to a high of 200 hours per month; at smaller agencies the range was narrower, from an estimated 3 hours to 20 hours per month. Among large agencies, social media responsibilities were also allocated to community relations staff (a high of 170 hours per month) and customer service (a high of 200 hours per month). Other departments, for example, legal and human resources had a small role, if any.

LESSONS LEARNED

Surveyed agencies offered a wealth of advice and experience. Key lessons are summarized here, based on respondents' perceptions of the challenges and benefits of using social media.

Keep Social Media in Perspective

For many agencies, social media users are perceived to be only a small segment of the rider population. Although this market is likely to grow, agencies stressed the importance of integrating newer social media with more traditional forms of rider communication. In addition, Bay Area Rapid Transit encouraged agencies to focus on providing basic rider information tools—including online trip planning and real-time service information—before spending time on social media.

Consider the Organizational Impacts

Several agencies emphasized the importance of obtaining the necessary internal approvals before implementing social

media campaigns. New York's Metropolitan Transportation Authority made sure to obtain reviews and approvals from in-house counsel before going online. Dallas Area Rapid Transit secured support from senior management before implementing its YouTube campaign.

Agencies also stressed the importance of understanding the true costs of social media. Although these applications are generally free, or require minimal investment, the long-term costs of maintaining the sites, including frequent updates and active monitoring, can be substantial. Even sites specifying business hours discovered that readers expected answers to their questions at all times.

When used effectively, social media can involve departments throughout the organization. Meaningful responses from the appropriate departments result in more online credibility than excuses from communications or customer service staff.

Find the Right Voice

The language of social media tends to be informal and conversational. Although agencies may not want to adopt the abbreviations that are characteristic of text messaging, they need to try to find the right voice for their social media communications. Agencies using social media stressed the importance of avoiding bureaucratic jargon and using humor whenever possible.

Agencies also emphasized the importance of acknowledging errors and taking responsibility for their missteps. Even if an organization cannot solve a particular problem, customers

are more likely to believe that the agency cares about its customers and listens to their concerns. The principles of humility, transparency, and authenticity are paramount.

Listen, Listen, Listen

Agencies generally reserved the right to delete offensive or inappropriate comments, but they viewed negative comments as an opportunity to learn from their customers and to correct misinformation. Social media can provide transit operators with unfiltered customer feedback. If they are willing to listen, agencies can learn what they are doing right and what they are doing wrong.

Customers can also provide transit properties with valuable information about conditions in the field. During a series of severe snowstorms that affected travel throughout the New York metropolitan area, messages from customers helped the Metropolitan Transportation Authority identify trouble spots.

Respect the Strengths of Social Media

Social media are not simply new channels for traditional communications. Agencies that recognize this can take advantage of the unique strengths of each social medium platform and tailor their messages accordingly. Twitter, for example, can be best for immediate communications, whereas blogs may encourage more in-depth conversations. Several agencies use social media to direct customers to the main agency website, especially during special events or emergencies.

Have Fun

In addition to its advantages for communicating with customers and stakeholders, social media can be fun. Posting entertaining content can remind customers about the people behind the service and help the organization build stronger relationships with its community of riders and stakeholders.

Just Get Started

Agencies followed different paths to social networking. Some used a measured approach; the Metropolitan Transportation Authority, for example, described its approach as crawling, then walking, and finally running. For TransLink, the Olympic Games provided an opportunity to test the reach of social media. Some agencies monitored other organizations' efforts before they jumped in. However, no matter how they got there, agencies agreed that social media were worth trying.

Keep Moving

Social media are evolving and several agencies adapted their social media strategies as they moved forward. The challenge for agencies is to stay flexible, expect the unexpected, and adapt accordingly.

AREAS FOR FUTURE STUDY

The synthesis study identified the following gaps in knowledge or areas for additional research.

Social Media Policy

Although industry experts believe that having a social media policy is critical, most of the transit properties participating in the survey did not have guidelines in place. About half were in the process of drafting a policy and others incorporated social media guidance into existing agency policies or developed discrete elements such as Facebook posting guidelines. A few smaller agencies, where senior executives developed much of the online content, did not see the need for a social media policy. Additional research could identify elements of a social media policy that are relevant to public transit agencies.

Social Media Performance Metrics

Social media platforms are generally free of charge, but they can incur long-term costs to an agency. Although the agencies responding to the survey were generally able to estimate the number of hours employees devoted to social media, most did not put a price tag on the effort. Moreover, most used a very basic approach to measuring the effectiveness of their social media activities by relying on informal feedback and using built-in metrics, such as counting "friends" or followers. Just over half used a third-party application such as Google Analytics. Although these metrics can provide a good overview of activity, they do not provide all the information agencies may need to better understand the effectiveness of their social media activities. Additional research could provide transit agencies with the tools for estimating the costs and benefits of social media, perhaps by including sample metrics or performance indicators drawn from other industries.

Cybersecurity Concerns

Industry experts consistently emphasized the vulnerability of social media applications to security threats, including viruses and malware. However, most of the survey respondents gave this issue low priority, and the vast majority said they had not encountered any cybersecurity issues related to their use of social media. The reasons for this apparent disconnect are not known. The security threats may be overstated or the responding agencies may not recognize the potential impacts of a security breach. Another possible explanation is the composition of the sample itself. Because only agencies already using social media were invited to participate in the survey, organizations that chose not to use social media because of security concerns were not represented. Additional research could explore this issue further to determine whether social media leave transit agencies particularly vulnerable to cyber threats and, if so, to identify recommended actions.

Access for People with Disabilities

Social media platforms lag behind the Internet in accessibility for people with disabilities. One study found that 62% of individuals who use assistive screen readers considered social media "somewhat accessible" overall. Although federal agencies are required to conform to Section 508 accessibility guidelines for their web applications, some analysts argue that those rules do not apply to government use of social media sites, because the sites are privately owned and operated. Additional research could help organizations identify features to improve the accessibility of social media sites and

contribute to the debate about how federal accessibility rules apply to social media.

Multicultural Considerations

The demographics of social media users are not yet well documented and questions remain about whether social media platforms can bridge the digital divide. Although not conclusive, the study suggests that social media attract users from multiple demographic categories. For example, although the vast majority of adults aged 18–29 were social networkers (86%), so were nearly half of those aged 50–64 (47%) and a quarter of those 65 and over (26%). Research has shown that African–Americans and Hispanics participate in the social web, frequently through mobile devices, but limited information is available about other minority groups including Asian–Americans. Further research could provide more insight into the demographics of social media users and help determine whether public transportation agencies need to take additional actions to ensure that all riders can access online information and social networking sites.

Integration with Other Agency Activities

Almost all agencies responding to the survey coordinated social media with their marketing and communications plans. About three of four reported that they coordinated their social media efforts with service advisories and just under half with real-time service alerts. Despite the growth in mobile applications and traveler and citizen informa-

tion services, only a few agencies reported integrating social media with these additional activities. Additional research could help identify the potential for better coordinating social media activities with other platforms for providing agency information.

Potential Revenues

Industry experts anticipate growth in several areas, including location-based technology and social-buying services. Only about half of the surveyed agencies reported considering the revenue potential of social media, and information about the potential of these applications to generate revenue for transit providers is extremely limited. A few government agencies researched the potential of accepting advertisements on their website with inconclusive results, and one bicycle-sharing service used a group coupon service to sell new memberships in its program. Additional research could help identify the potential revenue opportunities associated with these applications.

GLOSSARY OF TERMS

Application—An application, or "app," is computer software that performs a specific function on a computer, mobile phone, or hand-held device.

Application programming interface—An application programming interface or API is a set of rules and specifications that allow software programs to communicate with each other.

Blog—Derived from the term "web log," a blog is an online journal that is updated on a regular basis. Blogs can be about any subject and usually contain comments from readers and links to other websites.

Digital divide—The digital divide refers to the gap between people who have access to information technology and those who do not.

Facebook—Facebook is a social networking site that invites its users to create a personal profile, add other users as "friends," and exchange messages. Businesses, organizations, and government agencies can set up profiles and provide updates for followers and constituents.

Flickr—Flickr is a website that allows users to publish and share photographs.

Foursquare—Foursquare is a location-based mobile platform that enables users to "check in" to locations by means of smartphone application or text message. Users also can share their location with friends while collecting points and virtual badges.

GovLoop—GovLoop is a social network for government employees. Members are invited to create a profile, add other users as friends, and participate in online discussions.

Groupon—Groupon is a social-buying company that sells discounted coupons for goods and services to members, who are encouraged to share them with friends.

Klout—Klout is an application that provides a composite score to represent a user's social media influence, based on metrics compiled for Twitter, Facebook, and LinkedIn.

LivingSocial—LivingSocial is a social-buying company that sells discounted coupons for goods and services to members, who are encouraged to share them with friends.

Mashup—A mashup combines information or features from two or more sources to create a new resource or service. Google Transit is a popular mashup that displays information about transit routes on a Google base map.

Metadata—Metadata is a term for information about a media item, such as a blog post or a photograph, and may include titles, descriptions, tags or keywords, and captions.

Microblog—A microblog is a web service where users exchange small elements of content. Twitter, which is the best known microblogging service, limits posts and entries to 140 characters (including spaces).

MySpace—MySpace is an online social network that was initially targeted to teenagers but now focuses on artists and bands. As with Facebook, MySpace allows its users to create a profile, add other users as friends, and exchange messages.

Platform—A platform is a framework or content management system that runs software and presents online content.

Podcast—A podcast is an audio digital file available for download to a personal computer or portable device for playback.

Retweet—Retweet (often abbreviated as "RT") can refer to a forwarded post on Twitter, when used as a noun, or the process of forwarding another post on Twitter, when used as a verb.

RSS—RSS, or Really Simple Syndication, is a format for delivering web-based content directly to users. Most persons use an RSS reader or news aggregator to subscribe to web feeds or updates.

SharePoint—SharePoint is a proprietary software product designed to allow individuals in an organization to share information, manage documents, and publish reports.

SMS—SMS, or Short Message Service, is a system for exchanging short text-based messages between mobile devices.

Social media—Social media refers to online technology that allows people to publish and share content, including text, audio, video, or multimedia.

Social network—A social network is an online community that allows users to create a profile, add friends, communicate with other members, and share content. Examples include Facebook, LinkedIn, and MySpace.

Spam—Spam is the use of electronic messaging systems to send unsolicited bulk messages, usually by e-mail. Spam also refers to the e-mail messages.

Spambot—A spambot is an automated program designed to collect e-mail addresses from websites to build mailing lists for sending spam. Some spambots post links to online blogs, forums, wikis, and other online forms to increase web traffic and to improve search engine ranking for the linked page.

Terms of service—Terms of service are the legal conditions for using a website, social networking platform, or other online services.

Tweet—A tweet can refer to a post on Twitter, when used as a noun, or the process of posting content on Twitter, when used as a verb.

Twitter—Twitter is a microblogging network that allows members to post updates of no more than 140 characters.

Web 2.0—Web 2.0 refers to the second generation of the World Wide Web, which enables people with no specialized technical knowledge to create, upload, and share content. Examples include Facebook, YouTube, Flickr, and Wikipedia.

Web analytics—Web analytics is the process of analyzing the behavior of visitors to a website.

Widget—A widget is a small block of dynamic content displayed on a website. Widgets typically display specific information, such as news headlines, and update themselves by means of an RSS feed.

Wiki—A wiki is a collaborative website that allows members of a defined community to create, edit, and delete content using a web browser.

YouTube—YouTube is a video hosting site where users can upload and watch short videos.

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APPENDIX A
SURVEY PARTICIPANTS

Transit Agency	Region	State/Province
Edmonton Transit	Edmonton	AB
TransLink	Vancouver	BC
Los Angeles County Metropolitan Transportation Authority	Los Angeles	CA
Metrolink	Los Angeles	CA
Bay Area Rapid Transit	Oakland	CA
Washington Metropolitan Area Transit Authority	Washington	DC
Pinellas Suncoast Transit Authority	St. Petersburg	FL
Hillsborough Area Regional Transit	Tampa	FL
Metropolitan Atlanta Rapid Transit Authority	Atlanta	GA
Des Moines Area Regional Transit Authority	Des Moines	IA
Johnson County Transit	Olathe	KS
Winnipeg Transit System	Winnipeg	MB
The Rapid	Grand Rapids	MI
Capital Area Transportation Authority	Lansing	MI
St. Louis Metro Transit	St. Louis	MO
Chapel Hill Transit	Chapel Hill	NC
Triangle Transit	Durham	NC
Manchester Transit Authority	Manchester	NH
NJ TRANSIT	Newark	NJ
Metropolitan Transportation Authority	New York	NY
Capital District Transportation Authority	Albany	NY
Greater Cleveland RTA	Cleveland	OH
Toronto Transit Commission	Toronto	ON
TriMet	Portland	OR
Lehigh and Northampton Transportation Authority	Allentown	PA
Centre Area Transportation Authority	State College	PA
Port Authority of Allegheny County	Pittsburgh	PA
Société de transport de Montréal	Montréal	QC
Dallas Area Rapid Transit	Dallas	TX
Potomac and Rappahannock Transportation Commission	Woodbridge	VA
Sound Transit	Seattle	WA
Kitsap Transit	Bremerton	WA
King County Metro Transit	Seattle	WA
Community Transit	Everett	WA
Mountain Line Transit Authority	Morgantown	WV

APPENDIX B
SURVEY

AGENCY OVERVIEW

1.   **Contact information**

    First Name: _____

    Last Name: _____

    Title: _____

    Agency Name: _____

    Street Address: _____

    Apt./Suite/Office: _____

    City: _____

    State/Province: _____

    Postal Code: _____

    Country: _____

    Phone Number: _____

    E-mail Address: _____

    Fax Number: _____

    Mobile Phone: _____

    Website: _____

2.   **Describe your agency's service area.**

    ( ) Large urbanized area (population over 200,000)

    ( ) Small urbanized area (population 50,000–200,000)

    ( ) Rural or non-urbanized area (population under 50,000)

3. **Which modes does your agency either directly operate or operate using a contractor? Check all that apply.**

[ ] Bus/trolleybus

[ ] Heavy rail/subway

[ ] Bus rapid transit

[ ] Light rail/streetcar

[ ] Commuter rail

[ ] Demand response

[ ] Vanpool

[ ] Ferry

[ ] Other:

4. **What was your agency's total ridership for the most recent year? Indicate annual unlinked trips and specify the year.**

	Annual unlinked trips	Year	
		2010	2009
Agency ridership	___	( )	( )

SOCIAL MEDIA APPLICATIONS

5. **What social media applications does your agency use? Check all that apply.**

[ ] Agency blog

[ ] Facebook

[ ] Twitter

[ ] YouTube

[ ] MySpace

[ ] Flickr

[ ] LinkedIn

[ ] Foursquare

[ ] GoWalla

[ ] SecondLife

[ ] Other (specify):

6. **Indicate the type of information your agency provides and the social media application(s) used. Check all that apply.**

	Blog	Facebook	Twitter	YouTube	LinkedIn	N/A
Service info (static)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Service alerts (real-time)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Meeting and event notices	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Agency news	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Other news	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Job listings	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Press releases and statements	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Contests and promotions	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Feature stories	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Public hearing comments	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Other (specify below)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

List other types of content and identify the application(s) used.

_____

7. **How often does your agency update the following?**

	More than once a day	Once a day	A few times a week	Once a week	A few times a month	Once a month or less	N/A
Service info (static)	( )	( )	( )	( )	( )	( )	( )
Service alerts (real-time)	( )	( )	( )	( )	( )	( )	( )
Meeting and event notices	( )	( )	( )	( )	( )	( )	( )
Agency news	( )	( )	( )	( )	( )	( )	( )
Other news	( )	( )	( )	( )	( )	( )	( )
Job listings	( )	( )	( )	( )	( )	( )	( )
Press releases and statements	( )	( )	( )	( )	( )	( )	( )
Contests and promotions	( )	( )	( )	( )	( )	( )	( )
Feature stories	( )	( )	( )	( )	( )	( )	( )
Public hearing comments	( )	( )	( )	( )	( )	( )	( )
Other (specify below)	( )	( )	( )	( )	( )	( )	( )

List other types of content and indicate frequency for updates.

_____

8. **Who is responsible for generating content? Check all that apply.**

[ ] Senior management

[ ] Marketing/communications staff

[ ] Information technology staff

[ ] Administrative staff

[ ] Planning staff

[ ] Operations/maintenance staff

[ ] Customer service staff

[ ] Intern

[ ] Volunteer

[ ] Consultant

[ ] Automated

[ ] Other (specify):

AGENCY CONSIDERATIONS

9. **Following are some commonly identified goals for using social media. Indicate how important each goal was to your agency's decision to use social media.**

	Not important at all	Slightly important	Important	Very important	Not Applicable
Communicate with current riders	( )	( )	( )	( )	( )
Distribute general information (static)	( )	( )	( )	( )	( )
Distribute real-time service information	( )	( )	( )	( )	( )
Improve customer satisfaction	( )	( )	( )	( )	( )
Improve agency image	( )	( )	( )	( )	( )
Strengthen community support	( )	( )	( )	( )	( )
Recruit and keep staff	( )	( )	( )	( )	( )
Increase ridership	( )	( )	( )	( )	( )
Obtain feedback on projects	( )	( )	( )	( )	( )
Reach potential riders	( )	( )	( )	( )	( )
Save money	( )	( )	( )	( )	( )
Other (specify below)	( )	( )	( )	( )	( )

Describe other agency goals for using social media and indicate their importance.

_____

10. **Indicate how effective your agency's social media activities were in achieving each of the following goals.**

	Not effective at all	Slightly effective	Effective	Very effective	Not Applicable
Communicate with riders	( )	( )	( )	( )	( )
Distribute general information (static)	( )	( )	( )	( )	( )
Distribute real-time service information	( )	( )	( )	( )	( )
Improve customer satisfaction	( )	( )	( )	( )	( )
Improve agency image	( )	( )	( )	( )	( )
Strengthen community support	( )	( )	( )	( )	( )
Recruit and keep staff	( )	( )	( )	( )	( )
Increase ridership	( )	( )	( )	( )	( )
Obtain feedback on projects	( )	( )	( )	( )	( )
Reach potential riders	( )	( )	( )	( )	( )
Save money	( )	( )	( )	( )	( )
Other (specify below)	( )	( )	( )	( )	( )

Describe the effectiveness of social media in achieving other agency goals.

_____

11. **How does your agency evaluate the effectiveness of its social media activities? Check all that apply.**

[ ] Track application statistics (e.g., followers, subscribers, fans)

[ ] Use third-party statistics (e.g., Google Analytics)

[ ] Conduct surveys

[ ] Informal feedback

[ ] No evaluation

[ ] Don't know

[ ] Other (specify):

13. **Which social media applications does your agency use to reach the following groups? Check all that apply.**

	Blog	Facebook	Twitter	YouTube	LinkedIn	N/A
Everyday riders	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Students	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Young adults	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Seniors/older Americans	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
People with disabilities	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Low-income communities	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Minorities	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Tribal communities	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Agency employees	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
External stakeholders	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

14. **How effective are your agency's social media activities in reaching the following groups?**

	Rate effectiveness					Describe your experience
	Not effective at all	**Slightly effective**	**Effective**	**Very effective**	**Not applicable**	
Everyday riders	___	___	___	___	___	___
Students	___	___	___	___	___	___
Young adults	___	___	___	___	___	___
Seniors/older Americans	___	___	___	___	___	___
People with disabilities	___	___	___	___	___	___
Low-income communities	___	___	___	___	___	___
Minorities	___	___	___	___	___	___
Tribal communities	___	___	___	___	___	___
Agency employees	___	___	___	___	___	___
External stakeholders	___	___	___	___	___	___

15. **Are your agency's social media activities integrated with other agency activities and/or information distribution platforms, like real-time alerts or service advisories? Check all that apply.**

[ ] Marketing and communications plan

[ ] 511 (traveler information)

[ ] 311 (citizen information)

[ ] 211 (human services information)

[ ] Real-time arrival alerts

[ ] Service advisories

[ ] Other (specify):

16. **Does your agency have a social media policy?**

( ) Yes

( ) No

( ) In development

( ) Don't know

17. **If possible, please upload a copy of your agency's social media policy.**

CHALLENGES AND BARRIERS TO IMPLEMENTATION

18.   Following are some commonly identified barriers to using social media. Indicate how
         important each factor was in your agency's decision to use social media.

	Not important at all	Slightly important	Important	Very important	Not Applicable
Social media apps require support from IT staff	( )	( )	( )	( )	( )
Posting updates takes too much time	( )	( )	( )	( )	( )
Traditional communications methods are the best way to reach our riders	( )	( )	( )	( )	( )
Social media exposes our agency to computer viruses	( )	( )	( )	( )	( )
Agency managers did not see the benefits of social media	( )	( )	( )	( )	( )
People with disabilities cannot access social media	( )	( )	( )	( )	( )
Our riders do not have access to technology	( )	( )	( )	( )	( )
Seniors do not use social media	( )	( )	( )	( )	( )
People will use social media to criticize my agency	( )	( )	( )	( )	( )
Staff will waste time updating their personal pages	( )	( )	( )	( )	( )
Using social media creates concerns about user privacy	( )	( )	( )	( )	( )
There's no good way to archive social media posts	( )	( )	( )	( )	( )
Social media is not a good way to reach minorities	( )	( )	( )	( )	( )
No staff available to manage social media activities	( )	( )	( )	( )	( )

19.   Identify any other barriers your agency identified when considering use of social media.

         _____

20.   Are your agency's social media sites accessible to people with disabilities?

         ( ) Yes, completely accessible

         ( ) Partially accessible

         ( ) No, not accessible

         ( ) Don't know

21.   What accessibility features does your agency use? Check all that apply.

         [ ] Provide captions and text descriptions for photos and images

         [ ] Provide captions for videos

         [ ] Use audio CAPTCHA feature

         [ ] Use accessible Twitter

         [ ] None

         [ ] Other:

22. **Has your agency encountered cyber-security issues because of its use of social media?**

( ) Yes

( ) No

( ) Don't know

23. **If yes, what issues did your agency encounter and what actions did your agency take to address them?**

_____

24. **Is your agency required to archive social media posts and communications?**

( ) Yes

( ) No

( ) Don't know

25. **If yes, describe how your agency archives messages. Indicate technology used (if any), how long messages are saved, and relevant legal or regulatory references.**

_____

26. **How has your agency addressed other barriers to using social media identified in this section? These may include concerns about negative publicity, allowing employee access to social media sites, and addressing a digital divide.**

_____

27. **While social media applications are usually free of charge, setting up and maintaining them can incur costs to agencies. If known, estimate the number of labor hours that individuals in the following categories spend on social media activities each month.**

_____Senior management

_____Marketing and communications

_____Information technology

_____Administration

_____Planning

_____Operations/Maintenance

_____Customer service

_____Legal/Procurement

_____Human resources/Training

_____Intern

_____Consultant

_____Other (specify):

28.   **If known, estimate costs in dollars to create and to support your agency's social media applications.**

	Initial Costs (start-up)		On-going costs (annual)	
		N/A		N/A
Software	___	[ ]	___	[ ]
Staff	___	[ ]	___	[ ]
Training	___	[ ]	___	[ ]
Licenses	___	[ ]	___	[ ]
Hardware	___	[ ]	___	[ ]
Consulting	___	[ ]	___	[ ]
Other	___	[ ]	___	[ ]

29.   **Has your agency considered any potential revenue streams from social media applications? Check all that apply.**

[ ] Advertisements

[ ] Location-based advertisements

[ ] Partnerships with outside organizations

[ ] Other (specify):

[ ] None

[ ] Don't know

LOOKING AHEAD

30.   **Please describe any lessons learned that would benefit other transit agencies using social media.**

_____

31.   **What developments in social media do you or your agency anticipate over the next few years?**

_____

THANK YOU!

Thank you for completing this survey and contributing to this important research.

Abbreviations used without definitions in TRB publications:

AAAE	American Association of Airport Executives
AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
ACI–NA	Airports Council International–North America
ACRP	Airport Cooperative Research Program
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATA	American Trucking Associations
CTAA	Community Transportation Association of America
CTBSSP	Commercial Truck and Bus Safety Synthesis Program
DHS	Department of Homeland Security
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
HMCRP	Hazardous Materials Cooperative Research Program
IEEE	Institute of Electrical and Electronics Engineers
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
NASA	National Aeronautics and Space Administration
NASAO	National Association of State Aviation Officials
NCFRP	National Cooperative Freight Research Program
NCHRP	National Cooperative Highway Research Program
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
PHMSA	Pipeline and Hazardous Materials Safety Administration
RITA	Research and Innovative Technology Administration
SAE	Society of Automotive Engineers
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
TCRP	Transit Cooperative Research Program
TEA-21	Transportation Equity Act for the 21st Century (1998)
TRB	Transportation Research Board
TSA	Transportation Security Administration
U.S.DOT	United States Department of Transportation

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