AAAE ACCREDITATION PROGRAM
MANAGEMENT PAPER

USES OF SOCIAL MEDIA BY U.S. AIRPORTS

Kenneth G. Moen
Executive Candidate
169300

PRESENTED IN FULFILLMENT OF THE
WRITING REQUIREMENT
of the
AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES
02/15

AAAE ACCREDITATION PROGRAM

MANAGEMENT PAPER

USES OF SOCIAL MEDIA BY U.S. AIRPORTS

PRESENTED IN FULLFILLMENT OF THE
WRITING REQUIREMENT
of the
AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES

CONTENTS

INTRODUCTION **5**

REVIEW OF SOCIAL MEDIA LITERATURE **6**

Social Media Overview 9

Social Media Dynamics 10

2013 Social Media Study of 90 Busiest U.S. Airports 12

THE U.S. AIRPORT SOCIAL MEDIA RESEARCH PROJECT

Social Media Customer Engagement 12

2013 Social Media Survey Methodology 14

2013 Social Media Survey Findings 15

2013 Social Media Survey Findings Analyzed 18

AIRPORT OPERATOR CASE STUDIES **20**

Case Study # 1 - LAX Active Shooter 20

Case Study # 2 - Asiana Flight 214 24

Case Study # 3 - PIT Winter Storm Thanksgiving 2013 27

Case Study # 4 - Jacksonville Airport Bomb Threat 29

Case Study # 5 - CAK, Social Media Pioneer 33

Case Study # 6 - RNO 2014 Triennial Disaster Exercise and Use of Social Media 37

CONCLSUION/SUMMARY **41**

ILLUSTRATION - THE CONVERSATION PRISIM **44**

TABLES

A-1 2013 SOCIAL MEDIA STUDY OF 90 BUSIEST U.S. AIRPORTS 45

A-2 2013 SOCIAL MEDIA SURVEY KEY RESULTS 47

A-3 2013 SOCIAL MEDIA SURVEY AND AIRPORT RESPONSES 49

APPENDIX A - 2013 SOCIAL MEDIA SURVEY PARTICIPANTS 50

APPENDIX B - 2013 SOCIAL MEDIA SURVEY QUESTIONAIRE 51

APPENDIX C - DESCRIPTION OF COMMON SOCIAL MEDIA PLATFORMS 52

ENDNOTES 54

BIBLOGRAPHY 60

Introduction

Social media is defined as, "a group of web-based applications that encourage users to interact with one another."[1] The phenomenon that is social media is a result of technological advancements in hardware and software that led to the development of a variety of Internet platforms, including: LinkedIn, Facebook, Twitter, YouTube, Yelp, Foursquare, Pinterest, blogs and scores of others.[2] Social media is still in its infancy; the technology has only become widely available in the last decade. The advancement of wireless (mobile) networks and mobile platforms (smartphones, tablets) has increased the use of social media platforms.[3]

The primary benefit for airport operators is this new communications tool has the ability to transmit information to the masses, which in turn the masses also have the ability to communicate with one another instantly, faster than any mode of communication ever available. Users can shape the message and get ahead of businesses and act faster than management can react to events occurring in real time. Travelers can post about poor customer service or comment about events like weather-related incidents, aircraft accidents, or even a traveler's perception of being mistreated. Shaping the message and responding to traveler needs via social media provides airport operators with a tool to respond to travelers in real time, when demand for customer service is the highest.[4]

The advancement of social media platforms has proven to be revolutionary in the way people communicate with one another or even how groups of people communicate. The speed of this form of communication is near instantaneous and has had a dramatic impact on events unfolding in real time. Mankind's evolution of communication has taken on many forms, from the sounds of drums and trumpets, to smoke signals and semaphore; from messenger to Morse code tapped out over a telegraph, from voice over wire (telephone) to voice over wireless (cell phone); from

U.S. Mail to email from phone call to text message; from billboard to Tweet and Facebook post. What would have taken weeks with the Pony Express, evolved to days with the advent of airmail, and now takes seconds via email and you save the cost of the stamp. Advancement in communication has rapidly stripped legacy technologies of their importance and usefulness. Websites, cell phones, Facebook pages and Twitter feeds have rendered phone trees, voicemail, answering machines and pre-recorded messages nearly obsolete. Travelers announce their arrival at the airport in cyberspace (to whoever is listening) by "checking-in" on Foursquare or posting their status on Facebook. Customers give reviews of restaurants on Yelp and post videos of bad customer service on YouTube. Rates of change in technological advancement and which social media platform is the "in" platform creates confusion among businesses attempting to capitalize on the use of social media to reach customers.[5]

Review of Social Media Literature

Social media has morphed from an avenue that primarily allows users to create and share user-generated content to a business marketing channel. The available literature about social media tends to focus on the business marketing aspects of social media. Social media has become a tool for businesses to interact with customers and allows businesses to mix advertising, promotion and public relations.[6] The primary difference between this new marketing tool and the traditional mix of advertising formats is the interaction with customers. This interaction also allows customers to communicate with the business as well as one another.[7] Social media has given users an instant outlet to voice frustration (or praise) across cyberspace. Instead of asking for a manager, customers can now complain – instantly via Twitter or Facebook, etc. This outlet often has managers trailing in the wake of a problem, instead of having an opportunity to get ahead of it.

Airport operators' use of social media has leaned toward customer service, with some marketing mixed in and is just scratching the surface of crisis communication. The Transportation Research Board (TRB) and the Transit Cooperative Research Program (TCRP) commissioned a study in 2012, on the "Uses of Social Media in Public Transportation." This study did not focus solely on airports, but on 39 selected transportation providers in the U.S. and Canada known to use one or more social media platforms, and was conducted over a cross section of metropolitan, small urban and rural areas. The study found that social media provided agencies with an unparalleled opportunity to connect with their customers. Agencies have begun to adapt these networking tools for purposes that were placed into five broad categories: timely updates, public information, traveler engagement, employee recognition and entertainment. Agencies identified many advantages to using social media. Respondents reported several barriers and areas of concern, including; resource requirements, managing employee access, responding to online criticism, accessibility, security, user privacy, and the changing social media landscape.[8]

Responding agencies offered lessons learned through their experience with using social media, including: organizational impacts, identifying the real costs of staff requirements, identifying a social media voice and strategy, as well as the importance of using social media to help break down barriers between customers and agencies.[9]

The study revealed several gaps in knowledge that require additional research. These gaps include: defining agency policies and parameters for use of social media; identifying social media metrics in order to understand the effectiveness of agency social media activities; multicultural issues and access for people with disabilities; Internet security, including network

vulnerabilities; cyber-threats; and the potential for increasing additional revenue through social buying services.[10]

In 2014, the TRB and the Airport Cooperative Research Program (ACRP) commissioned a study, "Understanding the Value of Social Media at Airports for Customer Engagement." The findings were culled from interviews with 14 airports and three non-aviation businesses known for market leadership in the use of social media. The research showed that travelers expected businesses (airports) to be using social media. Social media platforms provide airport operators with an avenue to directly engage with travelers and provide real-time customer service, as well as improve the traveler's overall travel experience. Social media platforms also provided airport operators with the opportunity to enhance their brand identity as defined by their overall marketing program and connect it to the airport's business strategy. A well-designed social media program can facilitate the management of the airport by re-directing resources to areas with the greatest needs and aid in identifying revenue enhancement opportunities. The report's objectives were to, "synthesize the current literature and best practices on how airport operators understand the value of social media for customer engagement."[11]

In 2008, airport operators reported that the top three marketing tools for an airport were the airport website, newspaper articles and press releases.[12] Since then airport operators have incorporated social media as another avenue to reach out to the local community and highlight the important role of the airport not only as a transportation gateway, but also catalyst for economic development.[13]

The key findings of the ACRP research project were: 1) the importance of developing social media strategies and 2) establishing guidelines and policies in order to facilitate agreements for strategic partnerships with airlines and concessionaires to increase the overall effectiveness of

social media and grow revenue. The biggest challenge identified with social media is the allocation of staff time available to carry out social media programs. The report suggested that additional research needs to be done to determine the real cost of social media programs, to develop crisis management strategies and policies, and to identify technological changes that allow for the consolidation of data from a variety of social media platforms.[14]

Social Media Overview

A social media platform is an Internet website requiring a new user to register and complete a user profile. The completion of this process opens an access point from which the user can now interact freely with other platform users. Users typically share personal information, likes and dislikes, and discuss whatever moves them that day. Users post information through a multimedia mix of text, images, videos and even audio. These social media platforms allow individuals and groups of people to create and exchange content and engage in person-to-person interchanges. Social media platforms appear in many forms, including blogs and microblogs, forums, message boards, social networks, wikis, virtual worlds, social bookmarking, news and commentary, writing communities, podcast portals, digital storytelling, scrapbooking, various forms of data sharing, photographic images, and video and music sharing, creating a kind of collective intelligence.[15]

Many countries around the globe are now heavily engaged with social media, including the United States, Canada, the United Kingdom, Russia, the Netherlands, Norway, Finland, Denmark, Sweden, Turkey, Israel, the Philippines, India, China, Japan, Australia, South Korea, Brazil, Mexico, Argentina, Chile, Colombia, Peru, Venezuela and several countries in the Middle East and Africa. About 25% of the world's total population use social media, while three-quarters of the online population use one or more social media networking sites. North America has the

highest percentage of active Internet users at approximately 300 million from a population base of 550 million people. Although Asia has the largest population base of around 4 billion people, the Internet penetration rate is 39% of the population, or 1.2 billion users. China's Internet population reached 632 million in 2013. For the first time in 2013, more new Internet users ventured online with a mobile device (smartphone or tablet) than with a PC.[16]

Social Media Dynamics

In 2014, Facebook celebrated its 10th anniversary--ancient in terms of the social media landscape. Already, teens are tiring of it and moving on to Twitter, Instagram, Snapchat and others.[17] Large retailers drive interest in their Facebook pages and Twitter feeds using their traditional advertising mix of television, radio and print advertising. Social media is widely used for customer service and millions of people have "liked" a brand on Facebook.[18] The "Like Button", (a "thumbs-up" symbol) allows a user to show their approval for a post, an image, or a response to an individual, group, or business Facebook page. The "Like Button" also displays a running total of users that "liked" a particular piece of content, and may even display a full or partial list of those Facebook users who "liked" the content.[19]

Between 2003-2013 Facebook (2003) and Twitter (2006) grew by hundreds of millions of new registered users, overtaking social media leader MySpace in new user growth. Facebook was the game-changer in social media, surpassing 1 billion registered users worldwide by October 2012.[20] The explosion in the number of registered users on social media platforms has led to a metamorphosis of the World Wide Web. Social media has challenged the fundamental principles of Tim Berners-Lee 1989 thesis for the Internet: instead of an Internet designed to serve as a repository and a method of sharing and linking documents together by researchers across a "web-like" network,[21] social media has turned the Internet into a world-wide

communication network utilized by the masses. Billions of people are connected by an invisible network, allowing users to post messages, pictures, and video promptly. The Internet has enabled new market entrants to compete with entrenched businesses, allowing small groups of people to disrupt whole international industries. Desktop publishing and online shopping are perfect examples of areas in which disruptive technologies have changed the way news, products and services are delivered. These new technologies have largely been responsible for upsetting the status quo of commercial printing plants as well as brick and mortar retail stores. In 2014, the online retailer Amazon sold 40% of all books purchased in the U.S. and 63% of all books purchased online.[22] The Internet has given voice to billions of people, allowing them to organize, share messages, communicate information and even post video of news-making events. Previously, breaking a news story required a news reporter, a camera man and a satellite link. Today, anyone can break a story with a smartphone, and an Internet connection. Within minutes that story can spread around the world like a virus.[23]

In the chaos of this fast-paced, hyper-connected, information-driven society, the question arises: is anyone listening? Are these online exchanges just a noisy few crying out for attention? Or do these bloviating individuals have anything of value to say? In 1995, there were 19,732 webpages, by 2009 that number grew to 215.7 million and in 2012 the number of webpages soared to over 1 billion. In 1995, the percentage of the U.S. Population connected to the internet was 14%, by 2009 that number grew to 74%, and in 2012 the percentage of the U.S. Population connected to the Internet rose to 85%. In 2013, 128 million Americans had a Facebook page (41% of the population). 53 million Facebook users are between the ages of 25 and 44 (labeled the Gen X demographic), the largest tech savvy demographic.[24] More people are speaking up and potentially listening, more often than at any time in history.

2013 Social Media Study of 90 Busiest U.S. Airports

In 2013, a study was undertaken to examine the Internet activities of the top 90 busiest U.S. airports (as determined by passenger enplanements and reported in the FAA's Air Carrier Activity Information System [ACAIS] for calendar year 2012).[25] The study examined airport websites in order to determine what social media platforms were in use by airport operators and what levels of engagement airport operators were experiencing. The study revealed the two most common social media platforms were Facebook and Twitter, respectively. The study utilized the metric of passenger enplanements to Facebook "likes" and Twitter "followers" in order to gauge the penetration rate of the social media platforms. Of the 78 airports with a Facebook page, the ratio between total enplanements (592 million in 2012)[26] and Facebook "likes" was less than one-third of one percent. Only seven of the top 90 busiest U.S. airports achieved a ratio one-half of one percent of enplaned passengers to Facebook "likes". The results for Twitter "followers" to enplaned passengers was even lower. Only four airports achieved a scant one-quarter of one percent ratio of enplaned passengers to Twitter "followers". (Only 11% of American adults who use the Internet have a Twitter account and follow someone on Twitter.)[27] Less than one-third of one percent of domestic enplaned passengers "liked" any of the 78 busiest U.S. airports with a Facebook page. The numbers for the other social media platforms like Pinterest, YouTube, Digg, Instagram, Flickr, Google+ are even lower.[28]

Social Media Customer Engagement

The approach used most frequently by airport operators to generate Facebook "likes" and Twitter "followers" is based on a strategic approach focused on engaging an audience and often involves a quid pro quo, such as a contest to cajole airport passengers to "like" the airport on Facebook in order to be eligible for some type of giveaway. The process to build followers may

even start with soliciting family members and friends to log-in to their Facebook accounts and "like" the airport in an effort to facilitate the airport's Facebook presence. One of the key features of Facebook is the news feed. The news feed is a running commentary of information posted by Facebook users and their Facebook friends. That information displayed in a news feed is determined by a Facebook algorithm. In an effort to determine what ends up in a news feed, the algorithm ranks information by the frequency a user interacts with information posted by Facebook friends, i.e. the number of "likes" or interactions to a post by a particular friend. Facebook continues to modify their news feed algorithm in order to fine tune what information users see. One of the recent modifications is intended to change how posts from non-advertising businesses are viewed on the news feeds of Facebook friends. The goal of Facebook is to convert non-advertising businesses to paid advertising businesses.[29]

Unlike Facebook, Twitter doesn't manipulate information posted to influence what users view. Twitter users generate an audience through self-selection of other Twitter users. Self-selecting users are known as "followers" in Twitter parlance. Twitter users with the most followers are generally celebrities of some renown. Celebrities on Twitter can have an audience that ranges in the millions. If an airport operator is to grow and maintain its follower-base on Twitter, the airport operator must tweet compelling information. One of the challenges of airport operators in building a significant following is that 77% of all Twitter accounts are outside of the U.S.[30] In 2012, the airport operator with the largest Twitter audience was Los Angeles International Airport (LAX) with 27,000 Twitter followers. LAX had over 31 million passenger enplanements in 2012, a ratio of less than one-tenth of one percent of twitter followers to enplaned passengers.[31]

After reviewing the survey data, several questions came to mind. Primarily, for what purpose does an airport use social media? Is the purpose to engage travelers? Provide answers to travelers' questions? Provide traveler assistance? Inform travelers of airport related issues? Is "pushing" airport information through social media regarding airport conditions, delay reporting, construction alerts and other travel-related information going to reach those traveling today? Or is "pushing" information via other means more effective in reaching the traveler? Is the responsibility to inform the traveling public, the job of the airline or the airport? Whose customer is the enplaned passenger anyway: the airline who sold the passenger the ticket or the airport operator that provides the infrastructure that allows the airline to operate? In order to understand these questions, I developed a survey for senior-level airport managers at the same 90 busiest U.S. airports as used in the study conducted in 2013. The objective of the social media survey was to understand what social media strategies were used by different airport operators and to understand how different airport operators utilized social media platforms in their day-to-day operations as well as in emergency situations.

2013 Airport Social Media Survey Methodology

I developed a questionnaire titled, "The Uses of Social Media at U.S. Airports" and emailed it to senior-level managers in airport marketing/public relations departments. Of the 90 surveys sent to airport operators 66 were returned, a response rate of 73%. The survey was designed to obtain responses from airport operators written in a paragraph format. The questions were designed with a focus on the type of social media platforms utilized by the airport operators and more importantly, the objectives and goals for their use of social media in the performance of their jobs. How did social media fit into the overall media mix used to promote and market the airport? How did the airport operator communicate and interact with travelers?

Once all of the questionnaires were returned, I used "Content Analysis", an established research tool, to determine the presence of particular terms or concepts.[32] In order to determine the presence of certain terms or concepts, the questionnaire responses were coded in order to separate responses into categories. The categories were based on a foundation of words, phrases, themes, and sentences. Once that process was complete, an examination of the results by "Conceptual and Relational Analysis" was undertaken.[33] For example, in order to determine the most frequently used social media platforms by airport operators, a count of each occurrence of the name of each social media platform was performed.

The combination of Twitter and Facebook was determined to be the most prevalent social media platforms in use based upon the frequency those platforms were mentioned in combination with one another. A determination was made about the relevancy of infrequent responses and rules were established to ensure consistency in order to improve the confidence of questionnaire results. Identification and frequency of other social media platforms were noted to ensure they were accounted for in the research project.

2013 Social Media Survey Findings

Facebook was reported as the primary social media platform on only 4% of surveys submitted by responding airport operators. Twitter was listed as the primary social media platform on 14% of responding airport operators. Individually, YouTube was ranked higher than both Facebook and Twitter; YouTube was mentioned in 20% of airport surveys. Six percent of responding airport operators did not utilize any social media platforms as part of their marketing and communication plan.

The task of managing the social media platforms for the airport operators fell to the marketing/public relations (PR) department at 83% of responding airports. Airport operations

had the responsibility at 11% of the responding airports, while the airport communications center (Aircom) assumed the task of managing the social media platforms at 4% of responding airports. When asked if the airport operated under a formal social media policy; 74% of the respondents said, "No". Not having a social media policy did not equate to not having a plan for the use of social media. Of the responding airport operators, 55% indicated that social media is just a part of the overall marketing and communications plan as executed by the PR department. Twenty-seven percent of responding airport operators stated that social media was a major component of their overall passenger engagement plan and 55% said social media was only a part of their plan, while 12% indicated that social media did not play a role in their airport communications efforts. It is interesting to note that 84% of responding airport operators stated that social media plays a role or a major role in their overall communications plan; yet 56% of respondents stated that there was not a budget line item for social media. Of the airport operators that did have a budget line item for social media, 25% allocated less than 1% of their overall communications budget to support of the use social media platforms. A prevalent comment among respondents was that social media is "free". Unlike purchasing a display ad or buying air time, registering for a Facebook or Twitter account is without charge. However, there is a cost in staff time allocated to monitoring and interacting with travelers on social media. There is also a cost to develop and implement a social media strategy.

A plethora of social media platform monitoring tools exist in the marketplace. HootSuite and TweetDeck are the two most popular social media management tools.[34] Of the responding airports that utilized a social media management tool, 36% stated they used Hootsuite, TweetDeck or both in combination, while 41% did not utilize any software tools to monitor their social media engagements. Among airports that responded, 7% utilized other software

monitoring tools, including: Sprout, Google Analytics, Facebook Metrics, Tweet Reach, and Crowdbooster.

Survey participants were asked the following question: "Is there a concern among your department about the need to monitor social media to ensure you are informed in a timely fashion of a customer complaint or safety issue?" The responses were almost evenly divided; 32% responded "Yes" and 36% said "No". Airport operators stated that social media was only monitored during business hours at 15% of the responding airports.

Seventy-five percent of responding airport operators stated their primary objective in the use of social media was to inform the traveling public of activities that may impact their travel. Airport promotions, promotion of airport concessionaires and airport services were listed as social media objectives on 43% of the surveys. Only 24% of responding airport operators listed two-way communication with the traveling public as an objective in their social media strategy. Regarding customer engagement, 83% of PR managers stated requests for service could not be made via social media. Fifty-one percent of responding airport operators stated that traveler requests for service via social media are referred to an appropriate airport service provider. For example, a traveler request for a jump start, skycap, wheelchair service, directions or questions about lost property would be given appropriate contact information for the particular service provider. However, 38% of responding airport operators stated that service requests could not be met with social media primarily due to the lack of real-time monitoring. Only 7% of responding airport operators stated that service requests could be made via social media platforms, during business hours.

Asked if information was "pushed" out via social media, 65% stated they would "push" only "significant" information. Only 18% of responding airport operators stated that they would not

"push" information via social media and 4% stated that "pushing" information via social media is a stated objective of their social media strategy.

When asked if using social media as a mechanism to drive non-airline revenue was an objective, 68% of airport operators answered that they would use social media to promote airport concessionaires. The present thought is that improved concession sales would increase non-airline revenue through increased, lease mandated, minimum annual guarantees. Only 5% of airport operators stated that promoting airport parking was an objective. On average, income from airport parking accounts for 20-25% of non-airline revenue at major U.S. airports.[35] However, 32% of all survey respondents stated that driving non-airline revenue was not an objective of their social media plans.

Two questions summarize how airport operators think about social media: "How do you measure success against the hard number return on investment (ROI) in terms of time and resources?" Of responding airport operators, 52% do not have an established metric to measure the success of their social media efforts. Of the responding airport operators that did use a metric to measure success of their social media programs, 41% utilized the metric of the number of Facebook "likes" and Twitter "followers" or the number of "re-tweets" of any particular message. Only 3% of airport operators utilized a software measuring tool like Google Analytics to measure success of social media engagements. Based upon the airport operator's professional insight, the final question of the survey was, "is social media worth the cost and the investment in time and money to develop and implement a social media presence and strategy?" An overwhelming 77% of responding airport operators said, "Yes"; 12% said, "No" and 11% of respondents were unsure.

2013 Social Media Survey Results Analyzed

The social media results were analyzed through the lens of two primary questions:

1) Is "pushing" airport information regarding airport conditions, delay reporting, construction alerts and other user-related information going to reach those traveling today?

2) Are marketing dollars spent through traditional media sources more effective in distributing airport related information, or is "pushing" information through social media outlets more effective in reaching the traveler?

The social media survey results suggest that using Facebook or Twitter to communicate with travelers en route to or currently in the airport is inefficient. The number of users of these social media platforms traveling through or at a particular airport at any given point in time is low. However, it is fair to say that there will be social media users on Twitter and Facebook in the airport each and every day. If the airport operator does post or tweet airport conditions, traffic delays or construction alerts the airport operator will reach some travelers, but most likely not the majority of travelers in the airport at any given time.

If the real audience is not the travelers in the airport at any given time, who is the airport operator's audience on social media? The traditional media monitors the Facebook and Twitter sites of an entity like an airport. Traditional media outlets need to maintain a level of situational awareness regarding community events in order to perform their news gathering and reporting functions. Will the media report about airport construction alerts, new retailers, or new air service? They may, depending on the level of importance to their audience. But the media will certainly report on a crisis. Therefore, the real audience for airport operators in crisis communications is not travelers in the airport, but rather traditional media. The media will repeat the news and information broadcast on airport social media platforms and will bring their news gathering and reporting assets to the scene in order to cover events like an airport evacuation,

accident, or a weather incident. Official tweets lag behind the raw, on scene tweets posted by any of the hundreds of smartphones in the area. However, the vetted tweets posted by the airport operator serve as reliable and official information and are retweeted by traditional media outlets. The ratio of customer engagements to passenger enplanements is so small that it cannot be considered a primary method of traveler communication. If airport operators are to harness the true power of social media they must understand who their real audience is. As the source of official information, the airport operator can leverage its message to a wider audience and control the media space by understanding that the traditional media is the true audience for the airport operator's tweets and posts.

Airport Operator Case Studies

There is evidence in the various case studies of airport operators leveraging their status as the official source of information. The primary purpose of the case studies is to focus on different, real-life examples of airport operators using social media. Four of the six case studies examined how airport operators utilized social media during high profile events. A fifth case study examined how the leader in social media, among airport operators, utilized social networking tools to build the largest following among airport operators (by percentage of passenger enplanements). The sixth case study was an academic pursuit between an airport operator and one the country's leading Journalism schools, the Reynold's School of Journalism, who's objective it was to analyze how effectively the airport operator utilized social media during a community-wide disaster exercise.

Case Study #1:

Incident: Active Shooter, LAX Terminal 3

Date/Time: November 1, 2013, 9:18 a.m.

Social Media Platforms: Facebook, Twitter, Google+, Instagram, Flickr

Passenger Enplanements Calendar Year (CY) 2013: 32 million [36]

Social Media Statistics/Details: 290,000 "Likes" on Facebook, Twitter handle, @LAX_Offical and 68,000 "Followers" on Twitter

Social Media Objectives: "LAX uses social media as a resource tool for the traveling public and general public at large to both share news and information of interest as well as answer questions and comments."

On Friday morning on November 1, 2013 at 9:18 a.m., a gunman dressed in a TSA-like uniform, entered LAX Terminal 3. He opened a bag, removed an AR-15 and proceeded to open fire and kill TSA Officer Gerardo I. Hernandez, age 39. The gunman entered the airport sterile area through the exit lane and continued through the concourse shooting and wounding three other victims. The victims included two other TSA officers and one passenger. At 9:25 a.m. Los Angeles airport police officers reported "neutralizing" the suspect near Gate 35.[37] The entire incident took less than 10 minutes from start to finish. The LAX PR department established the Twitter hashtag, #LAXshooting, for the event. LAX sent its first tweet regarding the incident at 9:37 a.m., a full 12 minutes after the suspect was "neutralized".[38] The shooting was over, but the aftermath was just beginning by the time LAX sent its first tweet, "There is an incident underway at LAX. Law enforcement is on scene. (All Twitter posts from Twitter archives, November 1, 2013.)[39]

There were 50 tweets from the @LAX_Official Twitter account. Those 50 tweets would be re-tweeted 8,257 times and LAX engaged with 388 Twitter followers.[40] The audience was potentially very large, perhaps ranging into the millions of Twitter users but, were those tweets

reaching the travelers in LAX Terminal 3? Was there a flow of information to assist travelers in that time of chaos and crisis, when the need for customer service and information was high? LAX's tweets were general in nature and were not directed at passengers in Terminal 3, nor were the tweets directed at travelers in other parts airport or even to those enroute to the airport. Passengers in Terminal 3 were left to their own devices and were not acting on information from the airport operator.

The first press conference organized via Twitter was to take place at 10:51 a.m. according to the Twitter database of the @Lax_Official Twitter feed. Many airport operators state in their airport emergency plan (AEP) that PR is to post an "alert" on the airport website in order to communicate information to the public and the media. In an emergency or crisis, the need for information is so great that the technology often can't keep up with the demand placed on the system, and the website may dramatically slow down or even crash (be taken off-line). The @LAX_Official feed was trailing the information posted by the general public and even the news media on the Twitter hashtag #LAXshooting.

Throughout the event, LAX continued to "push" updated info like, "According to reports ground stop now in effect at LAX after shooting in terminal." Another tweet stated, "All upper/departures level roadways are temporarily blocked by law enforcement." And, "General public are being held back at law enforcement block." And another, "As soon as law enforcement allows, broadcast equipped vans will be allowed to park between terminals 1 and 2 upper/departures level."

What is evident in these tweets is that the intended audience is the media, not the travelers in Terminal 3. The people in the vicinity of the incident may have reacted to those travelers around them. When travelers began to self-evacuate, fleeing the area of violence, those travelers were

not engaged in social media. The concept of using social media as a tool to communicate to affected travelers in the moments surrounding a crisis is not practical. The key to this new level of communication is to be able to communicate directly to the media in a time of crisis. If the theory is that travelers are able to utilize their smartphones in the time of crisis, airport operators must be able to "push" information to all cell phones in the immediate area of the event through a wireless emergency alert system.[41] What may be practical is the use of social media post-incident to communicate customer service messages to the media. Presently, in order to receive messages from an airport official Twitter feed, travelers must be a Twitter account holder, and that requires a self-selection sign-up process. If the traveler is a Twitter user, but not following the airport twitter handle, the traveler must select to follow the airport Twitter handle. In emergency communications, self-selection is not likely. Media outlets self-select in order to follow entities like police, fire, hospitals, and major transportation hubs like an airport well in advance of a major event.

Some media outlets even attempted to engage Twitter users (crowdsourcing) who were tweeting on location at LAX. The attempt by media outlets to get on-scene reports from random Twitter users provided a third-party endorsement, giving credibility to those posting information on Twitter, even if information being posted was inaccurate. This attempt to gather first-hand reports was an effort to gather real information when real information was lacking. Media outlets were not yet on location and the information void was being filled by others. Information was in such high demand that information from any source was repeated, resulting in misinformation. The rumors that were quoted had to be corrected later. Since LAX was not providing the information fast enough to satisfy the demand by the public, others were filling the information void.

Case Study #2:

Incident: Asiana 214 Landed Short Runway 28L at San Francisco International Airport (SFO)

Date/Time: July 6, 2013, 11:28 a.m.

Social Media Platforms: Facebook, Twitter, YouTube, Pinterest.

Passenger Enplanements Calendar Year (CY) 2013: 21.7 million.[42]

Social Media Statistics/Details: 102,000 "Likes" on Facebook, Twitter handle, @flySFO; 24,800 and "followers" on Twitter.

Social Media Objectives: "SFO uses social media as part of our Community Outreach program and as part of our Customer Service commitment; allowing SFO to interact with our customers."

Asiana (HL) 214, a Boeing (B) 777, departed Incheon International Airport (ICN), South Korea, destined to SFO at 5:04 p.m., local time. At 11:21 a.m., Northern California Terminal Radar Approach Control (NORCAL TRACON) cleared HL 214 for a Visual Approach Runway 28L. At 11:27 a.m., SFO Tower cleared HL 214 to land on Runway 28L. At a half-mile final, the flight crew was configuring the aircraft to land. The aircraft was low and slow. One minute later, the main landing gear of the aircraft struck the sea wall, the barrier that separates the San Francisco Bay from the parallel Runway 28 complex. The 300,000 pound aircraft was traveling at 100 miles per hour when it struck the seawall and began to spin like a top. Sliding and skidding across the runway; the aircraft began to break apart, coming to rest a half-mile from where it first made unplanned contact with the sea wall. Oil began leaking onto a hot engine and within seconds the fuselage erupted in flames, sending a dark plume of smoke skyward, visible all across the South Bay. Two evacuation slides deployed on the port side (left side) of the aircraft, and passengers began to evacuate the burning B777. HL214 had 307 passengers and

crew on-board. Three passengers sustained fatal injuries as a result of the accident; two died on scene and one died later at the hospital.[43]

It took only 60 seconds before the first tweet and photo of the accident appeared on Twitter. Krista Seiden, a Google employee, was in line to board her flight inside the terminal facing the runway, when she saw the events unfolding out of the window and snapped a picture of the drifting smoke plume from the wreckage of HL214. Seiden's tweet read, "Omg a plane just crashed at SFO on landing as I'm boarding my plane." Seiden's tweet was re-tweeted 1,411 times. Seven minutes later, Seiden would post another photo and send another tweet, "People being evacuated via the emergency slides at the plane at #SFO." [44]

Seiden's news breaking tweet was the lead story. Over the next 24 hours, Krista Seiden and her photo would be quoted in over 4,450 news articles.[45] At 12:13 p.m., Asiana passenger David Eun, a Samsung executive, tweeted a 16-word statement that included a photo of the smoking fuselage, "I just crash landed at SFO. Tail ripped off. Most everyone seems fine. I'm ok. Surreal…" Eun's tweet was re-tweeted 31,525 times. More importantly, the media, hungry for information, posted Mr. Eun's Tweet within minutes of being posted.[46] Messaging about the aircraft accident was already well underway by the time SFO joined the conversation.

On February 5, 2014, Charles Schuler, associate deputy airport director of communications and marketing for San Francisco International Airport, gave a presentation addressing the airport's creation and implementation of the "Social Media Management for Emergency Operations" which was added to the Standard Operating Procedure (SOP) in 2013.[47] SFO put the SOP into action on July 6, 2013. The time lag between the actual incident and the first official communique required the airport operator to become the "official information" source as opposed to the "first report" source. The official information source, by its nature, vets

information coming from the crowd against the official reports from the incident commander. At this point in the life cycle of the accident, SFO tweeted factual information about airport operations and press briefings. SFO created a Twitter hashtag for the incident, #sfoemergency. Personnel at SFO didn't send their first tweet until 12:48 p.m., more than one hour after the accident: "An accident has occurred at SFO. Asiana flight 214 inbound from Seoul has crashed. Rescue efforts underway." And, "All flights currently suspended. Some flights diverted to other airports. Please check with your airline for updated info." And, "Press conference at 1:30pm #sfoemergency." SFO sent 15 official tweets over the next 12-hour period. (All Twitter posts from Twitter archives, July 6, 2013).[48]

Although the "Please check with your airline for updated info" sounds like it's directed at passengers, SFO airport chose to use Twitter as the outlet for official information targeting the traditional media audience. Passengers and crew were from nine countries, and spoke eight different languages. Emergency responders transported 181 people to nine hospitals.[49] The challenge for SFO was to focus its communication efforts to the mass media with the knowledge that television, radio, print and the Internet would be "listening". The traditional media in turn would broadcast information worldwide, the messages focusing on key points. Families, friends and even the passengers were certainly interested in the information being "pushed-out" by SFO. The ratio of enplaned passengers to Twitter followers shows why the traditional media was the key audience for SFO. Four full-fledged media briefings were announced on Twitter (time and location). Much like the LAX example, media outlets attempted to engage citizen reporters on location via Tweeter and Facebook. As in the LAX example, information was at a premium. Charles Schuler, in his conference presentation on implementation of the airport's SOP, said, "… after the crash our website crashed (because of the volume of hits). Twitter became our primary

channel of communication for the first 24 hours after the crash."[50] Mr. Schuler stated that the airport focused on tweeting customer service messages. SFO's messages pushed via Twitter were about airport operations, airline policy changes and discounted hotel rooms for affected travelers and families.

Case Study #3:

Incident: Pittsburgh International Airport (PIT) snowstorm

Dates: November 25-27, 2013. Thanksgiving weekend

Social Media Platforms: Facebook, Twitter

Passenger Enplanements Calendar Year (CY) 2013: 3.8 million [51]

Social Media Statistics/Information: 16,560 "Likes" on Facebook, Twitter handle @PITairport and 6,410 "Followers" on Twitter

Social Media Objectives: "… use social media on a daily basis to share photos, provide important information/insights about the airport, share interesting aviation content and links from other organizations/experts/local media, recognize employees, promote airlines and airfare deals and promote the Airmall. We really have multiple purposes/goals/uses for social media, and it's always evolving."

The winter storm forecast for Thanksgiving 2013 (November 28) was to be the "big one". The National Weather Service (NWS) issued a winter storm warning for communities across the northeast. Public centers for transportation and other public-use facilities began to prepare for the onslaught of winter weather. Pittsburgh became a focus of the storm when a television reporter with local ABC affiliate KDAK created a Twitter hashtag, #Gobblegeddon, to follow tweets about the storm. It quickly became the "go-to hashtag" on Twitter for storm-related chatter. Nationwide, nearly 300 flights were canceled the Wednesday before Thanksgiving as the storm

made its way across North America[52]. The storm moved northeast and a warm air mass from the south pushed into the area Wednesday afternoon, causing rain instead of the forecasted snow showers. Overnight, the rain turned to snow and dropped three to four inches of wet snow on PIT.

In preparation for the snow event, the PIT communications department (PIT) finalized its communications plan for the biggest travel day of the year, now complicated by the NWS winter storm warnings. PIT's overall strategy was to get information out to travelers in advance of the storm, utilizing email blasts, press releases, the airport's website, and social media platforms Facebook and Twitter. PIT re-tweeted local meteorological reports, NWS updates and other weather-related news advisories. PIT tweeted airport condition reports and included photos of airport crews clearing snow off the airport movement areas. Between Monday, November 25, and Thursday, November 28, PIT posted 48 tweets. (All Twitter posts from archives, November 25-29, 2013.)[53] PIT hosted local and national media broadcasters for on-scene reporting and footage of PIT's preparations for the holiday travel surge and the potential impact of the forecasted storm.

PIT's earliest tweets and retweets were designed to alert followers to weather advisories and busy holiday travel preparations. PIT did not use the "Gobblegeddon" hashtag (the local go-to Twitter hashtag for Thanksgiving Holiday weather updates) to circulate airport travel-related information, nor did the "Gobblegeddon" hashtag reference the @PITairport Twitter handle (the local Twitter source for PIT travel information), thus limiting the distribution of PIT's outreach efforts. The real power of social media is the cross-referencing/sharing of messages among wider audiences than the individual reach of a single Twitter handle. A review of local network affiliates KDKA, WPXI and WTAE Twitter handles did not reveal any references or links back

to the @PITairport Twitter handle, limiting the effectiveness of PIT's social media response. PIT's first tweet referred to the upcoming holiday travel week and was sent on Monday, November 25, 2013 at 11:32 a.m., "Traveling thru PIT Tues/Wed? Get updated winter storm info from National Weather Service here: http://fb.me/OqEjFHDt."

At 6:02 p.m. PIT posted, "Busy holiday travel season + winter storm = potential travel delays. Follow @PITairport here and on Facebook for updates!" Prior to the morning rush on November 26th, at 3:30 a.m., PIT posted, "Read our Holiday Travel Advisory, http://fb.me/2Nb4jib3g."

PIT followed the holiday travel advisory tweet with another tweet at 6:10 a.m., "Crews have been out since midnight sweeping snow from runways. Currently, all 10-11AM departures are ON TIME. Security line <45 mins." At 9:25 a.m., PIT tweeted, "Traveling thru PIT Tues/Wed? Get updated winter storm info from National Weather Service here: http://fb.me/OqEjFHDt."

On the morning of Wednesday, November 27, 2013, 8:04 a.m., PIT posted, "Snow removal crews at work at PIT. All clear, no flight delays reported." According to Alyson Walls, PIT public relations supervisor, "The airport's objective was to use a variety of methods to get information out to travelers in advance of the holiday storm." It is unclear how many PIT traveler's level of awareness was improved through the use of PIT social media platforms, Facebook and Twitter. PIT's goal of using multiple methods of pushing information to include live local and national television broadcasts surely increased the reach of the PIT messages. However, the number of PIT Twitter "followers" and Facebook "likes" show the engagement level of those connected to the PIT airport through social media is slightly more than one-half of one percent of the annual number of enplaned passengers of 3.8 million.

Case Study #4:

What: Jacksonville International Airport (JAX) bomb threat

Date/Time: October 1, 2013

Social Media Platforms: Facebook, Twitter, YouTube, Google+, Flickr.

Passenger Enplanements Calendar Year (CY) 2013: 2.5 million[54]

Social Media Statistics: 13,318 "likes" on Facebook. Twitter handle, @JAXairport and 4,519 Twitter "followers"

Social Media Objectives: "Listen! Facilitate conversation between in-terminal partners and travelers to address customer service issues. Engage in two-way conversation with the traveling public. Foster positive relationships within the Jacksonville community. Increase brand awareness of the Authority and its four airport system."

On October 1, 2013, at approximately 5:30 p.m., a man later identified as Zeljko Causevic, attempted to push past TSA officers in the JAX security screening checkpoint. As TSA officers blocked his access to the sterile area, Mr. Causevic responded by declaring that he had a bomb in his camouflage backpack. Travelers in the vicinity report overhearing the TSA officers ask Mr. Causevic, "You have a bomb?" To which Mr. Causevic responds, "I have a bomb." Witnesses stated that TSA supervisors instructed TSA screeners to "stop screening." Then a minute or two passed before they heard, "Everyone out of here…" and "… then they pushed people out of the terminal." The TSA officers escorted the suspect to an area out of traveler view and instructed travelers in the screening checkpoint to evacuate the area.[55] Travelers in the screening area began to spill out of the emergency exits onto the airport aprons and onto the front curb, shutting down aircraft operations and clogging roadways. In the end, some 200 flights were cancelled and travel was disrupted into and out of JAX airport for the next several hours. The first photo taken from inside the terminal building looking out showed travelers walking on the aircraft apron and was

posted on Twitter within eight minutes of the incident. (All Twitter posts from archives October 1, 2013.)[56]

JAX posted its first Twitter message at 6:20 p.m., 50 minutes after TSA officers made contact with the suspect. JAX tweeted, "Due to police activity regarding suspicious pkgs., JAX airport has been evacuated. Please check with airline for flight updates."

Twitter became the primary outlet for communication for the airport operator and @JAXairport became the official news and information source about events unfolding at JAX. JAX shaped its messages to communicate official news and traveler information through Twitter. JAX countered inaccurate chatter on Twitter, confirming its position as the official news source on the Internet. JAX messages were retweeted 328 times over the life-cycle of the incident. The @JAXairport handle was referenced 290 times on Twitter, increasing the reach of JAX's message. JAX addressed travelers' concerns, arranged for media requests and was a reliable source of information for the media. The majority of comments from other Twitter users added little value for travelers or airport operator. At 7:09 p.m., JAX tweeted, "Passengers on in-bound flights currently on the ground will be bused to off-site hotels as transportation becomes available."

If that tweet was intended for those picking up friends and relatives on inbound flights did they get the message? Were those messages intended for the passengers on those flights in question? As in the other case studies, those informational tweets were primarily intended for the traditional media. JAX's objective was for the traditional media to broadcast that information as widely as possible, not only for family and friends, but also for anyone traveling through JAX that day or the following morning. Traditional media outlets monitor social media platforms, and post, retweet and re-broadcast the information as part of their public service mission as well as

their news gathering mission. At 7:19 p.m., JAX tweeted, "Media update will be held at 7:30 p.m. in the JAA admin building parking lot." And at 7:20 p.m., JAX tweeted, "Some inbound passengers transported to two hotels: Hilton Garden Inn (904) 421-2700 or Crowne Plaza (904) 741-4404."

Radio and television media repeated this message throughout their broadcasts, Internet sites, and social media platforms. JAX also posted to its Facebook platform; however, Facebook was used as a secondary communication tool. Facebook posts were focused on the airport's operational status. JAX only posted three times on Facebook. At 4:25 p.m. JAX posted, "The airport was evacuated due to a suspicious package found in the terminal. Passengers on in-bound flights currently on the ground will be bused to off-site hotels as transportation becomes available. Those two hotels are the Hilton Garden Inn (904) 421-2700 or the Crowne Plaza (904) 741-4404. An update for the media will be held at 7:30 p.m. in the JAA admin building parking lot. Because of a ground-stop at the airport, no outbound flights are leaving the terminal. If you had a scheduled departure, please check with your airline for flight status."[57]

At 8:03 p.m., JAX posted on Facebook, "Airline, TSA and airport personnel are returning to airport to process luggage and assist passengers. Garages are open. Contact your airline for flight updates. Thank you for your patience. We apologize for the inconvenience."

The net result was a Facebook audience of approximately 50,000 total views and approximately 3,500 comments on Twitter.[58] When comparing Facebook "likes" and Twitter "followers" to JAX passenger enplanements, the ratio of Facebook "likes" to enplaned passengers was less than one-half of one percent and about one-tenth of one percent of enplaned passengers were "followers" of JAX on Twitter. The tweets and posts were most likely not reaching affected travelers during the incident via social media platforms. By the time JAX sent

its first tweet, passengers were already standing on the curb. Instead of emergency communication, tweets were informational. Media outlets, as followers of social media, were seeking reliable sources of information. Therefore, media outlets were the primary target of JAX tweets and posts, ensuring JAX alerts and traveler information received wider distribution. As with the incidents addressed in the other case studies, official tweets lagged behind the raw on-scene tweets posted by any of the hundreds of smartphones in the area. However, the vetted informational tweets posted by the "official" source served as "official" information and were the ones retweeted by media outlets.

Case Study #5:

What: Akron-Canton Airport (CAK) social media pioneer

Website: http://www.akroncantonairport.com/

Primary Social Media Platforms: Facebook, Twitter, YouTube, Pinterest

Passenger enplanements Calendar Year (CY) 2013: 851,800 [59]

Social media statistics: 69,225 "likes" on Facebook. Twitter handle, @CAKairport, and 10,500 "followers" on Twitter

Social Media Objective: "Use of social media is the primary engagement tool at CAK. Use Facebook to quantify the reach of posts and engagement. Use Twitter for real-time interaction and in the event of an emergency. Listen, learn, act; inform, engage and entertain."

"A Better way to go" is a branding message that is consistent in all of CAK's marketing efforts. CAK espouses itself as the airport with shorter screening lines, and a long list of amenities, including; massage chairs, a business center, free Wi-Fi, power charging stations, a free shuttle service that follows the passenger to a parking spot, helps load luggage and offers a

complimentary morning newspaper on the drive to ticketing. CAK enplaned 851,800 passengers versus 4.3 million enplaned passengers at nearby Cleveland-Hopkins (CLE) in CY2013.[60]

CAK was an early airport leader in the use of social media, launching its Facebook page in October 2007, by posting, "CAK Celebrates 60th Anniversary and Dedicates New Gate Concourse (photo). The new gate concourse was built in response to record growth at the airport. CAK passenger traffic has tripled in the last decade, requiring new space to accommodate the additional traffic." CAK sent its first tweet on November 10, 2008, tweeting, "Akron-Canton Airport is excited to be on Twitter." (All Twitter posts are from archives).[61]

CAK's early adoption of the social media platforms for airport marketing and customer engagement is legendary within the National Airspace System (NAS). CAK's successful customer engagement model has been emulated across the NAS by other airport operators who aspire to create a successful social media engagement program, and has become the yardstick by which airport operators measure their own results.[62]

Over the next several years, CAK would create social media campaigns designed to encourage interaction from travelers coming into and out of CAK. The CAK website looks typical of most websites, but there are subtle features that are strategically designed to engage the website "surfer". CAK leverages its relationship with Southwest Airlines by trading advertising space and position for free flights and gift cards to use in their customer engagement programs. Icons for social media links are displayed on all web pages. CAK's Facebook and Twitter links are previewed with the first sentence of their latest post or tweet. The link is a click- through hyperlink to their CAK Facebook or Twitter account. There is also a quick-link to the airport's Travel Blog, "It's a Trip," a single-question survey about travel, and a graphic display depicting lot capacity at the airport's long-term and short-term parking lots. Perhaps the most interactive

piece is a single, "What do you think?" survey question related to air travel. CAK's strategy is built around the "A better way to go" message. CAK's strategic approaches to social media are designed to build an audience through interactive messaging. CAK's Facebook page was launched in 2007, and grew to 50,000 fans by November 2012. Kristie VanAuken, CAK's vice-president and chief marketing and communications officer, used customer engagement contests, giveaways, and interactive polling to grow social media participation by getting travelers to send in travel pictures and testimonials about the ease of travel from CAK and CAK's low fares. CAK partnered with AirTran, Frontier, and Southwest Airlines to entice fans to enter a chance to win discounted travel.

Marketing messages like these are designed for fans to "like" and interact with CAK through Facebook. Another message encourages "fans" to collect a freebie, another effort to use their passengers to spread the CAK logo and brand. On May 25, 2011, CAK posted, "Like this status if you are the proud owner of a CAK luggage tag. Ask for one at our Visitor Information Center before or after your next flight. And, it's free!"

A partnership with Traveline Travel Services in 2010 gave away a trip to Las Vegas to one lucky winner and encouraged other travelers to interact and win other prizes throughout the promotion, "Drumroll please... the winner of Countdown to Vegas is Lisa Iceman of Akron. Lisa wins a trip for two to the Aria in Vegas courtesy of Traveline Travel Services! But the fun isn't over yet! To celebrate our record-breaking year, we are thanking our customers all day long. So tell us how many times you flew in/out of CAK this year on our (Facebook) wall. We'll choose four of you to win a CAK prize pack (pictured below). We'll announce the winners at 11 am, 1 pm, 3 pm and 5 pm!" Another example of customers interacting through social media was a chance to share their travel adventures with other CAK Facebook "friends"; "This is the debut of

our new CAK Customer commercials starring our Facebook and Twitter fans. Thanks to all who submitted photos. Thumbs up if you like real CAK Customers in our commercials!"

VanAuken employs a similar interactive customer engagement approach with Twitter to build their audience. Twitter, with its 140-character limitation, creates a challenge in crafting messages. One of the tools available through Twitter is the use of hyperlinks that take the audience to a more detailed page on the Internet, "Go right now to http://LUVCAK.com! You could win $100 or 4 roundtrip tickets JUST for signing up! #LUVCAK and support @SouthwestAir."

VanAuken even uses Twitter to drive traffic to its other social media platforms: "Let's get social! On Pinterest? So are we! We love inspiring vacation pics, healthy choices, and overall FUN! http://www.pinterest.com/cakairport/."

The proof of CAK's social media marketing and customer engagement success is the ratio of Facebook "likes" and Twitter "followers" to passenger enplanements. With 851,000 enplaned passengers in CY2013, CAK reported 6.5%, or 55,000, were fans on Facebook and 0.08% (6,800) of CAK's enplaned passengers were "followers" on Twitter. CAK is the leader among all U.S. airports in social media scope and reach. Even as CAK outpaces all other U.S. airports, the total reach is minimal in the scope of travelers in the airport at any one time. In the "2013 Social Media Study of 90 Busiest U.S. Airports", CAK outpaces all of the top 90 busiest U.S. airports in passenger engagement to enplaned passengers. The strength of CAK's customer engagement plan is based upon a consistent message across all social media platforms as well as across traditional media outlets. The message is, "Low fares. Low fares. Low fares. Thank you Southwest Airlines!! But also, we offer a relaxing experience. Price + experience = *a better way to go.*"

In 2013, CAK placed first in the Airports Council International - North America's 2013 Excellence in Airport Marketing and Communications Awards - Social Media Campaign.[63]

Case Study #6:

Incident: Reno-Tahoe International Airport (RNO) Triennial Disaster Exercise

Date: May 29, 2014

Social Media Platforms: Facebook, Twitter, YouTube, Pinterest

Passenger Enplanements Calendar Year (CY) 2013: 1.67 million [64]

Social Media Statistics/Information: 7,998 "Likes" on Facebook. Twitter handle @RenoAirport, and 3,925 "Followers"

Social Media Objective: "Provide quality customer service through a medium passengers are utilizing. Actively engage with customers and utilize the feedback received to monitor and improve the passenger experience. Encourage passenger spending with non-airline tenants. Foster positive word-of-mouth among passengers to advocate the Reno-Tahoe International Airport (RNO) brand. And foster the brand that RNO provides the amenities of a larger airport with the personality of a smaller one."

RNO was determined to renew its efforts in social media, re-launching its social media strategy in September 2013. RNO took advantage of an opportunity to test its social media plan and demonstrate improved social media skills during its FAA-mandated triennial community emergency disaster exercise, scheduled for May 29, 2014. In preparation for this community-wide disaster exercise, RNO partnered with the University of Nevada, Reno, Reynold's School of Journalism and Center for Advanced Media Studies (UNR). RNO also consulted with KRNV News Channel 4, the local NBC affiliate. These partnerships were developed in order to accomplish two goals: (1) Test RNO's social media communication strategy during a simulated

emergency situation and, (2) review, evaluation points and utilize feedback from UNR evaluators and KRNV partners to improve its social media communications strategy. A systematic approach to the social media crisis communications strategy was developed in collaboration with three subject matter experts from UNR and KRNV. The strategy was developed, tested and implemented by the RNO team on May 29. The crisis communications plan was to utilize current technology and was focused around the use of social media, primarily Twitter.[65] The UNR evaluators participated on exercise day in developing exercise injects in order to create "unknowns", challenging the RNO team, testing RNO response time, and evaluating the communication tone, style and effectiveness. UNR was assisted by other community communications professionals and UNR journalism and communications students, who did the actual posting of injects, including posting images of the accident scene. KRNV sent reporters and a camera crew to the exercise site, as they would in an actual accident. This allowed for real "news-like" coverage of the accident and provided RNO critical exercise feedback.

At 8:30 a.m., on the morning of May 29, 2014, the exercise controller began the exercise by deploying a red smoke canister on Peckham Lane, a quarter-mile south of the approach end of Runway 34 Left. The red smoke was the signal that the exercise was underway, simulating the arrival of a B737 experiencing an uncontrolled landing short of the assigned runway. The B737 struck two vehicles traveling on the east-west roadway. Upon observing the red smoke plume, RNO Air Traffic Control (ATC) activated the "crash phone" dispatching airport rescue and firefighting (ARFF) personnel to the accident scene and alert the airport communications center (Aircom) of the emergency. This notification by ATC resulted in Aircom activating the airport emergency plan (AEP). RNO established hashtags to be used for the event, #RNOtest and #@RNOTraining. (All Twitter posts from Twitter archives, May 29, 2014).[66] The first tweet was

posted within three minutes of the accident, "OMG", contained a photo of the smoke column, but no identifying landmarks or a description of the incident location. Another Twitter user posted at 8:35 a.m., "Smoke near the Reno Tahoe Airport", and included an accompanying photo. While you will never have 100% of the facts in an incident, social media demands a response from an official source, in this case, the airport operator. If the airport operator is not providing information, the information void will be filled by someone else. One of the benefits to social media in a crisis is that anyone at the incident scene with a smartphone can provide a live-action report. On the other hand, one of the obstacles to social media in a crisis is that anyone at the incident scene with a smartphone can provide a live-action report.

At 8:37 a.m., RNO posted the following message, "#EmergencyTraining-Airport officials confirm an incident is under way @RNOtraining. Emergency crews on scene, updates to follow." RNO attempted to remain the official source of news and information, by not reacting to every post speculating about the accident. There was a conscious decision to post material facts about the accident. RNO leveraged this position by focusing its message to the media, not the speculators. Many Twitter users were simply trying to describe what they saw and include photos of the scene. However, speculation on the cause of the accident began to show up in the Twitter feed. One post was about "sleeping controllers", another about a "drunken pilot" or a "terrorist plot". But the posts that created the most confusion for RNO were in a foreign language. RNO was challenged by the sheer volume of information coming across the Twitter feed. At 9:01 a.m., RNO posted, "Reno Airport closed due to incident. No flights landing/taking off. Contact airline for flight info/reschedule #RNOtest."

RNO continued to post something every 10-15 minutes. RNO announced a press conference that was scheduled at 10 a.m. at the accident site. The Twitter feed continued to heat up with

accident reports and rumors. At 9:35 a.m., RNO acknowledged the demand for information with this tweet, "We know people are looking for information. More info regarding flight to come at 10am. #RNOtest. " Shortly after the press conference began, RNO reported the number of fatalities and injured on Twitter, "According to airport officials, seventy-three passengers are injured and sixteen have died. More info to come #RNOtest." At 10:10 a.m., RNO made a mistake; RNO incorrectly stated the number of dead victims at seventy-three versus an earlier report of sixteen fatalities. The Twitter audience repeated the incorrect information over and over again. RNO tried to claw the post back, restating the correct victim count several times to ensure the audience has the correct information. The Twitter audience piles on, "Is the RNO response person sleeping on the job? False tweets and false information. #RNOfail @RNOTraining #RNOtest."

The disaster exercise did not present an accurate life cycle of an event like the one simulated on May 29. In "real life", the response and recovery phases of an accident like the one in this exercise will cover several operational periods (an operational period is generally defined in 12-hour blocks). For the purposes of this disaster exercise, the entire incident was condensed into a single eight-hour operational period. RNO posted 31 tweets over the eight-hour period. Many of the posts repeated previous information.

One of the key points the UNR evaluators made during the debriefing session was the importance of establishing a list of priorities for possible disaster/emergency scenarios. RNO should consider creating a database of pre-approved statements to be used in the event of an emergency that would be accessible for rapid dissemination. This would allow RNO to exhibit greater control of the information space in times of crisis. Everyone makes mistakes, and RNO made a very visible one when it transposed the number of fatalities with the number of injured

victims. The evaluators recommended establishing procedures and guidelines for correcting incorrect information. Another recommendation (and more of a policy decision) is the creation of a communications command center in the emergency operations center (EOC) that would have adequate space for additional personnel and monitors that would display the airport website, the Twitter feed, and live video generated from the incident scene (from mobile command vehicle). This communications command center should be equipped with the latest technology, including an adequate number of computers, tablets, and chargers for staff. The evaluators suggested that RNO should take the time and effort to establish an official airport blog or microsite to be used during an emergency. The blog or microsite would be a location where all official information would be maintained; an information hub that would contain more detailed data than Twitter, due to its 140-character limitation. This microsite would provide a blend of traditional media and social media, and the complete text of official statements. Twitter should be used to "tease" facts and drive users to the microsite for more detailed and up-to-date information. After an aircraft accident, the potential audience is very large due to the broad impact of such an event; traditional press releases and the full text of press conferences need to be available. One key item that is not directly related to social media is relationship building with the local media and partnerships with community service organizations; like the Red Cross, local hospitals, local government agencies, among others.[67]

Conclusion/Summary

Social media is one of the most innovative technologies in the past 50 years and it has undoubtedly changed the way the world communicates and shares information. Social media has many positive attributes and can be a valuable tool in a time of crisis; it is also the innovative technology of choice for airport operators, changing how they communicate with customers, and

promoting airport amenities and tenants. The successful integration of the use of social media platforms requires a deeper commitment on the part of the organization than it appears at first blush. In the 2013 Airport Social Media Survey, the majority of survey respondents stated that social media was free and that they dedicated little or no budget to social media integration and its continued use. Successful use of social media requires a social media plan, staff training, and a commitment to monitor the social media platforms, at all times. Airport operators need to understand that in crisis communication their social media audience is not necessarily the travelers and guests in the terminal at that moment, but rather the traditional media. It is radio and television that will spread the airport's message across the airwaves and across their respective Internet platforms.

Although, smartphones and tablet computers are the tool of choice for a large percentage of the traveling public, travelers aren't relying on the use of social media to navigate their way. The traveling public uses a variety of tools to find information they are searching for, including Internet browsers, Internet mapping tools, and other websites and mobile applications (apps). These are the tools of choice for today's travelers, not Facebook and Twitter. The platform that is "in" today may be "out" tomorrow when the next "thing" comes along. Snapchat and Yik Yak are already surfacing as the next "thing" in communications.[68] Airport operators need to determine the proper department to handle social media and invest in training and staffing. Airport operators need to develop a strategic plan for their use of social media and how they will communicate with its customers, market their amenities, vendors and services.

There are more smartphones and mobile devices in the hands of the American travelers than ever before.[69] According to Pew Research in 2014, 64% of the U.S. adult population owned a smartphone and 42% owned a tablet computer.[70]

Airport communication centers may be the best option to monitor and respond to customer inquiries, in order to ensure that someone on staff is listening at all times. Currently, the majority of responding airport operators reported that marketing and public relations monitor social media, typically Monday through Friday 8 a.m. - 5 p.m. Airports are 24/7 operations and social media is an anytime, anyplace technology. Aircoms are staffed around the clock, 365 days of the year. With appropriate training, shifting social media responsibilities to Aircom, airport operators will reap dividends in terms of customer service and reduced response times. Aircoms currently handle these same customer service interactions via telephone and radio and have the responsibility to dispatch police, fire and other airport resources. Marketing and PR can continue to utilize social media for the purpose of marketing and promotion. Whatever the next "thing" is in communications, airport operators will need to be flexible and adaptable to changing technologies in an effort to keep up with the hyper-pace that makes up airport activity.[71]

ILLUSTRATION

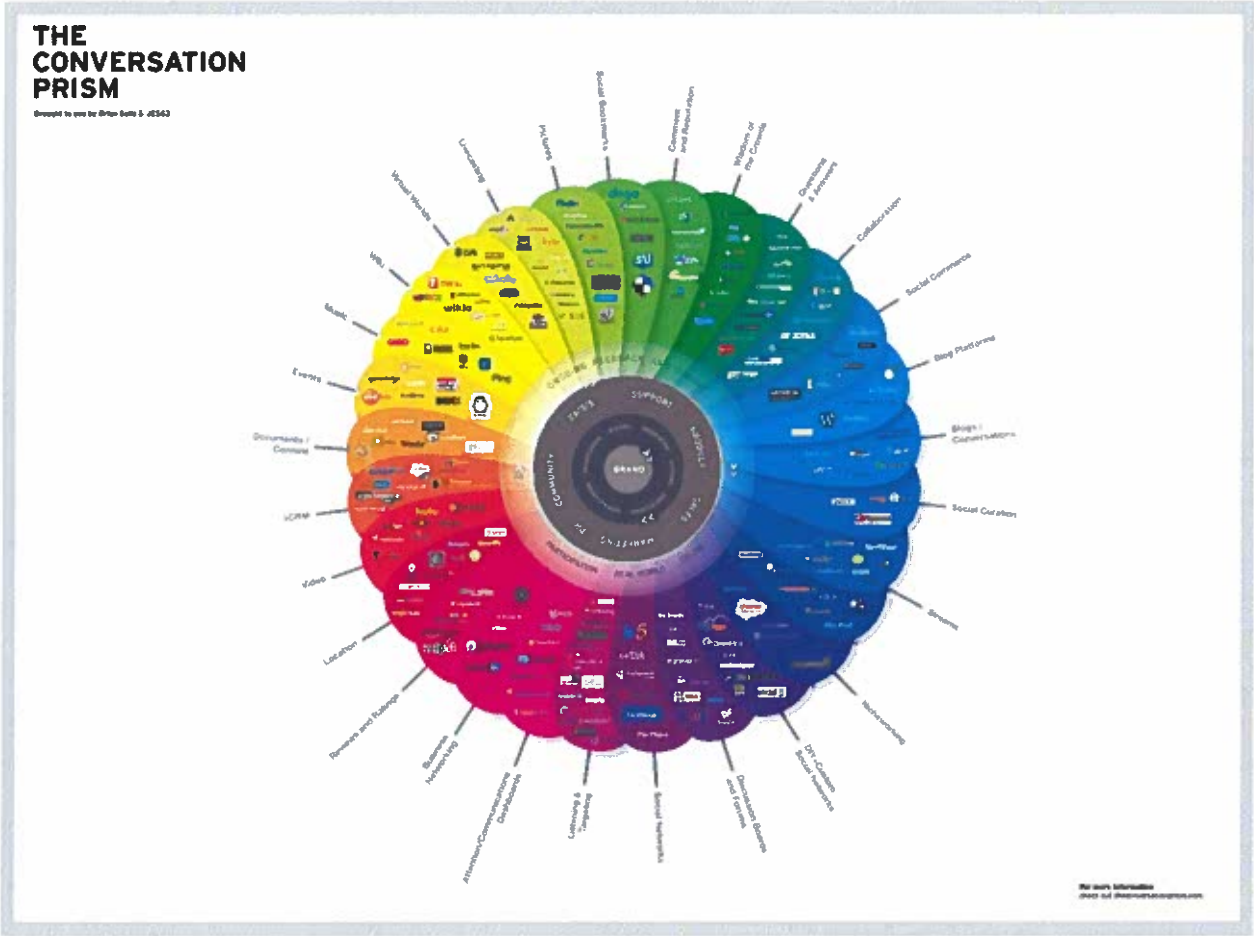

TABLE A-1

2013 Social Media Study of 90-Busiest U.S. Airports

Rank	ID	City	2012 Annual Enplanements	Website	Facebook	FB to PAX	FB Name	Twitter	Twitter to PAX	Twitter Handle	Pinterest	Foursquare	FS Check-ins	Other
1	ATL	Atlanta	45,308,407	www.atlanta-airport.com	44,203	0.10%	Hartsfield-Jackson Atlanta International Airport	13,767	0.03%	@atlanta_airport	yes	yes	1,227,292	Youtube, Flickr
2	ORD	Chicago	32,171,743	www.flychicago.com	81,544	0.25%	Chicago O'Hare International Airport	4,801	0.01%	@fly2ohare	no	yes	1,173,243	Youtube
3	LAX	Los Angeles	31,326,268	www.lawa.org	158,000	0.50%	Los Angeles International Airport	27,210	0.09%	@lax_official	no	yes	1,152,943	
4	DFW	Fort Worth	28,022,877	www.dfwairport.com	41,966	0.15%	Dallas/Fort Worth International Airport	13,504	0.05%	@dfwairport	no	yes	725,947	Youtube, Instagram
5	DEN	Denver	25,799,832	www.flydenver.com	45,710	0.18%	Denver International Airport	4,712	0.02%	@DENAirport	yes	no	720,702	Youtube
6	JFK	New York	24,520,943	www.panynj.com	-	0.00%	no	14,363	0.06%	@NY-Nyairports	no	no	770,022	
7	SFO	San Francisco	21,284,224	www.flysfo.com	67,677	0.32%	San Francisco International Airport	17,950	0.08%	@flySFO	yes	yes	1,098,529	Youtube
8	CLT	Charlotte	20,032,426	www.charlotteairport.com	12,373	0.06%	CLT Airport	1,962	0.01%	@CLTAirport	no	no	499,806	Youtube
9	LAS	Las Vegas	19,941,173	www.mccarran.com	44,481	0.22%	McCarran International Airport	6,648	0.03%	@LASairport	no	no	698,240	
10	PHX	Phoenix	19,556,189	www.skyharbor.com	28,007	0.14%	Phoenix Sky Harbor International	10,111	0.05%	@PHXSkyHarbor	yes	no	531,129	Google Plus, Instagram, Youtube
11	IAH	Houston	19,038,958	www.fly2houston.com	29,314	0.15%	George Bush Intercontinental Airport	5,066	0.03%	@iah	no	no	405,891	Digg, Youtube
12	MIA	Miami	18,987,477	www.miami-airport.com	3,227	0.02%	Miami International Airport - MIA	534	0.00%	@iflymia	no	no	397,802	
13	MCO	Orlando	17,159,425	www.orlandoairports.net	56,996	0.33%	Orlando International Airport (MCO)	1,357	0.01%	@MCO	yes	no	523,272	Youtube
14	EWR	Newark	17,035,098	www.panynj.com	-	0.00%	no	14,363	0.08%	@NY-Nyairports	no	no	565,633	
15	SEA	Seattle	16,121,123	www.portseattle.org	32,387	0.20%	Seattle-Tacoma International Airport	3,001	0.02%	@SeaTacAirport	no	no	589,987	Youtube
16	MSP	Minneapolis	15,943,751	www.msairport.com	14,033	0.09%	MSP Airport	7,979	0.05%	@mspairport	no	no	471,108	
17	DTW	Detroit	15,599,877	www.metroairport.com	25,733	0.16%	Detroit Metro Airport (DTW)	4,633	0.03%	@DTWeetin	no	yes	443,037	
18	PHL	Philadelphia	14,587,631	www.phl.org	971	0.01%	Philadelphia International Airport	2,702	0.02%	@PHLAirport	no	no	477,203	Flickr
19	BOS	Boston	14,293,675	www.massport.com	58,181	0.41%	Boston Logan International Airport	23,877	0.17%	@bostonlogan	no	no	541,652	
20	LGA	New York	12,818,717	www.panynj.com	-	0.00%	no	14,363	0.11%	@NY-Nyairports	yes	no	703,274	
21	FLL	Fort Lauderdale	11,445,101	www.fll.net	18,967	0.17%	Fort Lauderdale - Hollywood International Airport	758	0.01%	@FLLFlyer	no	no	307,550	
22	BWI	Glen Burnie (BWI)	11,183,965	www.bwiairport.com	2,017	0.02%	BWI Thurgood Marshal Airport (BWI)	10,800	0.10%	@BWI_Airport	no	no	356,512	Flickr
23	IAD	Dulles	10,785,683	www.metwashairports.com	9,052	0.08%	Washington Dulles International Airport	9,555	0.09%	@dcairports	no	yes	347,873	
24	SLC	Salt Lake City	9,579,836	www.slcairport.com	11,826	0.12%	Salt Lake City International Airport	1,346	0.01%	@SLCAirport	no	no	218,282	
25	DCA	Arlington	9,462,206	www.metwashairports.com	-	0.00%	no	9,555	0.10%	@dcairports	no	no	460,044	
26	MDW	Chicago	9,431,796	www.flychicago.com	13,537	0.14%	Chicago Midway International Airport	1,497	0.02%	@fly2midway	no	no	372,207	Youtube
27	HNL	Honolulu	9,210,270	www.hawaii.gov.hnl	18,778	0.20%	Honolulu International Airport	-	0.00%		no	no	138,281	
28	SAN	San Diego	8,686,592	www.san.org	31,028	0.36%	San Diego International Airport	10,570	0.12%	@SanDiegoAirport	yes	no	336,093	Flickr, Youtube
29	TPA	Tampa	8,216,153	www.tampaairport.com	33,049	0.40%	Tampa International Airport	3,640	0.04%	@FlyTPA	no	no	289,402	Flickr, Youtube
30	PDX	Portland	7,142,610	www.flypdx.com	19,296	0.27%	Portland International Airport	1,690	0.02%	@flypdx	no	no	240,642	Youtube
31	STL	St. Louis	6,200,252	www.flystl.com	2,698	0.04%	Lambert-St. Louis International Airport (official)	5,762	0.09%	@flystl	no	no	202,749	
32	HOU	Houston	5,043,708	www.fly2houston.com	5,590	0.11%	William P. Hobby Airport (HOU)	2,074	0.04%	@HobbyAirport	no	no	135,740	
33	OAK	Oakland	4,923,435	www.flyoakland.com	33,944	0.69%	Oakland International Airport	1,189	0.02%	@iFlyOAKland	no	yes	164,917	
34	MCI	Kansas City	4,866,850	www.flykci.com	11,669	0.24%	Kansas City International Airport	4,166	0.09%	@KCIAirport	no	yes	185,164	Youtube
35	BNA	Nashville	4,796,868	www.flynashville.com	-	0.00%		-	0.00%		no	no	194,357	
36	AUS	Austin	4,606,143	www.austintexas.gov/airport	10,136	0.22%	Austin-Bergstrom International Airport	3,247	0.07%	@austinairport	no	no	306,088	
37	RDU	Raleigh	4,489,097	www.rdu.com	11,086	0.25%	Raleigh-Durham International Airport	4,583	0.10%	@RDUAirport	no	no	197,644	Flickr, Youtube
38	SNA	Santa Ana	4,381,956	www.ocair.com	10,646	0.24%	John Wayne Airport, Orange County	3,331	0.08%	@JohnWayneAir	yes	yes	175,230	
39	SMF	Sacramento	4,357,899	www.smf.aero	10,186	0.23%	Sacramento International Airport	3,282	0.08%	@SacIntlAirport	no	no	110,597	
40	CLE	Cleveland	4,325,353	www.clevelandairport.com	47,892	1.11%	Cleveland Hopkins International Airport	1,691	0.04%	@GoingPlacesCLE	yes	no	169,106	
41	MSY	Metairie	4,293,538	www.flymsy.com	16,601	0.39%	Louis Armstrong New Orleans International Airport	4,571	0.11%	@NO_Airport	no	yes	195,067	
42	SJU	San Juan	4,204,478	www.prpa.gobierno.pr	-	0.00%		-	0.00%		no	no		
43	SJC	San Jose	4,077,644	www.flysanjose.com	10,585	0.26%	San Jose International Airport (SJC)	1,399	0.03%	@FlySJC	yes	yes	187,663	
44	SAT	San Antonio	4,036,598	www.sanantonio-airport.gov	11,185	0.28%	San Antonio International Airport	3,439	0.09%	@Saairport	yes	no	134,987	
45	DAL	Dallas	3,902,521	www.dallas-lovefield.com	1,307	0.03%	Dallas Love Field	2,826	0.07%	@DallasLoveField	no	yes	130,418	

TABLE A-1 (cont.)

2013 Social Media Study of 90-Busiest U.S. Airports

Rank	ID	City	2012 Annual Enplanements	Website	Facebook	FB to PAX	FB Name	Twitter	Twitter to PAX	Twitter Handle	Pinterest	Foursquare	FS Check-Ins	Other
46	PIT	Pittsburgh	3,889,997	www.flypittsburgh.com	11,714	0.30%	Pittsburgh International Airport	4,146	0.11%	@PITairport	no	no	160,302	
47	MKE	Milwaukee	3,707,890	www.mitchellairport.com	15,531	0.42%	Mitchell Airport	5,252	0.14%	@MitchellAirport	no	no	197,081	
48	RSW	Fort Myers	3,630,737	www.flylcpa.com	1,448	0.04%	Southwest Florida International Airport (RSW)	-	0.00%		no	no	71,295	
49	IND	Indianapolis	3,585,246	www.indianapolisairport.com	11,988	0.33%	Indianapolis International Airport	9,558	0.27%	@INDairport	yes	no	180,559	Flickr, Youtube
50	MEM	Memphis	3,359,622	www.mscaa.com	4,142	0.12%	Memphis International Airport	-	0.00%		no	no	112,144	
51	CMH	Columbus	3,095,360	www.flycolumbus.com	10,347	0.33%	Port Columbus International Airport	5,650	0.18%	@PortColumbusCMH	no	no	157,518	
52	CVG	Greater Cincinnati	2,927,218	www.cvgairport.com	1,666	0.06%	Cincinnati/Northern Kentucky	5,250	0.18%	@CVGAirport	no	no	114,138	
53	OGG	Kahului	2,861,278	www.hawaii.gov/ogg	-	0.00%	no	-	0.00%		no	no		
54	PBI	West Palm Beach	2,796,324	www.pbia.org	4,385	0.16%	Palm Beach International Airport	130	0.00%	@PBI_airport	no	no	68,493	
55	BDL	Windsor Locks	2,647,064	www.bradleyairport.com	55	0.00%	Bradley International Airport-BDL	2,936	0.11%	@bradley_airport	no	no	83,217	
56	ABQ	Albuquerque	2,630,570	www.cabq.gov/airport	5,270	0.20%	Albuquerque International Sunport	9,200	0.35%	@cabq	no	no	64,246	Flickr, Youtube
57	BUF	Buffalo	2,588,660	www.buffaloairport.com	3,277	0.13%	Buffalo Niagara International Airport	1,943	0.08%	@buffalo_niagara	yes	no	88,607	
58	JAX	Jacksonville	2,579,021	www.flyjax.com	10,628	0.41%	Jacksonville International Airport	2,733	0.11%	@jaxairport	yes	yes	96,484	
59	ANC	Anchorage	2,249,475	www.anchorageairport.com	9,760	0.43%	Ted Stevens Anchorage International	986	0.04%	@alaskadotpf	no	no	33,308	
60	ONT	Ontario	2,142,387	www.flyontario.com	3,521	0.16%	Ontario Intl Airport	331	0.02%	@ONT_official	no	no	54,366	
61	BUR	Burbank	2,027,197	www.burbankairport.com	6,055	0.30%	Burbank Bob Hope Airport (BUR)	1,440	0.07%	@bobhopeairport	no	no	98,262	
62	OMA	Omaha	2,018,526	www.flyoma.com	2,182	0.11%	Eppley Airfield	-	0.00%	no	no	no	83,588	
63	PVD	Warwick	1,808,317	www.pbdairport.com	5,183	0.29%	T.F. Green Airport (Warwick Airport)	-	0.00%	no	no	no	59,112	
64	OKC	Oklahoma City	1,801,613	www.flyokc.com	4,232	0.23%	Will Rogers World Airport	1,769	0.10%	@fly_okc	no	no		
65	TUS	Tucson	1,710,638	www.flytucson.com	4,661	0.27%	Tucson International Airport	3,609	0.21%	@tucsonairport	no	no	47,444	
66	RNO	Reno	1,685,333	www.renoairport.com	3,971	0.24%	Reno-Tahoe International Airport	2,295	0.14%	@rnoairport	yes	yes	44,330	Flickr, Youtube
67	ORF	Norfolk	1,649,123	www.norfolkairport.com	21,513	1.30%	Norfolk International Airport	2,087	0.13%	@NorfolkAirport	yes	no	60,466	Youtube
68	SDF	Louisville	1,642,697	www.flylouisville.com	-	0.00%	no	-	0.00%	no	no	no	62,883	
69	RIC	Highland Springs	1,581,617	www.flyrichmond.com	5,930	0.37%	Richmond International Airport (RIC)	15,389	0.97%	@Flack4RIC	no	yes	68,688	
70	LGB	Long Beach	1,554,844	www.lgb.org	7,847	0.50%	Long Beach Airport	3,477	0.22%	@LBAirport	no	no	66,603	Youtube, Yelp\
71	GUM	Tamuning	1,477,926		-	0.00%		-	0.00%		no	no		
72	GEG	Spokane	1,456,275	www.spokaneairports.net	2,032	0.14%	Spokane International Airport (GEG)	251	0.02%	@iflyspokane	no	no	32,020	
73	ELP	El Paso	1,442,100	www.elpasointernationalairport.com	5,129	0.36%	El Paso International Airport (ELP)	1,520	0.11%	@ElPasoTXGov	no	no		
74	BHM	Birmingham	1,412,481	www.flybirmingham.com	2,483	0.18%	Birmingham-Shuttlesworth International Airport	2,133	0.15%	@BHMAirport	yes	yes	54,345	
75	KOA	Kailua Kona	1,367,091	www.hawaii.gov.koa	-	0.00%	no	-	0.00%	no	no	no		
76	TUL	Tulsa	1,324,175	www.tulsaairports.com	5,786	0.44%	Tulsa International Airport	3,540	0.27%	@tulsaairports	no	no	41,636	
77	LIH	Lihue	1,308,549	www.hawaii.gov.lih	-	0.00%		-	0.00%		no	no		
78	BOI	Boise	1,307,505	www.iflyboise.com	803	0.06%	Boise Airport	1,751	0.13%	@iflyboise	no	no	33,196	
79	DAY	Dayton	1,288,541	www.daytonairport.com	19,727	1.53%	Dayton, Ohio - City government	5,373	0.42%	@cityofdayton	no	yes	48,351	
80	CHS	Charleston	1,283,952	www.chs-airport.com	3,452	0.27%	Charleston International Airport	2,661	0.21%	@CHS_Airport	yes	no	52,638	
81	ALB	Albany	1,220,286	www.albanyairport.com	467	0.04%	Albany International Airport	-	0.00%	no	no	no	41,582	
82	MHT	Manchester	1,209,987	www.flymanchester.com	5,997	0.50%	Manchester-Boston Regional Airport	3,706	0.31%	@flymanchester	no	no		
83	ROC	Rochester	1,199,194	www.monroecounty.gov	2,729	0.23%	Greater Rochester International Airport	-	0.00%	no	no	no	54,479	
84	LIT	Little Rock	1,111,381	www.fly-lit.com	994	0.09%	Fly Bill and Hillary Clinton National Airport	1,349	0.12%	@LITAirport	no	no	32,078	Flickr
85	GRR	Grand Rapids	1,063,151	www.grr.org	3,165	0.30%	Gerald R. Ford International Airport	-	0.00%		no	no	53,670	
86	DSM	Des Moines	1,018,004	www.dsmairport.com	2,731	0.27%	DSM International Airport	2,963	0.29%	@dsmairport	no	no	56,127	Youtube
87	SYR	Syracuse	968,644	www.syrairport.org	965	0.10%	Syracuse Hancock International Airport	164	0.02%	@syracuseairport	no	no	44,085	
88	GSP	Greer	936,288	www.gspairport.com	3,598	0.38%	Greenville-Spartanburg International Airport	2,263	0.24%	@GSPAirport	no	no	36,134	
89	CAK	Akron	910,313	www.akroncantonairport.com	58,425	6.42%	Akron-Canton Airport	7,692	0.84%	@CAKairport	yes	no	33,496	
90	HPN	White Plains	893,064	airport.westchestergov.com	-	0.00%	no	-	0.00%	no	no	no	36,585	

TABLE A-2
2013 Social Media Survey Key Results

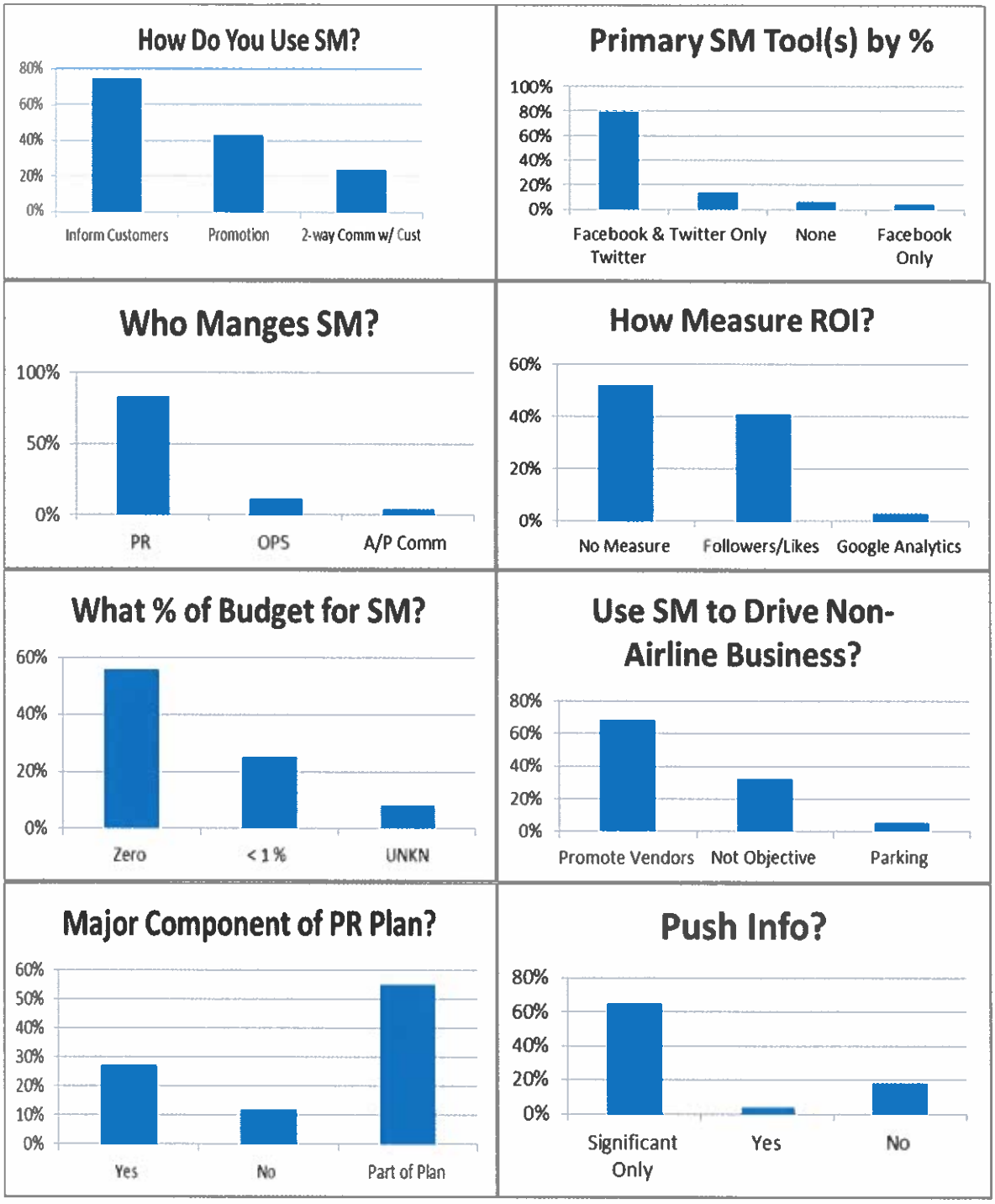

TABLE A-2 (cont.)

2013 Social Media Survey Key Results

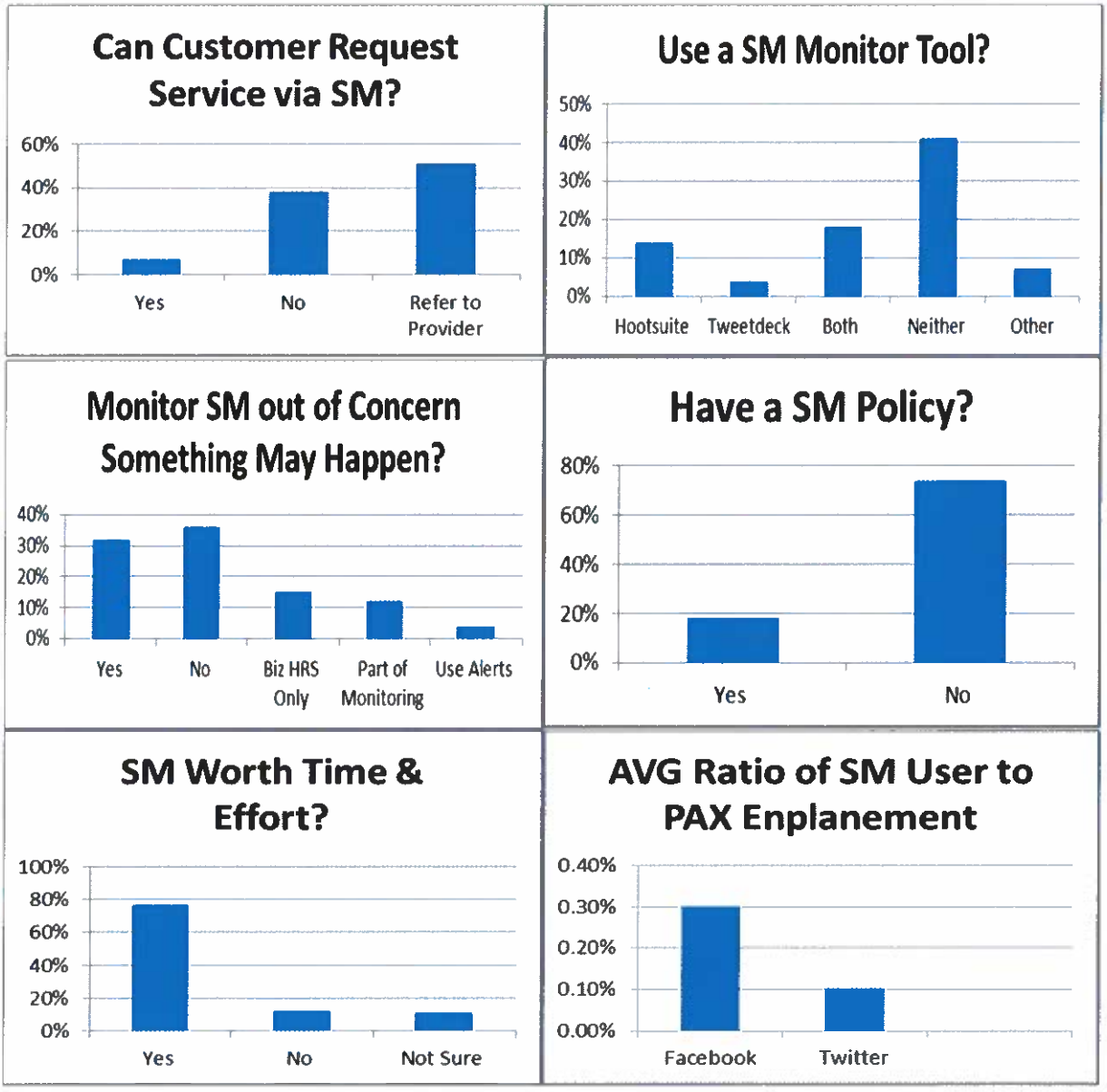

TABLE A-3

2013 SOCIAL MEDIA SURVEY & AIRPORT RESPONSES

ATL	F, T	Y, FS	Inform	Promo	No Measure	PR	Zero	Part of plan	Significant Only	Refer To Provider	No	No	No	Yes
LAX	F, T	Gr, FL,	Customer SVC	Not Objective	Track Followers, Likes	PR-1	Zero	Yes	Yes	Refer To Provider	Part of Monitoring	Hootsuite	No	Yes
ORD	F, T	Y, P	Customer SVC	Promo	Engagement 8% FB, 20% T	PR-3	Zero	Part of plan	Significant Only	Refer To Provider	Part of Monitoring	Sprout	Yes	Yes
			BLANK											
SAO	F, T	Y, P	Customer SVC, Crisis Com	Promo	No Measure	PR	<1%	Part of plan	Significant Only	No	Yes	No	No	Yes
LAS	F, T	BLANK	Inform	Promo	No Measure	PR-2	Zero	Part of plan	Significant Only	Refer To Provider	Biz Hrs Only	Tweetdeck	No	Yes
IAH	F, T	Y	InformPoint to Promo	Parking Info	No Measure	PR-1	Zero	Part of plan	Significant Only	Yes	Part of Monitoring	Hootsuite/Tweetdeck	Yes	Yes
			BLANK											
EWR	T	BLANK	InformCustomer SVC	Not Objective	No Measure	PR-1 10% of time	<1%	No	Significant Only	No	No	No	No	No
MSP	F, T	Y	2-Way Comm	Promo	Klout score	PR 25%	Zero	Part of plan	Share Info	No	Yes	Hootsuite	No	Yes
			BLANK											
PHL	T	FL	Inform	Not Objective	No Measure	PR 33%	Zero	Yes	Delays - hourly. We update 3x a day	Refer To Provider	Biz Hrs Only	No	No	Yes
			BLANK											
FLL	T	BLANK	Informservice issues	Not Objective	Track followers	PR	Zero	Part of plan	Significant Only	Refer To Provider	Biz Hrs Only	Hootsuite/Tweetdeck	No	Yes
			BLANK											
MDW	F, T	T, FS, I	Customer SVC	Promo	Track Followers, Likes	PR	<1%	Part of Plan	Only when able	Refer To Provider	Yes	Hootsuite	No	Yes
STL	F, T	BLANK	InformPoint to Promo	Not Objective	No measure	PRMGR +1	<5%	Yes	Share Info	Refer To Provider	Yes	Hootsuite	No	Yes
			BLANK											
CLE	Y, T	BLANK	InformPromo	Parking Info	Parking Convers	PR	5%	Yes	Significant Only	Refer To Provider	No	Hootsuite/Tweetdeck	No	Yes
BNA	F, T	BLANK	InformPromo	Promo	No Measure	PR	Zero	Part of plan	No	Refer To Provider	Yes	Hootsuite	No	Yes
			BLANK											
BDU	F, T	Y, FL	InformPromo	Promo	Track Followers	PR	Unknown	Yes	Significant Only	Refer To Provider	Biz Hrs only	Hootsuite	In Progress	No
			BLANK											
SMF	F, T	BLANK	2-Way Comm	Promo	No measure	PR-1 - 15% Time	Zero	No	Significant Only	No	Yes	No	No	Not Sure
			BLANK											
MSY	F, T	BLANK	Inform 2-Way Comm	Promo	Track Followers	PR-1	Zero	Part of Plan	Significant Only	Maybe - may not see	Yes	Cell Phone alerts	No	Yes
SAT	F, T	Y	InformPromo, 2-Way Comm	Promo	Insights	PR	Zero	Yes	Significant Only	No	Biz Hrs only	Hootsuite/Tweetdeck	No	Yes
			BLANK											
PIT	F, T	BLANK	InformPromo	Promo	Google Analytics	PR	<1%	Yes	No	No	No	Hootsuite	Yes	Yes
			BLANK											
SMGM	n/a	BLANK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No	n/a	No
			BLANK											
BOX	T	BLANK	Crisis Comm	Promo	No Measure	PR-1	Zero	No	Significant Only	No	No	No	No	Yes
			BLANK											
LAX	F, T	Y, Gr, FL	2-Way Comm	KPI's Promo	KPI's	PR-1	<1%	Part of Plan	Significant Only	Refer To Provider	No	Hootsuite/Tweetdeck	No	Yes
ONT	F, T	BLANK	Customer SVC	Not Objective	Track Followers, Likes	PR-1	Zero	Yes	Yes	Refer To Provider	Part of Monitoring	Hootsuite	No	Yes
			BLANK											
OAK	F, T	BLANK	Inform	Not Objective	No Measure	PR/OPS	Zero	No	Significant Only	No	Yes	No	No	Yes
BWI	F, T	FS	Inform 2-Way Comm	Promo	Track Followers	PR-2	2%	Yes	Significant Only	Refer To Provider	Yes	Hootsuite/Tweetdeck	Yes	Yes
SDF	n/a	BLANK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No	n/a	No
LGB	F, T	Y	InformPromo	Promo	Track Followers, Likes	PR/OPS	<1%	Yes	Significant Only	Yes	Yes	Hootsuite/Tweetdeck	Yes	Yes
			BLANK											
BHM	F, T	FS	Inform 2-Way Comm	Not Objective	No Measure	PR	<5%	Part of Plan	Significant Only	No	No	Hootsuite/Tweetdeck	No	Not Sure
			BLANK											
BOI	F, T	BLANK	InformPromo	Promo	Track Followers, Likes/retweets	PR	<1%	Yes	Significant Only	Refer To Provider	No	Hootsuite/Tweetdeck	No	Yes
			BLANK											
MHT	F, T	BLANK	2-Way Comm	Inform	No Measure	PR	Zero	Part of Plan	No	No	No	No	No	Not Sure
			BLANK											
LIT	F, T	FL	Inform	Not Objective	Track time, feedback	PR/OPS	5%	Part of Plan	Yes	No	Yes	Hootsuite/Tweetdeck	No	Yes
			BLANK											
DSM	F, T	Y	Inform	Not Objective	Track Followers, Likes	PR	<1%	Part of Plan	Significant Only	Refer To Provider	Biz Hrs, Alerts	Yes	No	Yes
			BLANK											
MYR	n/a	BLANK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	No	n/a	No
			BLANK											

APPENDIX A

2013 Social Media Survey Participants

- ATL
- RNO
- BUF
- CAK
- PIT
- DFW
- DSM
- CMH
- MIA
- LAS
- BNA
- DEN
- SNA
- DAL
- CLE
- AUS
- MCI
- RSW
- STL
- SDF
- GRR
- ORD
- LGB
- ORF
- IAH
- OAK
- BHM
- ALB
- ROC
- LIT
- DTW
- JFK
- PVD
- PHL
- LAX
- JAX
- EUG
- SFO
- GEG
- MSY
- SEA
- SLC
- ANC
- PDX
- OKC
- BOI
- SAT
- SMF
- MEM
- SJC
- CLT
- FLL
- HPN
- TUL
- MDW
- RIC
- RDU
- HOU
- MSP
- TUS
- PHX
- MHT
- BDL
- LGA
- EWR
- ONT

APPENDIX B

2013 Social Media Survey Questions

1. How do you use social media?
2. How do you drive non-airline revenue if that is one of your objectives with social media?
3. How do you measure success against the hard number of return on investment in terms of time and resources?
4. What percentage of your overall budget is directed to social media?
5. Is social media considered a major component of your overall marketing plan?
6. Do you "push" information to customers regarding airline delays, or wait times in the security queue?
7. Does Airport Operations (or public relations) "push" information about weather or airport conditions?
8. Can a customer request a wheelchair, a jump start or inquire about lost baggage (or property) using social media?
9. Is there a concern among your department about the need to monitor social media to ensure you are informed in a timely fashion of a customer complaint or safety issue?
10. Do you use a social media management tool like Hootsuite or TweetDeck?
11. I am looking for your insight into the use of the medium and where the real value is in social media? Ultimately, the big question is it worth the investment in time and money?

APPENDIX C

Description of Social Media Platforms

Popular social media sites include Facebook, Twitter, YouTube, LinkedIn, Instagram, Pinterest, and Google+. Below are descriptions of the most common social media platforms.

Facebook (www.facebook.com): provides interactive content to foster engagement between users. Facebook requires users to register. After registration, users are assigned a "personal web page". The personal page is where users develop a personal profile, and can conduct a search for other registered Facebook users. Users can then share messages and images with other registered users or "friends". The site allows friends to receive automatic notifications when personal profiles are updated or new information is posted. In October 2012, Facebook surpassed one billion active users.

Twitter (www.twitter.com) is in essence a text message service that enables registered users to send and receive "tweets" that are limited to 140 characters. Twitter users can build an audience by gaining followers who choose to see the tweets sent by someone they are following. Unregistered users can only read tweets, but cannot send tweets. Tweets provide followers up-to-the-minute communication with other followers. Twitter currently lists 284 million active monthly users; 77% of Twitter accounts are outside the U.S.

YouTube (www.youtube.com) is a video-sharing service founded in February 2005. The website hosts user-generated videos, providing both professional and amateur content. YouTube has surpassed 1 billion active monthly users, and 100 hours of video are uploaded every minute.

Flickr (www.flickr.com), **Instagram** (www.instagram.com) and **Pinterest** (www.pinterest.com) are photo-sharing platforms that allow users to post and share images

across other social media platforms. The platforms allow for the organization of content into albums. Flickr has 92 million active monthly users.

Foursquare (https://foursquare.com/) is a location-based social networking website for mobile devices, such as smartphones or tablets. Users "check-in" at venues using a mobile website, text messaging, or a device specific application. It was designed as a way to meet friends who may be in the area. Foursquare has modified its format to "push" information to registered users about what Foursquare has gleaned about users' likes and dislikes. The application can push recommendations to users' devices based on user tastes and previous ratings for similar, places as well as from friends and experts users have indicated they trust most.

Google+ (https://plus.google.com) is a social platform that is built from of one's Google account. At first, it seems about the same as Facebook or Twitter, importing contacts and assigning them into circles of friends – Google+'s version of lists. After that, users can add curated circles based upon particular interests, entertainment, news, sports, etc. Google+ helps users connect with others who share their passions by creating communities, and helps users keep those interests separate from other circles. Google+ has 300 million active monthly users.

LinkedIn (www.linkedin.com): LinkedIn is an online social network for business professionals, designed specifically for professional networking, job searches, sales leads, and for making connections with potential business partners. Unlike most of the other social networks, LinkedIn does not focus on making friends or sharing media such as photos, videos and music. To start using LinkedIn, one must register and create a profile page, including education, job details and a summary. There are more than 75 million professionals registered on LinkedIn.

NOTES

[1] Bregman, S., (2012). Uses of social media in public transportation. (Report TCRP SB-20). Washington, D.C: Transit Cooperative Research Program. Preface.

[2] History of social networking. (2014, August 5). Digital Trends. Retrieved from http://www.digitaltrends.com/features/the-history-of-social-networking/ accessed 2014, August 31.

[3] Social Networking Fact Sheet. (2014 January) Pew Research Center. Retrieved from http://www.pewinternet.org/fact-sheets/social-networking-fact-sheet/

[4] Thompson, S,. (n.d.) Social media: How to deal with an angry passenger on Twitter. Retrieved from http://www.airport-world.com/news/general-news/2405-social-media-blog-q-a-with-heathrow-s-head-of-passenger-communications-part-1.html accessed 2014 March 7.

[5] Saurine, A., (2013, September 8). Australian airports behind on Twitter, Cheapflights.com study. Retrieved from www.news.com.au accessed 2013, September 7.

[6] Halper, N., (2012). Use of Social Media by Airports. Journal of Airline and airport Management. doi:10.3926.1/jairm9. 70.

[7] Ibid., 70

[8] Bregman, S., (2012). Uses of social media in public transportation. (Report TCRP SB-20). Washington, D.C: Transit Cooperative Research Program. 1-2

[9] Ibid., 41

[10] Ibid., 40

[11] Perry, L., Damian, O., & Lagu, A., (2014). Understanding the value of social media at airports for customer engagement. (Report ACRP 11-03). Washington, D.C: Transportation Research Board. 134.

[12] Perry, L., Damian, O., & Lagu, A., Power of social media for airports. (2013, July 15). Leigh Fisher. Retrieved from http://www.leighfisher.com/discover-whats-new/publications/focus-power-social-media-airports-0 accessed 2014, August 31.

[13] Bregman, S., (2012). Uses of social media in public transportation. (Report TCRP SB-20). Washington, D.C: Transit Cooperative Research Program.133-134. 40.

[14] Ibid., 135

[15] Siasoco, R., (2013). The History of the Internet. Retrieved from http://www.factmonster.com/ipka/.html accessed 2014 September 24.

[16] Social Networking Statistics. (2013 August 8). 2012 Statistic Brain Research Institute. Retrieved from http://www.statisticbrain.com/social-networking-statitics.com accessed 2013 October 29.

[17] Prigg, M., (n.d.) More than 11m teens have left Facebook since 2011 as messaging apps take over, new report claims. Retrieved from http://www.dailymail.co.uk/sciencetech/article-2540205/Have-11m-teens-left-Facebook-2011-New-report-claims-mass-exodus-continues-site-messaging-apps-over.html accessed 2013 March 10.

[18] Perry, L., Damian, O., & Lagu, A., Power of social media for airports. (2013, July 15). Leigh Fisher. Retrieved from http://www.leighfisher.com/discover-whats-new/publications/focus-power-social-media-airports-0 accessed 2014, August 31.

[19] Like button for the web. (n.d.). Facebook.com. Retrieved from https://developers.facebook.com/docs/plugins/like-button accessed 2015 January 27.

[20] Curtis, A., (2013). The brief history of social media. Retrieved from http://www2.uncp.edu/home/acurtis/NewMedia/SocialMedia/ accessed 2014, September 9.

[21] Siasoco, R., (2013). The History of the Internet. Retrieved from http://www.factmonster.com/ipka/.html accessed 2014 September 24

[22] Madrigal, A., (December 2014). The fall of Facebook. Atlantic Magazine, 34-35.

[23] Arnold, M,. (n.d.) The Twitter effect how social media changes the news narrative. Retrieved from http://www.pbs.org/mediashift/2011/06/the-twitter-effect-how-social-media-changes-the-news-narrative179/ accessed 2014 March 7.

[24] Siasoco, R., (2013). The History of the Internet. Retrieved from http://www.factmonster.com/ipka/.html accessed 2014 September 24.

[25] Venis, R., (2013). Social media study of 90 busiest U.S. Airports. Reno, NV: Reno-Tahoe Airport Authority.

[26] Bennett, S., (2013 April 11). Which Airlines and Airports are Taking Flight on Social Media. Social Times. Retrieved from http://www.mediabistro.com/alltwitter/social-airlines-airports_b39682

[27] Social Networking Statistics. (2013 August 8). 2012 Statistic Brain Research Institute. Retrieved from http://www.statisticbrain.com/social-networking-statitics.com accessed 2013 October 29.

[28] Venis, R., (2013). Social media study of 90 busiest U.S. Airports. Reno, NV: Reno-Tahoe Airport Authority.

[29] Patterson, M., (2015, January 26). Edgerank: A Guide to the Facebook News Feed Algorithm. Retrieved from http://sproutsocial.com/insights/facebook-news-feed-algorithm-guide/ accessed 2015, January 27.

[30] About Twitter. (n.d.). Twitter.com. Retrieved from https://about.twitter.com/company accessed 2015, January 27.

[31] Venis, R., (2013). Social media study of 90 busiest U.S. Airports. Reno, NV: Reno-Tahoe Airport Authority.

[32] Content Analysis. (n.d.). Methods of Conceptual Analysis. Colorado State University, The Writing Studio. Retrieved from http://writing.colostate.edu/guides/ accessed 2014, October 28.

[33] Ibid.

[34] Perry, L., Damian, O., & Lagu, A., (2014). Understanding the value of social media at airports for customer engagement. (Report ACRP 11-03). Washington, D.C. Transportation Research Board. 7.

[35] Loubeau, A., Box, S., & Cheng, A. (2012) 2012 ACI/IPI Parking Survey Results. IPI International Parking Institute. Retrieved from https://www.parking.org/media/127273 /2012 aci-ipi/aci/and/ipi/airportparking/survey-final/summary/report.pdf

[36] Enplanements at all commercial service airports CY13. (26 January 2015). FAA Online. Retrieved from http://www.faa.gov/airports/planning_capacity/ /passenger_allcargo_stats/passenger/media/cy13-commercial-service-enplanements.pdf

[37] Lindsey, G., (2014, March 18). LAWA after action review of response operations; Active Shooter incident and resulting airport disruption. Retrieved from http://www. lawa.org/uploadedFiles/LAX/LAWA/T3/After/Action/Report/March_18_2014.pdf 2

[38] Ibid., 2

[39] LAX_Official. (2013, November 1). Twitter.com. Retrieved from https://twitter.com /search?q=%23%40LAX_Official%20since%3A2013-11-01%20until%3A2013-11-02&src=typd

[40] Grady, M., (2013, November 1). After action review, LAX Terminal 3 active shooter. LAX World Airports review, Crisis Communication Response. Los Angeles, C.A. Los Angeles World Airports.

[41] Wireless Emergency Alerts (WEA). (n.d.). Federal Communications Commission. Retrieved from http://www.fcc.gov/guides/wireless-emergency-alerts-wea accessed 2014, November 11.

[42] Enplanements at all commercial service airports CY13. (26 January 2015). FAA Online. Retrieved from http://www.faa.gov/airports/planning_capacity/ /passenger_allcargo_stats/passenger/media/cy13-commercial-service-enplanements.pdf

[43] Asiana Airlines Flight 214. (n.d.) Retrieved 2013 October 10, from Wikipedia: http://en.wikipedia.org/wiki/Asiana_Airlines_Flight_214 accessed 2013, October 18.

[44] Asiana Flight 214 crash in SFO - Crises Management Case Study and Analysis. (2013, July 8). Retrieved from http://www.slideshare.net/shanxz/asiana-flight-214-crash-in-sfo-crises-management-case-study-and-analysis

[45] Ibid.

[46] Ibid.

[47] Schuler, C., (2014, February 5). After action review; Asiana 214 accident SFO. Presented at the Asiana/SFO After Action Conference. San Francisco, C.A. City of San Francisco.

[48] FlySFO,. (2013, July 6). Twitter..com. Retrieved from https://twitter.com /search?q=%23%40flysfo%20since%3A2013-07-06%20until%3A2013-07-07&src=typd

[49] Asiana Airlines Flight 214. (n.d.) Retrieved 2013 October 10, from Wikipedia: http://en.wikipedia.org/wiki/Asiana_Airlines_Flight_214 accessed 2013, October 18.

[50] Schuler, C., (2014, February 5). After action review; Asiana 214 accident SFO. Presented at the Asiana/SFO After Action Conference. San Francisco, C.A. City of San Francisco.

[51] Enplanements at all commercial service airports CY13. (26 January 2015). FAA Online. Retrieved from http://www.faa.gov/airports/planning_capacity/ /passenger_allcargo_stats/passenger/media/cy13-commercial-service-enplanements.pdf

[52] Hundreds of flights canceled as Thanksgiving storm hinders travelers. (2013, November 28). Foxnews.com. Retrieved from http://www.foxnews.com/ weather/ 2013/11/28/more-than-200-flights-cancelled-as-thanksgiving-storm-hinders-travelers/

[53] PITairport. (2013 November 25-29). Twitter.com. Retrieved from https://twitter.com /search?q=%23%40PITairport%20since%3A2013-11-25%20until%3A2013-11-29&src=typd

[54] Enplanements at all commercial service airports CY13. (26 January 2015). FAA Online. Retrieved from http://www.faa.gov/airports/planning_capacity/ /passenger_allcargo_stats/passenger/media/cy13-commercial-service-enplanements.pdf

[55] Schoettler, J., Gilliam, D., (2013, October 1). Two men arrested following Tuesday night JIA bomb scare - airline cancellations continue Wednesday AM. JAX Air News. Retrieved from http://jaxairnews.jacksonville.com/news/crime/2013-10-01/story/two-men-arrested-following-tuesday-night-jia-bomb-scare-airline

[56] JAXairport. (2013, October 1). Twitter.com. Retrieved from https://twitter.com/ search?q=%23%40jaxairport%20since%3A2013-10-01%20until%3A2013-10-02&src=typd

[57] JAX Airport social media: Bomb threat and terminal evacuation. (2013). Jacksonville Aviation Authority, PowerPoint.

[58] Ibid.

[59] Enplanements at all commercial service airports CY13. (26 January 2015). FAA Online. Retrieved from http://www.faa.gov/airports/planning_capacity/ /passenger_allcargo_stats/passenger/media/cy13-commercial-service-enplanements.pdf

[60] Enplanements at all commercial service airports CY13. (26 January 2015). FAA Online. Retrieved from http://www.faa.gov/airports/planning_capacity/ /passenger_allcargo_stats/passenger/media/cy13-commercial-service-enplanements.pdf

[61] CAKairport. (n.d.) Twitter.com. Retrieved from https://twitter.com /search?q=%23%40CAKairport%20since%3A2015-02-22%20until%3A2015-02-22&src=typd accessed 2015, January 27

[62] Halper, N., (2012) Use of Social Media by Airports. Journal of Airline and airport Management. doi:10.3926.1/jairm9. 76.

[63] Akron-Canton Airport Wins Social Media Award; Places 1st in Social Media Campaign. (2013, June 14). Bloomberg Business. Retrieved from http://www.bloomberg.com /article/2013-06-14/aIDxsudG3Nw0.html accessed 2014 November 11.

[64] Enplanements at all commercial service airports CY13. (26 January 2015). FAA Online. Retrieved from http://www.faa.gov/airports/planning_capacity/ /passenger_allcargo_stats/passenger/media/cy13-commercial-service-enplanements.pdf

[65] Felts, T., Vancour, V., & Stockton, J., (2014, August 21). After Action Review,2041 Broken Wing Triennial Exercise. Reno, N.V: The Reynolds School of Journalism and Center for Advanced Media Studies.

[66] RNOtest. (2014, May 29). Twitter.com. Retrieved from https://twitter.com /search?q=%23%40RNOtest%20since%3A2014-05-29%20until%3A2014-05-29&src=typd

[67] Felts, T., Vancour, V., & Stockton, J., (2014, August 21). After Action Review,2041 Broken Wing Triennial Exercise. Reno, N.V: The Reynolds School of Journalism and Center for Advanced Media Studies.

[68] Madrigal, A., (December 2014). The fall of Facebook. Atlantic Magazine, 34-35.

[69] Sterling, B., (2011, December 16). 42 major countries ranked by smartphone penetration rates. Wired.com. Retrieved from http://www.wired.com/2011/12/42-major-countries-ranked-by-smartphone-penetration-rates/

[70] Mobile Technology Fact Sheet. (2014 January) Pew Research Center. Retrieved from http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/

[71] Nigam, S., (2012, December 11). The Road Ahead for Airports and Social Media in 2013. Simpliflying. Retrieved from http://simpliflying.com/2012/the-road-ahead-for-airports-and-social-media-in-2013-real-time-customer-service-non-aeronautical-revenues-keys-to-success/ accessed in October 2013.

BIBLIOGRAPHY

About Twitter. (n.d.). Twitter.com. Retrieved from https://about.twitter.com/company accessed 2015, January 27.

Albergotti, R., (2014, February 4). Few Facebook users share daily. The Wall Street Journal.

Airport Social Media Outlook 2013/2014: More Airports Are Investing in Social Media. (n.d.) Retrieved from http:simpliflying.com/author/simpliflying/ accessed 2014, June 1.

Arnold, M,. (n.d.) The Twitter effect how social media changes the news narrative. Retrieved from http://www.pbs.org/mediashift/2011/06/the-twitter-effect-how-social-media-changes-the-news-narrative179/ accessed 2014 March 7.

Asiana Flight 214 crash in SFO - Crises Management Case Study and Analysis. (2013, July 8). Retrieved from http://www.slideshare.net/shanxz/asiana-flight-214-crash-in-sfo-crises-management-case-study-and-analysis

Asiana Airlines Flight 214. (n.d.) Retrieved 2013 October 10, from Wikipedia: http://en.wikipedia.org/wiki/Asiana_Airlines_Flight_214 2013, October 18.

Beyond promotion: Twitter tales from Richmond (RIC). (n.d.) Retrieved from http://events.aaae.org/sites/120909/assets/images/02_Bell_RIC_FINAL.pdf accessed 2013 March 28.

Bregman, S., (2012). Uses of social media in public transportation. (Report TCRP SB-20). Washington, D.C: Transit Cooperative Research Program.

Content Analysis. (n.d.). Methods of Conceptual Analysis. Colorado State University, The Writing Studio. Retrieved from http://writing.colostate.edu/guides/ accessed 2014, October 28.

Curtis, A., (2013). The brief history of social media. Retrieved from http://www2.uncp.edu/home/acurtis/NewMedia/SocialMedia/ accessed 2014, September 9.

Definition - What does Social Platform mean? (n.d.) Retrieved from http://www.techopedia.com/ accessed 2014, November 11.

Felts, T., Vancour, V., & Stockton, J., (2014, August 21). After Action Review,2041 Broken Wing Triennial Exercise. Reno, N.V: The Reynolds School of Journalism and Center for Advanced Media Studies.

FlySFO,. (2013, July 6). Twitter..com. Retrieved from https://twitter.com/search?q=%23%40flysfo%20since%3A2013-07-06%20until%3A2013-07-07&src=typd

Fox, L., (2012). Airports plan social media spending boost. Simplifyling. Retrieved from http://www.tnooz.com/article/airports-plan-social-media-spending-boost-infographic/ accessed 2013 October 4.

Grady, M., (2013, November 1). After action review, LAX Terminal 3 active shooter. LAX World Airports review, Crisis Communication Response. Los Angeles, C.A: Los Angeles World Airports.

Halper, N., (2012) Use of Social Media by Airports. Journal of Airline and airport Management. doi:10.3926.1/jairm9

History of social networking. (2014, August 5). Digital Trends. Retrieved from http://www.digitaltrends.com/features/the-history-of-social-networking/ accessed 2014, August 31.

How are airports using social media? (2013) DKMA. Retrieved from http://www.dkma.com /en/images/downloads/managingcustomer/How%20airports%20are%20using%20social %20media.pdf accessed 2013 October 10.

Hundreds of flights canceled as Thanksgiving storm hinders travelers. (2013, November 28). Foxnews.com. Retrieved from http://www.foxnews.com/weather/2013/11/28/more-than-200-flights-cancelled-as-thanksgiving-storm-hinders-travelers/

JAX Airport social media: Bomb threat and terminal evacuation. (2013). Jacksonville Aviation Authority, PowerPoint.

Koh, Y., (2014 February 10). Twitter's biggest challenge is indifference among Internet users. The Wall Street Journal.

LAX_Official. (2013, November 1). Twitter.com. Retrieved from https://twitter.com /search?q=%23%40LAX_Official%20since%3A2013-11-01%20until%3A2013-11-02&src=typd

Lindsey, G., (2014, March 18). LAWA after action review of response operations; Active Shooter incident and resulting airport disruption. Retrieved from http://www.lawa.org/uploadedFiles /LAX/LAWA/T3/After/Action/Report/March_18_2014.pdf

Loubeau,A., Box, S., & Cheng, A. (2012) 2012 ACI/IPI Parking Survey Results. IPI International Parking Institute. Retrieved from https://www.parking.org/media/127273/2012/aci-ipi/aci/and/ipi/airport/parking/survey--final/summary/report.pdf

Madrigal, A., (December 2014). The fall of Facebook. Atlantic Magazine, 34-35.

Manalo, J., (n.d.) The 5 International airports making friends the fastest on Facebook. Retrieved from http://skift.com/2014/05/13/the-5-international-airports-making-friends-the-fastest-on-facebook/ accessed 2014, May 13.

McGoldrick B., (n.d.). Social vs. traditional media. FTI Consulting. Retrieved from http://www.fticonsulting.com/global2/critical-thinking/fti-journal/social-vs-traditional-media.aspx accessed 2013 October 4.

The National Incident Management System (NIMS). (n.d.) Retrieved from https://www.fema.gov /national-incident-management-system accessed 2014 November 11.

Natalie B., (2013, April 25). How to measure your social media return on investment. Forbes.com. Retrieved from http://www.forbes.com/sites/capitalonespark/2013/ /04/25/how-to-measure-your-social-media-return-on-investment/

Newman, N., (2009) The rise of social media and its impact on mainstream journalism. Reuters Institute for the Study of Journalism.

Nigam, S., (2012, December 11). The Road Ahead for Airports and Social Media in 2013. Simpliflying. Retrieved from http://simpliflying.com/2012/the-road-ahead-for-airports-and-social-media-in-2013-real-time-customer-service-non-aeronautical-revenues-keys-to-success/ accessed in October 2013.

Pasztor, A., (2013, August 26). Friction Escalates in Air Crash Probe". The Wall Street Journal.

Patterson, M., (2015, January 26). Edgerank: A Guide to the Facebook News Feed Algorithm. Retrieved from http://sproutsocial.com/insights/facebook-news-feed-algorithm-guide/ accessed 2015, January 27.

Perry, L., (n.d.) The Power of Social Media for Airports. Retrieved from www.leighfisher.com/ focus_power-of-social-media-for-airports.pdf accessed 2013 October 4.

Perry, L., Damian, O., & Lagu, A., (2014). Understanding the value of social media at airports for customer engagement. (Report ACRP 11-03). Washington, D.C: Transportation Research Board.

Perry, L., Damian, O., & Lagu, A., Power of social media for airports. (2013, July 15). Leigh Fisher. Retrieved from http://www.leighfisher.com/discover-whats-new/publications/focus-power-social-media-airports-0 accessed 2014, August 31.

PITairport. (2013 November 25-29). Twitter.com. Retrieved from https://twitter.com /search?q=%23%40PITairport%20since%3A2013-11-25%20until%3A2013-11-29&src=typd

Prigg, M., (n.d.) More than 11m teens have left Facebook since 2011 as messaging apps take over, new report claims. Retrieved from http://www.dailymail.co.uk /sciencetech/article-2540205/Have-11m-teens-left-Facebook-2011-New-report-claims-mass-exodus-continues-site-messaging-apps-over.html accessed 2013 March 10.

Ramsey, R. (2013, May 30). Battle of the dashboards: TweetDeck vs. Hootsuite. Retrieved from http://www.techzone360.com/topics/techzone/articles/2013/05/30/340048-battle-the-dashboards-tweetdeck-vs-hootsuite.htm

Sass, E., ("Social Media Post Gets Shorter During Major Events." Retrieved from http://www.mediapost.com/publications/article/220445/social-media-posts-get-shorter-during-major-events.html accessed 2014 March 7.

Saurine, A., (2013, September 8). Australian airports behind on Twitter, Cheapflights.com study. Retrieved from www.news.com.au accessed 2013, September 7.

Scanlan, D. (2013, October 2). JIA scare: Suspect said 'I got a bomb;' device was luggage scale, cellphone, remote-control. JAX Air News. Retrieved from http://jaxairnews .jacksonville.com/news/crime/2013-10-02/story/jia-scare-suspect-said-i-got-bomb-device-was-luggage-scale-cellphone

Schoettler, J., Gilliam, D., (2013, October 1). Two men arrested following Tuesday night JIA bomb scare - airline cancellations continue Wednesday AM. JAX Air News. Retrieved from http://jaxairnews.jacksonville.com/news/crime/2013-10-01/story/two-men-arrested-following-tuesday-night-jia-bomb-scare-airline

Schuler, C., (2014, February 5). After action review; Asiana 214 accident SFO. Presented at the Asiana/SFO After Action Conference. San Francisco, C.A: City of San Francisco.

Siasoco, R., (2013). The History of the Internet. Retrieved from http://www.factmonster.com /ipka/.html accessed 2014 September 24.

Social Networking Statistics. (2013 August 8). 2012 Statistic Brain Research Institute. Retrieved from http://www.statisticbrain.com/social-networking-statitics.com accessed 2013 October 29.

Sterling, B., (2011, December 16). 42 major countries ranked by smartphone penetration rates. Wired.com. Retrieved from http://www.wired.com/2011/12/42-major-countries-ranked-by-smartphone-penetration-rates/

Strickland, J., (2008, January 11). Why is the Google algorithm so important? HowStuffWorks.com. Retrieved from http://computer.howstuffworks.com/google-algorithm.htm

Thompson, S,. (n.d.) Social media: How to deal with an angry passenger on Twitter. Retrieved from http://www.airport-world.com/news/general-news/2405-social-media-blog-q-a-with-heathrow-s-head-of-passenger-communications-part-1.html accessed 2014 March 7.

Venis, R., (2013). Social media study of 90 busiest U.S. Airports. Reno, NV: Reno-Tahoe Airport Authority.

Winbourne, J., 24 September 2013. Social Media and Public Safety Communications - Jakarta Police Provide a New Approach. Public Safety Communications. Retrieved from http://psc.apcointl.org/2013/09/24/social-media-and-public-safety-communications-jakarta-police-provide-a-new-approach/ accessed 4 October 2013.

Wireless Emergency Alerts (WEA). (n.d.). Federal Communications Commission. Retrieved from http://www.fcc.gov/guides/wireless-emergency-alerts-wea accessed 2014, November 11.

10 Examples of Social Media Command Centers. (2012, December 3). Salesforce Marketing Cloud. Retrieved from http://pt.slideshare.net/marketingcloud/10-examples-of-social-media-command-centers accessed 2013, May 6.