

SOCIAL MEDIA IN POLICING: A STUDY OF DALLAS-FORT WORTH AREA CITY

POLICE DEPARTMENTS

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Dissertation Prepared for the Degree of

DOCTOR OF PHILOSOPHY

University of North Texas

AUGUST 2013

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Fuat Altunbas Social Media in Policing: A Study of Dallas-Fort Worth Area City Police Departments. Doctor of Philosophy (Information Science), August 2013, 169 pp., 5 tables, 37 figures, 124 references, 87 titles.

Social media offers numerous opportunities to companies, organizations and government agencies to communicate with people outside their organization, to promote their interests and to better serve their customers, or as in the case with government agencies, to better serve their citizens. However, little is known about how police departments in particular use social media. This research study explores why police departments use social media, how they manage their social media tools, and the problems and challenges experienced as they use social media.

This qualitative study is largely guided by grounded theory. The data were collected from a study population using local police departments in the Dallas-Fort worth (DFW) area principal cities using both individual interviews with police departments' social media officers and observations of these departments' online social media tools (in particular, Facebook and Twitter). This study has shown that the DFW area city police departments are using social media quite extensively to keep the public informed and often for investigative purposes. There are some success factors to adopting and using these tools, such as the motivation of department staff and their benefits, successful implementation of the tools, the simplicity of using tools and that it is absolutely free.

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By

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ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my advisor Dr. Brain O'Connor for the continuous support of my Ph.D study and research, for his patience, motivation, enthusiasm, and immense knowledge. His guidance helped me in all the time of research and writing of this thesis. I could not have imagined having a better advisor and mentor for my Ph.D study. Besides my advisor, I would like to thank the rest of my thesis committee: Dr. Oyarce and Dr. Warren, for their encouragement and insightful comments. I especially would like to express my thanks to Lauri Stevens and Melinda Gutierrez for opening my eyes to the ideas of social media and policing. Thanks are also extended to my colleague Ahmet who helped me in the data collection, translation, and analysis processes. Special thanks are extended to Thomas Youngblood and Ginni Beam who have been so helpful during the editing process. In addition, thanks are extended to participants of the study who spent their valuable time joining the interviews. Finally, I would like to thank my family and friends for their support and encouragement on this journey

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CHAPTER 1

INTRODUCTION

Introduction

A robbery occurs at a local business. When the robbery occurs, the police department immediately sends out a Twitter announcement notifying subscribers of the crime and asking them to be on the lookout for the suspects. Intelligence analysts begin checking other social media sites for subscribers who may have “checked in” near the crime. They find several people have checked in at businesses in the area using Facebook, Yelp and Four Square. Analysts send text messages to these people, who are immediately on the lookout for the suspects. Several quickly report suspicious activity and take pictures of a vehicle fleeing the scene, uploading them to the Department’s Facebook page. Analysts broadcast descriptions of the vehicle to responding officers, and the vehicle is located leaving the mall. The suspects are arrested 4with stolen property from the robbery within minutes of the crime. (Henton, 2012, p.3).

This fictional scenario is designed to illustrate how social media is effective when the police work with citizens to solve a crime and catch criminals.

In recent years, significantly increased in the use of social media has changed both personal and organizational communication. Social media offers numerous opportunities to companies, organizations as well as government agencies to communicate people, to promote them and to better serve their citizens, and they are becoming among the most popular online tools. This led Lincoln (2009) to conclude “Social media gives a potential power to ordinary people that they have never enjoyed before in the history of mankind” (p. 10).

As of May 2013, the online social networking application Facebook had more than 1.11 billion active users in the world and more than 160 million in the United States, which makes the country with the most Facebook users (Socailbakers, 2013), meaning more than half of Americans are using Facebook. According to Facebook official statistics, more than 200 mobile operators supported Facebook mobile products across the world and more than 500 million mobile users accessed their account via mobile phone during April 2012 (Facebook, 2013). At the same time, there were more than 500 million active Twitter users around the world, and 11 new accounts created every second over May 2013 (Twitter, 2013). Another important social media tool, YouTube, celebrated its eighth birthday on May 2013 and also had amazing statistics. I had 1 billion active monthly users and people watched 4 billion videos per day, and every 24 seconds 24 hours of video were uploaded. These statistics represent a significant rise from the foundation of the social media tools to today. According to these statistics, it is easy to say that social media is a new trend for companies, governments, and many organizations use to reach their customers, employees, citizens and members. The rapidly changing environment of social media gives them an opportunity to make new contacts, and it has illuminated the need for us all to think faster, more transparently and more openly (Greenberg, 2009). Eyrich, Padman, and Sweetser (2008) imply that “the majority of public relations professionals state that the use of communication technology has made their job easier by expediting the circulation of information to reach broader audiences” (p.412). In this context, social media tools are becoming increasingly important for both profit and non-profit organizations. Increasing interest in using social media technologies has changed the way communities use the internet. Many social services, business executives, and organizations have begun to recognize the importance of social media tools and are now taking advantage of them.

These benefits should translate well for use by police departments. Changes in patterns of technology use have led to changes in policing. In this perspective, social media is becoming an important tool for law enforcement agencies as well. Differing from traditional media, social media enables police departments to communicate with their citizens in real time via multiple channels and with no costs. In addition, two-way communications while using social media, give an opportunity to receive immediate feedback from the followers.

Many police departments have Facebook pages, YouTube channels, and Twitter accounts as officers communicate in digital age. These tools are used not only to fight internet-related crimes but also to solve street crime by getting feedback from the fans (Cohen, 2010). Social media's role in policing is growing. It allows police better engagement and interaction with the citizens by promoting better contact and providing two-way communications. Departments use these tools for investigations because social media is now an essential investigative tool for seeking evidence or information about suspects, wanted persons, missing persons and gang cases. In addition, police use social media as a crime information tool for both distributing information and soliciting tips. Additionally, it has used for crime prevention. It is well known that crime prevention is one of the main aims of all police departments. Many departments are exploiting the benefits of social media to inform their citizens on crime prevention tactics and useful tips. Police also monitor social media before, during and after crises or major emergencies in order to update citizens with accurate information, post safeties tips and communicate with victims.

Social media has a few challenges and barriers for police departments as well. The site administrators cannot easily moderate people's posts and comments because it is almost immediate and unfiltered. Social media use also introduces privacy and security concerns. Police

use of social media gives many opportunities but at the same time raises concerns about privacy and security.

With social media's easy integration, most people know how to use social media platforms, and widespread coverage of these tools increase the usage among the police departments. However, for some reasons, many departments could not use these tools effectively.

Here, the researcher studies the use of social media by major police departments in the Dallas-Fort worth (DFW) Metropolitan Area. With a population of more than 6 million, DFW is the largest metropolitan area in the South and, the fourth largest in the United States (Census.gov, 2011). Some cities like Dallas, Fort Worth and, Arlington, are major urban cities, while others are medium-sized and smaller cities. The researcher chose police departments in principal cities with more than 100,000 inhabitants. These are Dallas, Fort Worth, Arlington, Plano, Garland, Irving, Grand, Prairie, Mesquite Carrollton, Denton, McKinney, Frisco and Richardson. The DFW area covers a broad range of police department types with successful social media usage. There are a few examples of police departments that have successfully implemented and utilized social media, including those in Dallas, Fort Worth, Arlington Police Departments. The Dallas Police Department was the first city in the country, in 2001 to hire a person as a social media officer and according to the International Association of Chiefs of Police (IACP). They have the fourth highest number of Facebook followers in the U.S. at 10,778. Similarly, the Arlington Police Department won the 2012 Best of Texas Award from the Center for Digital Government because of their innovative use of Twitter (myarlingtontx.com, 2012). In 2012 the Denton Police Department has started to post their most wanted to Facebook allowing them to make new several arrests soon after (Associated Press, 2012).

Definitions

Social media: Social media is a term defined by Andreas Kaplan and Michael Haenlein as ‘a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content’ (Kaplan & Haenlein, 2010). It is, however important to understand that the term ‘social media’ is an umbrella term including Web 2.0, social technology, digital media and new media; which are often used interchangeably. One simple but brief definition of social media mentioned by Jue, Marr, and Kassotakis is that (2010) “the various electronic tools available to help accelerate and improve our ability to connect, communicate, and collaborate” (p. 44).

Facebook : A social media tool founded by Mark Zuckerberg and his college roommates in 2004. By March 2013, Facebook was the most prominent social media service with monthly active users. According to Facebook's site, it has over 1.11 billion users around the world. Facebook allows users to create a personal profile, connect with friends upload photos and video, send messages and receive comments and feedback from the connected friends. Facebook also allows users to create a page to represent private and non-private organizations as well as government agencies in order to distribute information.

Twitter: A micro blogging site that allows users to share and receive information through short messages, of up to 140 characters, called “tweets”. Additionally, tweeter users can access all the public tweets, even the people who are un-subscribing them on Twitter. It was created and launched by Jack Dorsey in July 2006. By March 2013, twitter has over 500 million active users with 50 million tweets sent per day by users.

YouTube: A content community video sharing website created by three PayPal employees, Steve Chen, Chad Hurley, and Jawed Karim, in February 2005. YouTube allows users to upload,

watch, share, and comment on originally created videos. According to YouTube, during 2011, it has 1 billion users with 4 billion views per day.

Nixle: A community information service that connects residents with police departments.

Citizens can use Nixle to receive information from departments by text message, email, over the Web and by mobile application. It was founded in 2007 and by September 7, 2012 more than 4600 government agencies throughout the United States used Nixle.

Yelp: A user review based social networking website. Yelp provides online local search capabilities for users to find, share, and provide their own reviews of places to eat, drink, shop, relax and play. By March 2013 it has 78 million users with 30 million reviews.

Foursquare: A local-based social networking website for mobile devices. This online application allows users' to post their location to friends via "check in". Foursquare was created by Dennis Crowley and Naveen Selvadurai and launched in Austin, Texas in March 2009. By March 2013, it has 33 million with 1.3 million businesses.

Department: It represents law enforcement agency in the city, under the control of a municipal government.

Division: It is the usual term of units in the municipal police departments. Police departments divide into several key divisions, usually commanded by sergeant or lieutenant.

Statement of the Research Problem

Social media tools are currently by used many police departments in the US. Not only to communicate police information to the public, but also to help solve crime that occurring in local communities. Many police departments are still trying to figure social media out because there are so few resources to implement it. In this context, the Deputy Chief Constable of the National Policing Improvement Agency (NPIA) Gordon Scobie, argues "if we don't engage with people

via social media they will move on without us and we will miss the opportunity to influence them” (NPJA, 2010). Scobie goes on to connect the use of social media with public engagement and confidence. It is fair to say that policing agencies have a growing interest in the potential of social media, especially around public engagement.

An increasing number of police departments are embracing social media tools across the country. According to a study conducted on August 2012 by the International Association of Chiefs of Police (IACP), 92.4% of agencies have used social media tools (IACP, 2012).

Although social media is being used more and more by police departments in the US, many of them could not use these tools efficiently because they were unable to adapt to them effectively. Another result from survey was that 56.3% of departments currently not using social media are considering its adoption. As can be seen, adoption of social media by law enforcement is an essential step for police officers to use these tools. Although there are many studies about implementing social media in companies and public organizations, there appear to be few studies examining police departments’ social media adoption. Thus, there is only limited empirical knowledge regarding how police departments use social media and even less research on its integration. This study explored how widespread use of social media tools, how social media improves police-community relations, for what purposes departments are using these tools, how police departments are running their social media tools, and what challenges are encountered when departments use social media tools among the major police departments in the DFW area. This study will be a pioneer study for future usage. Based on its findings, the current working policies in police departments might be adjusted regarding using social media in policing. Finally, this study will also be a reference for future studies for researchers who want to examine adoption of using social media in policing.

Significant of the Study

Social media tools are new weapons in fighting crime because they are easier, faster, and more effective. Many police departments use social media, while others are ready but do not know how to adopt to using these tools. This study explores the factors affecting police departments' adoption on using social media tools in the DFW area. This study is also beneficial to the officers and managers in police departments when so they might employ social media tools more effectively. Moreover, this research provides recommendations on police departments' social media usage and its adoption.

Research Questions

The researcher used a grounded theory approach in order to better understand the social media usage of DFW police departments. The three research questions formulated for this study are:

Q1. What are the driving factors of department users that encourage the choice to adopt and use social media?

Q2.How are the police departments managing their social media tools?

Q3.What are the barriers that could slow the adoption of social media?

Summary of the Chapter one and Organization of the rest of the Paper

In summary, this introductory chapter presented the importance of social media for companies, organizations and government agencies and discussed the significant of using social media for policing before moving on to definitions, statement of the research problem, significance of the study and research questions.

The rest of the paper is organized as follows:

Chapter two is the review of the literatures with a discussion of current research including sections on social media adoption, social media and government, social media and policing, social media, transparency and fighting corruption.

Chapter three outlines the methodology of this research study, which includes introduction, appropriateness of design, research questions, population, sampling, informed consent, confidentiality, geographic location, data collection, data coding and analysis, validity and reliability, ethical consideration.

Chapter four presents sections, covering the analysis the interviews and online observations and discusses the research findings derived from that analysis. The results were divided into two sections. The first section dealt with tag clouds and demographics from the interviews of twelve respondents. The second section dealt with analysis and discussion of data from the online-observations.

Chapter five outlines the researcher's conclusions from this study and discusses implications related to the adoption, management and challenges of using social media in the police force. In addition, it provides the results from the analysis of the data on social media for policing and suggestions for future research on social media for policing. It is also presents the limitations of the study in this chapter.

CHAPTER 2

LITERATURE REVIEW

Introduction

Chapter two provides a comprehensive review of the relevant literature and research related to social media in general and then narrowing in scope to using social media in policing. The chapter was divided into sections that include (a) social media adoption, (b) social media and government, (c) social media and policing, and (d) transparency and its effect on fighting corruption.

The literature review begins with an overview of social media adoption. Following the social media adoption, how government agencies and police departments are using social media is discussed. Then the impact of transparency, promoting with social media, on fighting corruption is also argued. The chapter concludes with a summary of the findings.

Social Media Adoption

From government agencies to private sector, social media is the new communication landscape and in reaction to the increase of citizen's adoption of that technology, government agencies are entering the social media realm in greater numbers as well (Magro, 2012). The amazing growth in using social media tools is recognized by companies, industries and organizations everywhere. Many try to adopt these tools for internal use and some successfully use them to increase productivity. According to Hanna, Rohm, and Crittenden (2011), many companies recognize the importance of using social media tools, but they do not know exactly how to effectively deploy them. The widespread use of social media requires knowing how to use these tools and to do so with their target audience in mind (Curtis et. al., 2010). In addition,

Kietzmann et al., (2011) imply that many organizations do not want to use social media because they do not know how to adopt it.

The private sector all has ready engaged these technologies and has considerable experience using these tools. In contrast the public sector's the adoption of social media tools is a relatively new, and because of the internally focused objectives-such as their service-delivery mentality, bureaucratic barriers, and slowness to change- it takes time to progress (Serrat, 2010). Furthermore, according to the Report of the Government 2.0 Taskforce's report in 2008, security anxieties were the main obstacle to adopting new technologies in the public sector.

The study Markova (2008) examined the adoption of new technologies in government agencies. It was found that, staff members must understand the need for these technologies and managers must be forced to adapt to the employees needs that arise through their use. In addition, findings from this study detected that building trust is the main issue keeping many from adopting new technologies (Markova, 2008). Other studies (Gilbert et al., 2004; Wargin & Dobiey, 2001) revealed that lacking of the skills to make use of them and the willingness to try them influence the choice to adopt social media tools.

Both researchers and scholars have understood the importance of the adoption of social media. Alqahtani, Watson, and Partridge (2010) imply that the factors that affect the adoption of the new technology play an essential role in successfully employing it. Many researchers (DiMicco et al. 2008; Hester & Scott 2008; Millen Feinberg & Kerr 2006) have explored the user adoption of social media tools but less study has been investigated about users' perception about its adoption in government organizations.

There are various external and internal barriers in the adoption of social media in organizations. Papworth (2009) points out that one of the important internal challenges is

controlling it for company use only. According to his study generally, workers generally use social media for private use rather than for organizational purposes. Corporate culture is another internal barrier to the adoption and use of social media (Meri & Miia, 2011). Fuchs-Kittowski et al. (2009) imply that social media officers in the organizations see corporate culture as more than a predominant organizational culture because they have often questioned employee's behavior related to using social media for their work.

The image of the company and its relationship with other organizations are some of the important external obstacles to the adoption and use of social media in organizations (Meri & Miia, 2011). According to Fuchs-Kittowski et al. (2009) lack of privacy and perceived loss of control over employee use of social media can cause damage to company's image. Similarly, Schleicher and Anderson (2011) state that large amounts of information are easily spread to the community through social media therefore, preventing the creation of misinformation and making rumors is crucial in these platforms and also harmful for the companies. In this context, social media is presents many challenges to organizations.

System problems (such as insufficient system resources, incompatible databases) and bureaucratic problems (such as inefficient manager and agency guidelines) are major challenges in the social media adoption process (Li, 2010). Managers need to take an active role in the adoption process in order to effectively implement using social media in an organization. According to Li (2010), managers are not ready to embrace implementation of social media into their companies. Similarly, Farhoomand et al. (2000) have implied lack of management commitment seriously affected the adoption process and is often cited as the reason for failure organizations.

Gharawi and his friends interviewed 32 government professionals in order to explore the challenges and opportunities of social media adoption in government in their study. They found four main challenges facing government organizations (Gharawi et al., 2010):

- Engaging community: Social media platforms give opportunities to engage all citizens from accessing younger generations to reaching disabled people.
- Better quality service: Social media platforms can be used to improve public safety, to gain more support from the community, to reduce rumors and to increase information dissemination.
- Convenient workplace: Social media platforms give an opportunity to government departments in order to form virtual communities and, to create competitive advantages for new and talented staff members.
- Cost reducing: Social media platforms can reduce costs for several organizational activities from communication to travel.

In addition to challenges in the adoption process, they also explored some issues and concerns like security, privacy, ease of access, awareness, the need for technical and training resources. Gharawi and his friends imply that to deal with these kinds of challenges, organizations should create social media policies and guidelines.

Kelleher and Sweetser (2012) mention that there are several factors that positively affecting the adoption of using social media in organizations such as low cost, efficiency, free two-way communication between agencies and their publics. They also stated that it is a good way to reach a younger audience that is not as easy to reach through traditional media. However, social media does not a wholly positive influence on the organizations. The main negative side effect of using social media is that to control the information's dissemination is often reduced due

to over-crowded communication channels, making it is harder to manage and access needed information (Kelleher & Sweetser, 2012).

Creating a Policy

Mergel, Mugar, and Jarrahi (2012) state that at the organizational level it is important “to understand the impact of organizational norms, policies, strategies and practices that shape adoption strategies” (p 152). They underline the importance a social media strategy to implement social media practices into organizations. In addition to implementation of strategies, the authors also look at the users' own experience with the technology and its degree of use. Policy and procedure is one of the keys to adoption process. In this context, organizations are becoming more aware of the importance of policy and procedures for using social media. According to Mergel, Mugar, and Jarrahi (2012), there are two different ways to implement social media policy. One is creating a social media policy before starting to use it; the other is, beginning using social media and then, in the course of experiment and mistake, generate and applies policies. For the authors, generally organizations favor caution except for early adopters and innovators. The latter prefer to use of social media from an experiment and mistake position rather than starting with policy.

Due to the increasing use of social media by organizations, it is crucial to implemented effective social media policy to protect personal and professional reputations as well as for privacy and security guidelines (Lehavot, Barnett, & Powers, 2010). Social media policy is crucial for all levels and branches of agencies because it encourages online participation by both agency users and followers. According to some researches (Wandel, 2009), security and privacy issues are two of the main concerns for government organizational social media usage. Many agencies have developed and implemented social media policies, while other agencies still do not

have any or have an inadequate and passive social media guidelines. The use of social media without policy in the work place is a recipe for disaster. In this context, the implementation of effective policies and codes of conducts as well as integrated guidelines to support such rules is required in order to increase ethical behavior and protect agencies (Kelley & Chang, 2007). But many organizations do not know how to create effective social media policies, therefore, instead of effective social media usage, these organizations prohibit using social media tools or they restrict their access (Chi, 2011). Because of these kinds of concerns many organizations avoid rather than use social media technologies. As social media tools are becoming more and more popular in society, agencies cannot continue to ignore its potential (Chi, 2011).

As described above, the necessity of creating and developing social media policy for organizations is inevitable. Yet, how can agencies to implement a policy that meets the requirements for their workplace environment and their users' behaviors? According to Harris (2011), a one-size social media policy cannot cover all things. Therefore, organizations should have separate social media policies one for employees using social media for their work and one for employees using social media in their private lives.

According to Edwards (1980), policy implementation:

“The stage of policymaking the establishment of a policy and the consequences of the policy for the people whom it affects. If a policy is inappropriate. and cannot alleviate the problem for which it was designed, it will probably be a failure no matter how well it is implemented. But even a brilliant policy poorly implanted may fail to achieve the goals of its designers” (p.1).

Thus, the implementation of a policy is a complex and risky issue.

Before creating social media policy agencies should ask (Paula, 2011):

- Is the information being placed on the social media site the official business record, or is it a copy with the official record being retained in another location?
- Who will own the information being posted?
- What retention classification will be assigned?
- How will content be managed over its life cycle?
- How will postings subject to legal hold be preserved?
- Who will be responsible for monitoring the site for changes in content?
- What are the terms and conditions of the social media sites being used?
- Do these sites retain information indefinitely?
- How will the sites respond to requests for information resulting from investigations or during litigation?
- How will the sites respond to misuse of their site by the posting of inappropriate content?

In another study, Godwin and his friends found an answer for how to make the best use of social media tools in government agencies. Their suggestions are based on the social media officers' experience in the Federal Government and interviews with web managers across the country (Godwin et al., 2010). As in previous studies, they stress that although some departments are using social media platforms with perfect performance, some of them have not used these platforms effectively because of several barriers like lack of resources, lack of an effective strategy, privacy issues, cultural and legal issues and being accessible to the entire community.

Social Media and Government

Internet users are spending more time on social media tools than any other type of website (Perlman 2012) and continue to spend more and more time on these tools. From this context, social media tools are becoming increasingly essential for the community in their daily

life activities. Therefore, with the spread of using social media in the community a growing number of governmental departments have embraced the use of social media tools for governmental purposes and to offer better services to their citizens. (Markova, 2008; Perlman 2012; Panagiotopoulos & Sams, 2012). Thus “ governments see these new social media tools as ways to deliver better customer services, create better designs more cheaply, and provide better oversight and regulation” (Pentland, 2012, p. 146). For these reasons, government agencies are embracing social media to better interaction with the community, promoting transparency and accessibility (Falco, 2011). These interactions includes using social media as a communications channel, for posting new stories and information, for promoting specific events and campaigns, for engaging in forums and blogs, as well as for emergency management, public safety, policing, traffic management and numerous other activities (Panagiotopoulos & Sams, 2012; Perlman 2012). According to Public Technology Institute survey, 72 percent of Chief Information Officers are using or planned on using Facebook or Twitter for improve their ability to their job (Trenker, 2010).

The power of social media is fundamentally changing the relationship between community and government agencies (Hand & Ching, 2011). In addition providing a line of communication between residents and government, social media also provides a forum for exchanging ideas between resident to resident. Community participation in government issues brings greater benefits is effective in building strong social networks ((Hand & Ching, 2011). Moreover, Hand and Ching (2011) stress that using social media in government:

“Can offer an understanding on both sides of the equation: citizens may view government as something that is separate and remote from their everyday lives, and public administrators may view citizens as an abstract representation of a

group of disparate and distant voices rather than having direct knowledge”
(p.364).

The use of social media by government agencies offers many opportunities and exciting possibilities. Many government agencies are now focused on social media for demographic participation,(Bertot, Jaeger, Munson, & Glaisyer, 2010) public safety and emergency management issues (Perlman, 2012; Oh et al. 2010; Crowe, 2010), police and community relations (Heverin, Zach 2010; Crompton, 2011; Omand, Bartlett & Miller, 2012) improving public confidence (Copitch & Fox, 2010), facilitation of crime prevention, (Morselli & Hetu, 2011) sharing information and knowledge (Lindsay, Cooke & Jackson, 2010) for criminal, communication and investigation issues (Mawby, 2010; Wheeler & Keleher, 2011; Frank, Cheng & Pun, 2011; Sakiyama, Shaffer & Lieberman, 2011) riots (Tonkin, Pfeiffer & Tourte, 2012; Clarke, 2012), digital communication (FBI Law Enforcement Bulletin, 2010) transportation management (Perlman, 2012; Murray & Lewis, 2011), structure and environmental management (Ratti and Townsend, 2011) elections and electoral campaigns (Perlman, 2012) and public health experts (Signorini, Segre & Polgreen, 2012).

According to Magro (as cited in Dadashzadeh, 2010), government needs a different approach from the private sector in order to successfully implement the social media because the structure of the government is more complex with more responsibilities from the government toward their social media users and followers. Government agencies need to create and put into practice their own guidelines for the use of social media. With an appropriate guideline, users may feel encouraged to approved use social media tools. For this reason, government social media use should have clear user guideline and should be more transparent (Magro, 2012). In addition, Charalabis and Loukis (2011) recommended that governments need to change their

structure and create a new organizational formation to remove barriers. With a more specific expression, hierarchy, the culture and control structure has got to change.

Hansen, Bertot and Jaeger (2012) focused on information management challenges on implementing social media in government organizations, mainly in the areas of government data security, privacy, accuracy, and data archiving. There are some members of the community who do not have access to the internet because of the limited technological literacy, a disability, or a language barrier.

Designing flexible social media platforms and planning an effective strategy are an essential part of using these tools in government agencies (White, 2012). Sites need be created to meet the organizations' goals and objectives. According to White (2012), before starting to create a platform, it is crucial to know the target community because “ you may need more than one Facebook or Twitter site given that you may have more than one target population with whom you are communicating” (p. 37). Therefore, identifying the demographic profile of the local community through categories like age, sex, language, educational level, and household income offers an opportunity to make better communication with those groups. For example, as everyone knows, the younger generation is significantly more likely use social media than adults. If there is a multi-culture in local community, more than one language needs to be implemented in social media sites (White, 2012). It is also important to arrange a list of goals and expectation from social media sites and ensure they meet the purposes of the agency.

Government employment of social media should required some guidelines and frameworks for users, as well as followers, in order to overcome the technical barriers and thus, effectively use internet and social media (Government Digital Service, 2012):

Government should:

- Communicate with citizens in the places they already are
- Use social media to consult and engage
- Use social media to be more transparent and accountable
- Be part of the conversation with all the benefits that brings
- Understand that government cannot do everything alone, or in isolation
- Expect civil servants to adhere to the Civil Service Code (online as well as offline)

Social media has brought more transparency and accountability to both public and private sectors. Transparency is one of the important factors to reduce corruption in government departments (Bertot, Jaeger, & Grimes). Social media can reduce corruption and lead to greater transparency in public life by promoting open access to the governmental information, improving reform-oriented initiatives, improving interactions between government and community, allowing for public tracking of government activities, and by allowing citizens to better know the behaviors of government representatives.

Bertot et al. (2010) explains the opportunities of using social media in government and recommends focus on the accessibility of these tools.

“On one hand, never before have government and constituents had such an ability to create new services and resources, integrate a range of information and data, and devise entirely new ways to think about and provide government services. On the other hand, moving to increasingly technology-reliant approaches for governing can lead to exclusionary practices.” (p, 57).

The Impact of Information Technology in Policing

In recent years, the rapid growth of technology has positively affected many professional areas, including policing (Todd, 2011). As a result of the extraordinary development in

information technologies, there has been a huge impact in the support of and help for law-enforcement associated with the complex, broad and uncertain nature of doing police work (Reichert, 2001; Ellahi and Manarvi, 2010). Moreover, police agencies need information technologies to improve their overall efficiencies. There are many ways they could help develop an agency's work performance, such as; creating databases, more reliable investigative searches, providing online checking, tracking crime, protecting citizens, responding to crises, and solving crime, just for starters (Colvin & Goh, 2005; Johnston, 2007; Todd, 2011). In addition, there are various types of law enforcement agencies at the local, state and federal level in many countries including U.S.A. and U.K. These differences lead to improving communication and cooperation problems between agencies (Wessels, 2009).

The development of information technologies among these agencies is a new form of communication and it is crucial for solving interdepartmental issues (Hobbs 1989). In addition, the adoption of information technology by police officers increases the performance, productivity and effectiveness of both officers and agencies (Gottschalk & Holgersson, 2006). As Chan et al. (2001) implied, information technology increases intelligence sharing and improves secure communications among police officers.

Advancement in IT not only affects the policing landscape but also the police officers relationships with citizens (Todd, 2011). Nancy Kolb, senior program manager, at the International Association of Chiefs of Police (IACP) Center for Social Media, explains the role of social media in new policing as how “the exponential growth and popularity of social media and its effectiveness of communicating with a community is helping law enforcement departments across the U.S. to redefine what community policing is” (Basu, 2012). In this context, it is obviously that it is essential to use IT in police agencies in order to be more

effective and more efficient. These rapid changes in technology changes raise questions over how police should integrate themselves into this new policing model (Shearing & Marks, 2011).

User acceptance is an essential part of the integration of information technology. For the past several decades, many theories of technology acceptance have been proposed in order to explore the factors that influence the embracing or rejecting of information technology. These commonly used theories include the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB), the Task-Technology Fit Model (TTF), The Diffusion of Innovations Theory (DOI), and the Technology Acceptance Model (TAM). Based on these theories and models, numerous user acceptance studies have been conducted, Colvin and Goh (2005)'s study on the “*Validation of the Technology Acceptance Model for Police*” is unique in that it is more focused on the factors affecting police officers and the technology acceptance process. According to this study; four main factors have affected police officers’ and the adoption process, ease of use, usefulness, timeliness, and information quality (Colvin & Goh, 2005).

Social Media and Policing

Many police departments across the world and throughout the US are using various social media tools. Social media platforms have been successfully used in policing, and the use of social media sites by police departments has grown very fast over the last few years (Frank, Cheng & Pun, 2011) in no small part to the excellent opportunities it gives police agencies to communicate directly with their citizens (Mawby, 2010). The aims of police agencies in the use of social media are vary from department to department. The relevance of social media tools to police works relate to timely access to fresh information, improved two way communication and asking for help from followers to get hints toward investigations (Mawby, 2010). According to Lauri Stevens, principal at LAWS Communications:

“Social media tools offer police departments a way to listen to their citizens and hear what is being said about the department, crime, the quality of life, and events. They also offer the department the ability to shape the conversation. With a well-planned strategy for using social media tools, departments can actually increase control of their reputation” (The Police Chief, 2010)."

Besides informing the public, police can use social media in four important areas to solve crime and fight criminals: the source of intelligence for policing, the source of real-time information about safety issues, knowledge sharing within police agencies, and online community policing (Crump, 2011). It is obvious that the mobility, flexibility and efficiency of social media technologies give great opportunities to police departments in various issues.

Engagement, intelligence and investigation are three steps for police officers to use social media (Payne, 2012). Effective engagement with community is vital important for policing in this digital age. According to Nick Keane, Local Policing and Confidence Unit, "effective engagement is at the hearth of policing". In this regard, social media is best opportunity for succeeding in that issue (Payne, 2012). The main principles to improve the quality of social media engagement recommends that social media officers should be; credible, consistent, responsive, ambassadors, inclusive, ethical and personable (Digital Engagement, 2012). Intelligence is the second step of the engagement. Social media Intelligence differs from the traditional way because it is faster and more transparent, social media has been used effectively by police to obtain intelligence from the community. In 2010, police received 7,545 calls from the citizens in the UK related to social media platforms (Gill, 2012). The last step in using social media by police departments is investigation. Investigation speed is crucial important, especially the first hour after the crime when police need the speed of social media in a digital age (Payne,

2012). In this contest, social media tools are increasingly being used in criminal investigations by police departments (Craig, 2012). By finding clues on social media sides, police are conducting investigations, catching criminals, and preventing crime and doing investigation. According to Chad Hogan, an investigator with the Orange County Sheriff's Department, the use of social media in investigations depends on the crime, for homicide crime cooperation with companies via MySpace and Facebook is a good way. For other crimes they just monitor the suspect's profile by using social media platforms (Hayes, 2011).

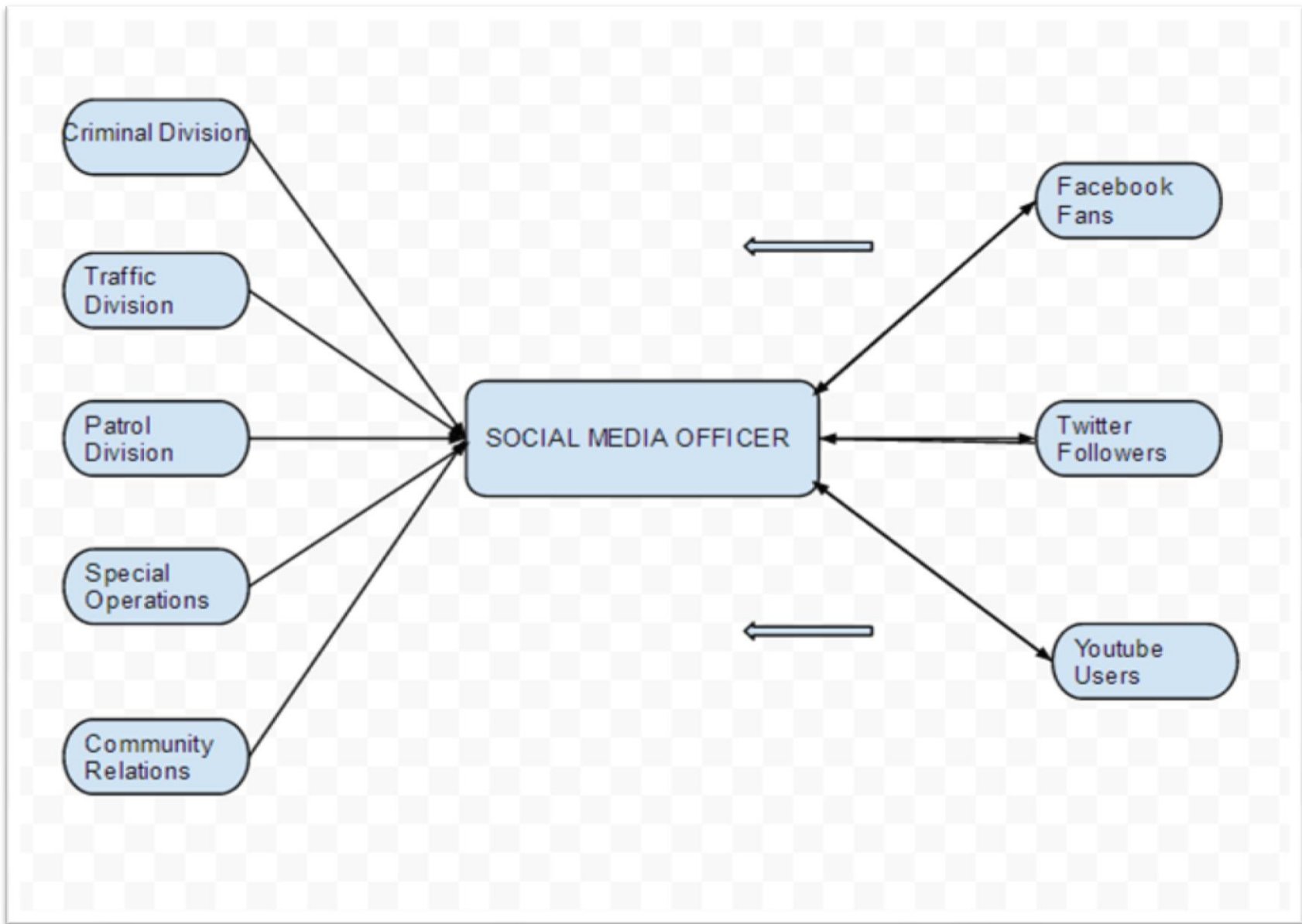


Figure 1. Social media using process in police departments.

Social media tools are used in a systematic way in the police departments. All police officers do not have the opportunity to administration of the departments' social media tools; only social media officers can administer these tools. Therefore, as it is seen in figure 1, first the divisions that need to use social media will/may: fill out a form then, attach the document which is uploaded on the department's social media tools where the head of the division has to sign it and send it to the social media officers. They send that information to the department's followers. This official process is for the big and middle size departments. Small size police departments use an informal rather than formal process.

Riot, Social Media and Police

Social media gives an amazing power to the rioters. They can be more organized and a meeting place can be announced spur of the moment. This is a big challenge for police forces to kept up this change. In this case, using social media is becoming a necessity by police. Police have used social media effectively during the Vancouver 2011 and London August 2011 Riots. Police used social media during riots as a surveillance tool to catch rioters and to inform the community (Tonkin, Pfeiffer, & Tourte, 2012). Police can track the suspected rioters by using their post and then arrest them (Dzieza, 2011). In addition, these riots showed that police need to adopt social media tools to prevent future riots (Lee, 2011), in part, because these rioters are social media users and generally young and frequently good at using newest technologies. In this contest, police officers need to be as skilled or more skilled than the rioters in using social media in order to deal with them (Adams, 2011; Travis 2011). Furthermore, according to David Wilson, professor of criminology at Birmingham City University, although criminals and football hooligans have been using social media very effectively, police are too slow to adopt it (Corkindale, 2011). Police administrations must develop new strategies for police officers to gain

social media training because the current training is not enough to keep up with people using social media for illegal activities (Travis, 2011).

Vancouver Stanley Cup Riot 2011

On June 15, 2011, Canada's best hockey team, the Vancouver Canucks were playing against the Boston Bruins for the seventh and final game of the Stanley Cup Finals at Rogers Arena in the city of Vancouver, British Columbia. The interest of local and regional people was incredible. According to Vancouver Police Department (VPD) statistics, over 150,000 people attended downtown Vancouver to watch the final game. The crowds were bigger than ever and much larger than what was expected. The Vancouver Canucks lost the final. By the end of the game, fans started rioting; they burned police cars, looted the stores and markets, and clashed with police officers. By the end of the night, the estimated of the damage to the city was in the millions of dollars; 112 businesses were victimized, 122 vehicles damaged and 52 assaults were identified in one of the worst riots in the North American sports history (VPD, 2011).

In addition to traditional methods police made use of social media sites, particularly Twitter, Facebook and Flickr, before during and after the game. Throughout the final game VPD social media officers tweeted messages encouraging fun and safe celebrate and distributed useful information to the public. The following are some examples of tweets to the public during the final game:

"Vancouver Police & policing partners will be walking the blue line tonight...fans are urged to stay on side! #VPD #Canucks"

"Celebrate Game 7 with 100,000 friends... do it safely and remember we've got your back! #VPD #Canucks"

*“#VPD asking people to stay safe and not to climb up onto awnings or other structures.
#Canucks #crowds #safety”*

The first six games of the finals were peaceful. Police did not have a specific plan for the riots because they did not expect this level of vandalism. Soon after rioting began, the VPD sent following tweet to the followers to hold on their photos and pictures:

“Anyone with photos of people committing criminals acts, please hold onto them. With the situations on-going we will need them later. Thnx”

During the Stanley Cup riots 2011, police received 4,300 email tips, 1,500 hours of video and 15,000 pictures from the public. Due to the huge number of pictures and videos, CPD created a team, including 50 police officers and experts, to classify the documents for investigation (The Huffington Post, 2012).

London Riot 2011

One of the biggest riots in London history began on Thursday, August 4, 2011 in North London. During an investigation on gun crime 29-year old Mark Duggan was shot dead by London police. Duggan’s family and friends started a peaceful protest near the Tottenham police station on August 6. The peaceful protest quickly devolved into violent riots after a dispute between a police officer and a protestor. Riots quickly spread to neighboring London and to other cities in England such as Enfield, Brixton, Hackney, Croydon and Ealing, and other English cities including Birmingham, Leeds, Manchester, Nottingham, Salford and Wolverhampton, as demonstrators smashed and looted big stores and supermarkets and burned police cars (Clarke, 2012). When the riots ended, 3,100 people arrested and more than 1,000 of those arrested. The cost of the riots in England has been estimated at over £300m by the

insurance industry. More importantly, the riots were responsible for deaths of five people and many injuries (Lock, 2011).

Both rioters and police in the 2011 London Riots used the power of the social media venues of Facebook, Twitter and Blackberry's messenger service. Social media tools allowed people to communicate without being censored, openly identified or even monitored. Therefore, rioters were not afraid of using social media to organize themselves for their riots. However, England police used same technology to track, identify and catch rioters with posts, tweets and text messages of their own. The local police used Twitter in order to give real-time information about where and when violence or riots were occurring and reported and current statistics about the number of arrests and injuries (Crowe, 2011). Similarly, residents helped police to identify rioters and looters with Facebook and with Flickr, a photo-sharing site. As a result, many suspects were identified and arrested via messages sent through social media with the help of citizens (Dzieza, 2011).

Social Media, Disaster Management and Police

Social media can be used as an operational system during a disaster because the most important challenge for both citizens and emergency managers is communication. Social media is a good solution for this biggest of challenges (Crowe, 2010). During and immediately after the a disaster such as flooding, it is certain that many phone networks are unable to deal with the suddenly very high volume of calls and texts. Therefore, the increasing rate of smart phone distribution makes social media a primary part of emergency response times, particularly during and after a disaster. Especially, Facebook and Twitter, especially, have the power to communicate with hundreds of thousands of people a matter of moments. People can freely share real-time information, remain online, and request for assistance. When compared with

government organizations, police are the best prepared and ready department for responding to disasters (Bonkiewicz and Ruback, 2012). Therefore, police departments to communicate directly to the community and to support and serve more effectively in times of disasters have used social media. Why? Social media tools are the best and fastest way to share information with people. During the disaster both citizens and police agents are affecting from frightening circumstances; such as family, home and personal safety issues (Bonkiewicz & Ruback, 2012).

In Australia, during the 2011 floods in Queensland and Victoria, Queensland Police Service (QPS) social media tools, significantly Facebook, became a main source of trusted real-time information because QPS distributed crucial public safety information fast via social media channels (Bird, Ling and Haynes, 2012). Throughout the 2011 floods, QPS Facebook page popularity grew rapidly and the number of “likes” increased from 17,000 to 170,000 (QPS, 2011). Today, with more than 300,000 likes, QPS has one of the most ‘liked’ and most viewed Facebook page. Absolutely, there is an important reason why the citizens show so much interest on QPS Facebook fan page, during disasters. According to QPS case study (2011):

- Police Media had high-level organizational support, including from the Commissioner and Deputy Commissioners
- Social media had a champion in the Executive Director of the Media and Public Affairs Branch who championed its benefits from within the QPS Senior Executive and set the direction for the media and public affairs team
- Police Media was fortunate enough to have the benefit of a seven-month trial in which the team was able to become comfortable with its use and imbed it as part of its daily processes prior to a disaster occurring

- Through potentially disastrous circumstances, Police Media was able to quickly prove the worth of social media during two major disasters.

Social Media Transparency and Fighting Corruption

After President Barack Obama developed “Transparency and Open Government Directive”, government transparency has become an essential issue in the U.S. (Meijer, 2012). The federal governmental agencies embraced the implementation of social media for this purpose (Bertot, Jaeger, & Hansen, 2012). Similarly, President Obama and political leaders throughout the world have committed themselves to creating this kind of initiatives in order to promote transparency and openness in their governments (Meijer, 2012). According to Bertot, Jaeger, and Grimes (2010),

“Transparency and the right to access government information are now internationally regarded as essential to many functions of democracy: participation, trust in government, prevention of corruption, informed decision-making, the accuracy of government information, and provision of information to the public, companies, and journalists, among other essential functions in society” (p.51).

Transparency plays an essential role for sharing information and that in turn is crucial for reducing corruption. The synergetic relation between transparency and corruption cannot be ignored. In this context, transparency is one of the key factors to reduce corruption in government agencies (Kolstad & Wiig, 2009) and is an essential factor in creating clearness and openness in community. Thus, the increase in using social media provides a positive impact on the fight against corruption by promoting transparency and openness in government agencies (Bertot, Jaeger, & Hansen, 2012). In these days, governments are transforming their services to

digital forms in order to give access government information more easily and to bring government and community together. The majority of government services are now available electronically. In this context, using social media should change the fight against corruption in the community.

According to Shim and Eom (2009), there are three main approaches for fighting corruption:

- 1) Administrative reform: Improvement of the quality of government bureaucracy and hiring successful employees.
- 2) Law enforcement: Punishment of taking a bribe in place because prosecution of corruption cases is good example for employees.
- 3) Social change: Change of cultural attitudes that have been accepting of corruption.

With these three approaches social media can be used to fight corruption (Bertot, Jaeger and Justin, 2010).

Although information issues have not been focused on by many initiatives such as the World Bank, the International Monetary Fund and the Inter-American Development Bank, social media presents a new approach to creating transparency and promoting anti-corruption in these institutions (Bertot, Jaeger, & Justin, 2010). Social media

“can reduce corruption by promoting good governance, strengthening reform-oriented initiatives, reducing potential for corrupt behaviors, enhancing relationship between government employees and citizens, allowing for citizen tracking of activities, and by monitoring and controlling behaviors of government employees” (p. 265).

Another type of opportunity for social media in fighting corruption is that it provides access to open government data. Thus, all citizens such as researchers, investigators, technologists, and students can benefit from the data and can make analyze it for study.

Citizen journalism is another opportunity of using social media to create transparent community. Parallel with the rise of social media, citizen journalists promote transparency especially when the traditional media is unsuccessful or when the media is controlled by the government (Bertot et al., 2010).

However, there are challenges and positive aspects to using social media in government agencies. For example, accessibility is an essential barrier to widespread use of social media tools (Bertot et al., 2010). Access to use of social media tools required a device and high-speed internet access. According to Internet World Statistics 2010, nearly 23 percent of the world's population lacks internet access (internetworldstats.com). Using these tools to reach people without internet access is another challenge. In order to reduce these kinds of barriers, the local government can create community based public locations such as libraries for internet access and usage assistance (Bertot et al., 2010)

CHAPTER 3

METHODOLOGY

Introduction

The purpose of this qualitative study is to explore how police departments use social media to solve crimes, for better overall communication, to protect and inform the community, and to reveal challenges and barriers to departments' social media usage. The design of this study was a grounded theory, qualitative field approach in order to develop a concept that explored the social media usage process of police departments and exposed the obstacles to that process.

This chapter explains the methodology that would be used to answer three research questions that served as guides in the progress and development of this study. In addition, the chapter summarized the qualitative research methods and practices while clarifying how the data were obtained and how the data were analyzed. The final parts of this chapter explained the reliability, validity and ethical issues of the research study.

Appropriateness of Design

A qualitative study was used to seek answers to the three research questions in this study. One of the advantages of a qualitative study is that researchers can add new pieces to their study in the data gathering process (Charmaz, 2006). Because of its flexibility and freedom, grounded theory is quite reasonable for collecting and analyzing qualitative data. In addition, a grounded method “allows for an inductive approach to create theory which describes a unique organizational phenomenon” (Baradihi, 2012, p.75). Additionally, grounded theory “is a reflexive approach because this process is centered on surfacing and making explicit the influences and inductive processes of the researcher” (Baradihi, 2012, p.75). Similarly, Charmaz

(2006) explains that grounded theory provides “a way to learn about the worlds we study and a method for developing theories to understand them” (p.10). Grounded theory requires more interaction with participants than other methods of data collection. The quality and credibility of a study is directly related to the value of the data (Bruce, 2007). Therefore, grounded theory was used to analyze the data gathered.

This research study used a qualitative approach because this method requires interaction between the investigator and the research. Berg (1994) stressed that the qualitative framework can better enhance access to the interaction between researcher and participant. Additionally, researchers in qualitative approaches can go the “step beyond the known and enter the world of participants, to see the world from their perspective and in doing so make discoveries that will contribute to the development of empirical knowledge” (Corbin & Strauss, 2008, p. 16).

Research Questions

The study is based on three questions but they did not bind it. As Charmaz (2006) implied, theory “offers an interpretive portrayal of the studied world, not an exact picture of it” (p.10). In this context, to explore social media usage in police departments, the following research questions were investigated through social media officers working at the DFW metropolitan area principal cities’ police departments:

Q1. What are the driving factors of department users that encourage the choice to adopt and use social media?

Q2. How are the police departments managing their social media tools?

Q3. What are the barriers that could slow the adoption of social media?

Researcher's Role in Qualitative Study

The role of the researcher in a qualitative study is differs from the quantitative researcher in the process of the study. The researcher's knowledge, skill, and sensitivity as well as readiness are essential to in research success (Glaser & Strauss, 1967) because the researcher is involved in every part of the research process in the qualitative study (Fink, 2000). Similarly, Strauss and Corbin (1990) stressed the importance of the researcher in qualitative studies:

“Theoretical sensitivity refers to a personal quality of the researcher. It indicates an awareness of the subtleties of meaning of data. ... [It] refers to the attribute of having insight, the ability to give meaning to data, the capacity to understand, and capability to separate the pertinent from that which isn't” (p.42).

In addition, in the data processing and presentation process, the results of both coding and analysis are based on the researcher's exploration (Fink, 2000).

The researchers' knowledge of the literature and experience in the field are crucial for the data processing and decision-making process (Hoepfl, 1997). In this study, the researcher's own experience and knowledge in the police work are used to maximum advantage in the research process.

Qualitative Approach

There are numerous differences between qualitative research and quantitative measurement. Quantitative research takes the form of statistical analytics such as a large quantity of numbers and statistical methods, whereas qualitative research relates better to case studies. However, according to King, Keohane, and Verba (1994), appropriate qualitative and quantitative researches don't vary in terms of methodologically and substantively. Only stylistic

differences really occur. They add that both qualitative and quantitative research studies have a different style of research but they have one logic of consequence.

Qualitative research is broadly defined as "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification" (Strauss & Corbin, 1990, p. 17). Qualitative research investigates the social or human problem from a different perspective. According to Babbie (1983) quantitative research is "the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect" (p. 537). The aim of the quantitative researcher is to conclude whether the predictive generalization of a theory is valid. The differences between qualitative and quantitative research emerged from different viewpoints toward to problem solution. The major differences are that qualitative research generally deals with case studies, definitions, and history while quantitative research concentrates on numbers and statistical methods. Another difference is that qualitative research is inductive while quantitative research is deductive. All quantitative research needs hypotheses developed before starting the research while hypotheses are not required in qualitative research. Quantitative research is objective while qualitative is subjective. Furthermore, quantitative research lends to explanatory laws while qualitative research concentrate on in-depth descriptions.

Population

The research study of social media usage by principal city police departments in the DFW area is based on depth interviews with department social media officers and online observation of the social media platforms, used by departments. The DFW metropolitan area is the fourth largest population area in the United States. According to United States Census Bureau data, there are 13 major cities with populations higher than 100 thousand, 50 middle-size

cities with 10,000 to 99,999 inhabitants, and 151 small-size communities with fewer than 10,000 populations. I chose a list of city police departments from populations higher than 100 thousand, using United States Census Bureau data; therefore, 13 police departments that fit the target criteria.

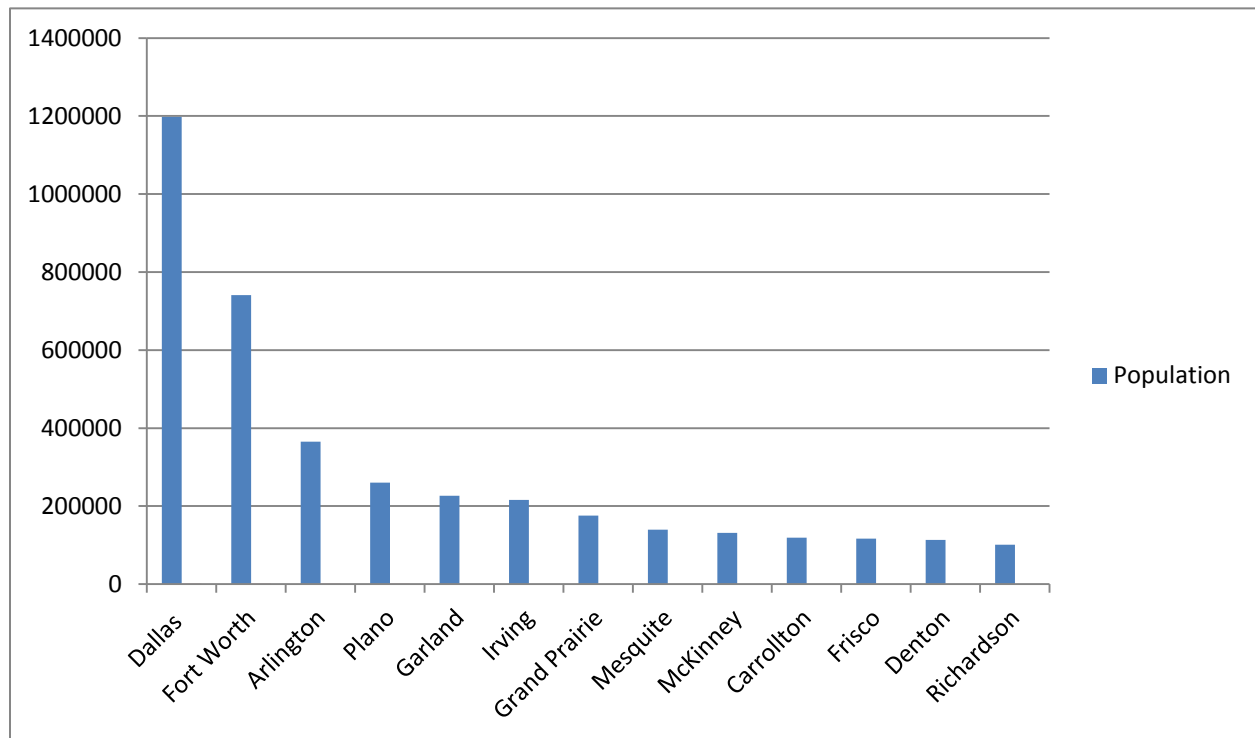


Figure 2. The DFW area major cities' population.

As it seen on the table figure 2., the city of Dallas is the most populous city in the area with a population of 1,197,816 (US Census Bureau, 2010).

Police departments' size varies from bigger to medium-sized to smaller in the DFW area. According to the United States Department of Justice Bureau of Statistics in 2007, a listing of the largest local police departments by total number of full-time sworn officers, there are two departments from the DFW area in the top 50; the city of Dallas Police Department is the 8th and

the city of Fort Worth police department 34th

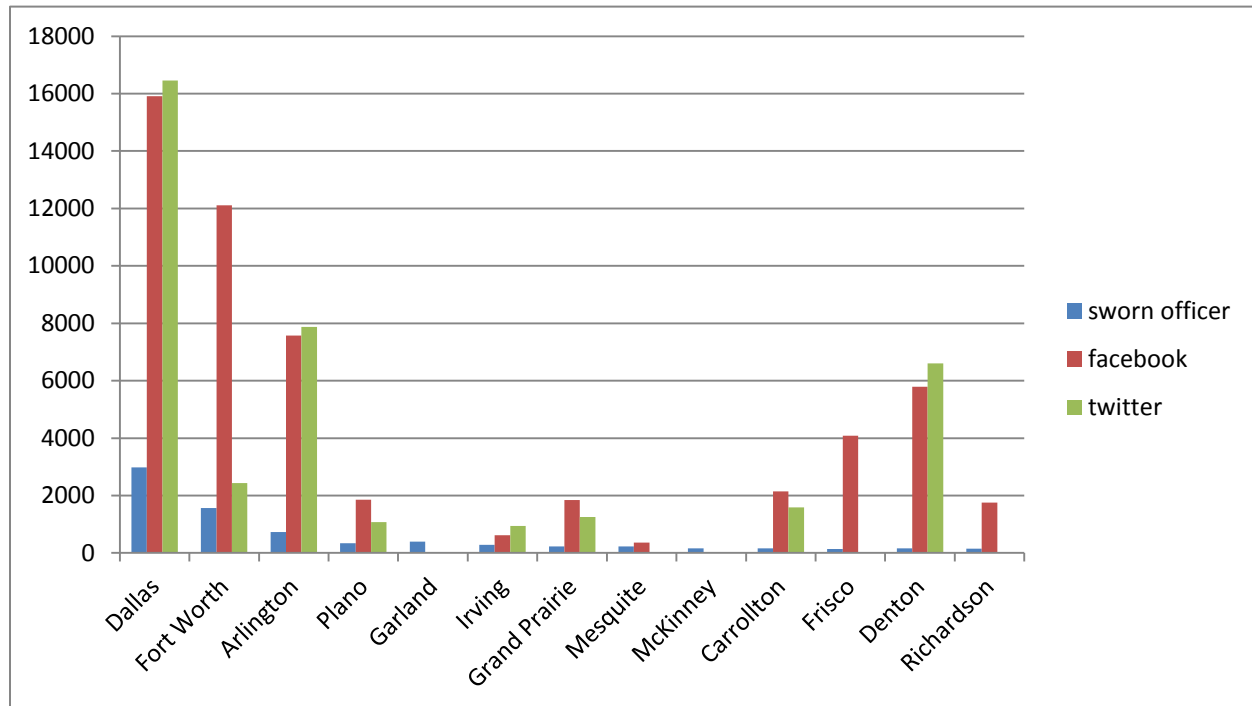


Figure 3. The DFW area major cities sworn officers, Facebook and Twitter followers.

Sampling

Sample techniques were selected based on the purpose of the study. Determining the size of the sample is crucial for a study. Creswell (2002) implied that a general rule is to select as large a sample as possible from the population or from the individuals available. Additionally Creswell roughly recommended the participant numbers for qualitative and quantitative studies as following:

- The selection of approximately 15 participants in each group in an experiment
- The selection of approximately 30 participants for a correlation study to relate variables.
- The selection of approximately 350 individuals for a survey

(Creswell, 2002).

According to Charmaz (2006), "logic of saturation" disputes 'that you keep sampling until your categories are saturated and that this logic supersedes sample size' (p.114). In this context, all the social media officers agreed to participate in the study therefore; the sampling frame consisted of all major cities police departments in the area. Potential participants were initially contacted by e-mail with an office visiting and a request for a meeting. Once a time is agreed upon, a face-to-face meeting was scheduled with the respondent and conducted in that police department. Participant numbers are chosen based on the department size and effective social media usage. For big sized police departments two/three participants were chosen for the interview, for all other departments one participant was chosen. Each session was tape-recorded and transcribed word-for-word for analysis. The qualitative data for this research are in the form of semi-structured interviews with 12 social media officers four sergeant and two senior social media management officers.

Confidentiality

Confidentiality is an essential part of any research project. It plays a critical role in participant response. Therefore, in order to protect the confidentiality of the participants, they were not identified by name in the data analysis. All data was coded using a numerical prefix.

Geographic Location

Social media officers and media relations officers from nine city police departments in different locations in the DFW area were participated in this study. The police departments were selected by size and order. The DFW region police departments make extensive use of social media. Dallas and Arlington police departments, located within DFW region, are in the top five U.S. law enforcement agencies for its size and order, according to the International Association of Chiefs of Police's Center for Social Media.

Data Collection

Data were collected from social media officers and media relations officers through personal interviews and from online observation of interactions through social media tools used by the police departments selected in this case study. Even though the data for the study could be collected using focus groups interviews method, individual interviews were chosen because of the there are a number of advantages associated with individual interviews in comparison with group interviews. Stokes and Bergin (2006) are expressed it as follows “individual depth interviews have intrinsic advantages relating to the quality of the research outcome” (p.27). In addition, a benefit of individual interviews “it is the free exchange of information without social pressure of the group and the ability to reveal underlying important attitudinal information (Gellynck & Kuhne, 2009, p.126). Additionally, during depth interviews, interviewers “have an ability to generate data of depth and complexity” (Hadziabdic, 2011, p. 21).

All he interviews took place in the participant's office, where they most likely feel comfortable. The interviews were audiotaped and transcribed verbatim. The interviews were cover three main topics based on the research questions. In the first part, the questions were about intention to use and adoption of using social media. In the second part, motivation factors were explored and in the last part, the questions were about the barriers and challenges on social media usage.

During the period of the online observation, the researcher joined the social media tools as a follower of each of the police departments identified in this study. In addition, the researcher established establish a “Google Alert” and “Bing Social” that provided real-time observation and daily an e-mail messages sent to the researcher, which will also identify the participating police department for this study.

Online observation of activity on social media over three months period was provided to opportunity for explore how police departments use social media to solve crimes, better communicate, protect and inform the community, and to reveal challenges and barriers. Through social media tools, in particular, Facebook and Twitter, the researcher engaged in online observations of all social media postings made by a police department's social media tools. As a result, the online observation data served as basic information to understand how a police department uses social media followed by interview.

Online observation provided more information about activities posted through social media such as comments, thoughts, posts, videos, and photographs. In addition, the researcher became more familiar with the departments social media tools and the session with the interview participant. Much can be learned from online observation, such as, what type of information the department share, how the followers interact with the department, and what kind of information the citizens mostly care most about.

The purpose of online observation of police departments' social media tools is to better understand the utilization of these platforms and be more familiar with their usage process. The data were collected with the type and purpose of the posting the participation of the followers, and more.

Data Coding and Analysis

The researcher used a grounded theory method. Online observation and individual interview data were collected by the researcher in the form of notes and audio-type interviews. According to Crow and Semmens (2008), the research can be more scientific by using systematic and organized analysis. Therefore, the data were coded and analyzed in a comprehensive and

systematic approach. Furthermore, in order to help the readers to make decisions about the findings of the study, the detailed description of the research process was presented.

The researcher conducted the interviews in the participant's office. Each interview were tape-recorded and all recorded data were transcribed verbatim. Generally, the qualitative data collection and analysis method occur simultaneously, in order to have more valuable data and useful findings (Suter, 2011). Therefore, data analysis and conducting interview process was simultaneously in this study. After transcribing the tape-recorded interviews, in order to make data more manageable, qualitative software (QSR NVivo9) was used in the interpretation and analysis process. According to Suter (2011), to explore and discover this the complex process, the researcher should ask “How” or “What” questions in qualitative research. For that reason, during analysis process, “How” and “What questions asked by the researcher.

Figure 3.1 shows the organization of the data and how it was used for coding and analysis. The shape provides an image for how coding created on all data for purpose of the study

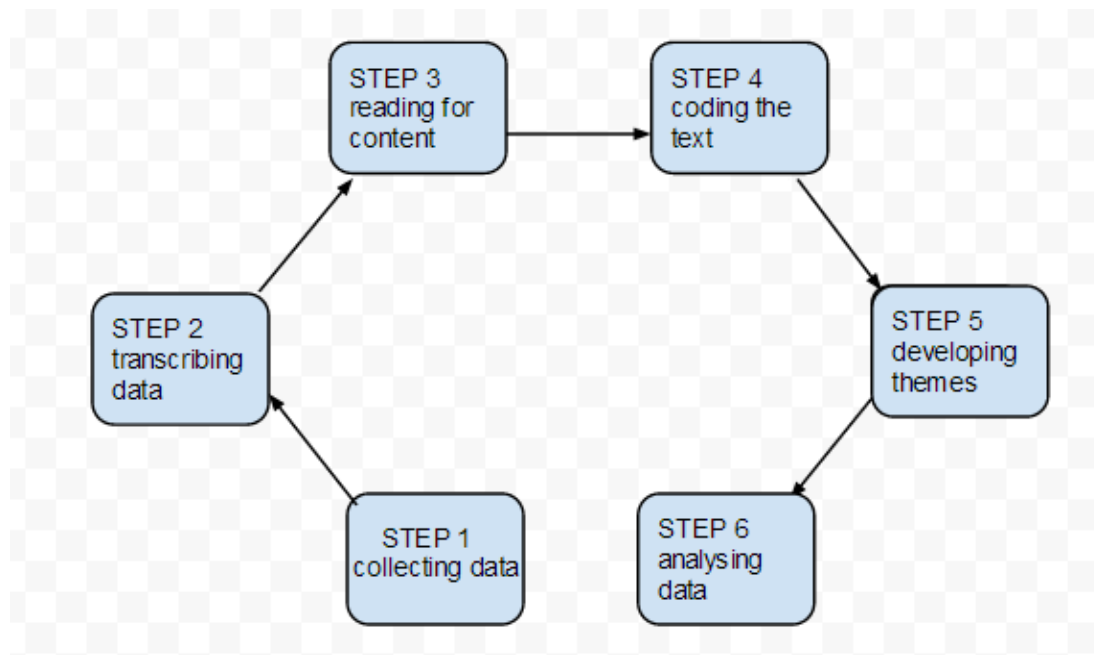


Figure 4. Workflow for individual interview in the research study

Data were collected from online observations and individual interviews then, were coded separately by using QSR NVivo9 (Qualitative Solutions and Research, 2010). There are many advantages to using computer-based software in qualitative research. One of the benefits is the ease of data management by the automated phase of coding (Lee & Esterhuizen, 2000). After the data were coded by using QSR NVivo9, they were interpreted by using same software program.

Open coding, axial coding and selective coding are three stages of data analysis in grounded theory. The researcher used an open-coding stage to analyze the data. Open coding means identifying, naming, categorizing and describing the case in the transcript. The data were coded based on the keywords determined by the researcher during the coding process. Then, the codes were categorized in systematic orders in relations to similarities, differences and frequencies. Finally, these codes and categories helped the researcher to build theories.

Validity and Reliability

Both qualitative and quantitative researchers have to take validity and reliability efforts seriously in order to demonstrate that their research is credible (Golafshani, 2003). Although in quantitative research credibility is related to instrument construction, the researcher is the instrument in a qualitative study because that individual has a key role in all data collection and analysis processing (Patton, 2001). Therefore, the credibility of a qualitative study depends on the ability and expertise of the researcher.

Validity addresses quality, rigor and trustworthiness in qualitative studies (Stenbacka, 2001). Sarantakos (1994) emphasizes the validity as “a methodological element not only of the quantitative but also of qualitative research” (Sarantakos, 1994, p. 76). It is necessary to present some definitions to understand what validity means. Kirk and Miller determined that the validity in their work “concerns the interpretation of the observations whether or not the researcher is calling what is measured by the right name” (Kirk & Miller, 1986, p.69). In addition, Bryman describe the validity as the “integrity of the conclusions that are generated from a piece of research” (Bryman, 2008, p.31). Based on the preceding definitions, it can be seen that the validity in qualitative studies means the bridge between data and conclusion.

Reliability addresses dependability in qualitative studies (Stenbacka, 2001). According to Seale (1999), to ensure reliability in a qualitative study, the researcher needs to examine the trustworthiness of the research that “trustworthiness of a research report lies at the heart of issues conventionally discussed as validity and reliability” (p.266). According to Hammersley (1992) reliability implies the “the degrees of consistency with which instances are assigned to the same category by different observers or by the same observers on different occasions” (p.67).

In this research, the data were collected by both personal interviews and online observations of the social media tools. In order to increase the reliability and validity of the study, the researcher coded manually and electronically by using QSR NVivo9.

Triangulation is a way of testing the validity and reliability of the research (Johnson, 1997). According to Guion et al., (2011) five types of triangulation methods used in qualitative research. These are data triangulation, investigator triangulation, theory triangulation, methodological triangulation and environmental triangulation.

Researcher applied investigator and methodological triangulation methods in the study. Investigator method of triangulation is accepting help from other researchers' during the process of collecting and analyzing of the data (Duffy, 1987). Therefore, the researcher applied investigator triangulation by requesting other researchers to help analyze the data. Percent agreement is the common way to calculate inter-coding reliability between two researchers (Marques & McCall, 2005). In this study, reliability would be calculated as: $\text{Reliability} = (\text{Total number agreements}) / (\text{Total number observation}) \times 100$. In the case of this study, the outcome would be:

Managing Social Media Tools:

Researcher 1 submitted a total of 142 detected references for the selected codes.

Researcher 2 submitted a total of 125 detected references for the selected codes.

Between two researchers there were 96 common codes found.

$$R = (96+96) / 267 \times 100$$

$$R = 72$$

Adopting Using Social Media:

Researcher 1 submitted a total of 47 detected references for the selected codes.

Researcher 2 submitted a total of 41 detected references for the selected codes.

Between two researchers there were 34 common codes found.

$$R = (34+34) / 88 \times 100$$

$$R = 77$$

Challenges:

Researcher 1 submitted a total of 24 detected references for the selected codes.

Researcher 2 submitted a total of 27 detected references for the selected codes.

Between two researchers there were 19 common codes found.

$$R = (19+19) / 51 \times 100$$

$$R = 75$$

The total outcome would be:

$$\text{Reliability} = (149+149) / 406 \times 100$$

$$\text{Reliability} = 73.3$$

According to Lombard et al., (2010) minimum acceptable level of reliability is 70. Therefore, for this study percent agreement could be considered. The findings from two different researchers demonstrate that the results increased our confidence in the finding and met the criteria of quality and dependability.

Ethical Considerations

Ethical problems in qualitative research are more difficult than in quantitative study because the researcher has “to protect the dignity, rights, safety and well-being of all actual or potential research participants” (Governance arrangements for NHS Research Ethics Committees 2001). In qualitative study, creating a confidence between participant and researcher is a crucial

issue. Therefore, if the researcher is sensitive to the ethical issues, the participants were more comfortable in expressing their ideas and feelings regarding this study.

During this study, the researcher protected the identity and personal information of the individuals interviewed by assigning a code tag to each participant and using these code tags instead of their personal information in order to protect participants' privacy, confidentiality and anonymity. In addition, the researcher gave a brief explanation about the study, the number of the questions, and the duration of the research.

In order to assure the confidentiality and to prevent potential ethical problems the researcher applied to the UNT Institutional Review Boards (IRB) before the interview process. Participation in the study were voluntary therefore, there were institution-requiring permission obtained for each participants from their departments.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

Introduction

The purpose of this qualitative study was to explore how police departments use social media to solve crimes, to better communicate with community, to protect and inform the citizens, and to reveal challenges and barriers that city police departments face when implementing social media usage. The methodology used here analyzes both in-depth interviews with department's social media officers and online observations of the social media platforms, used by departments. The methodology was proper to the problem since through those who have experienced the social media usage process is best explored through those who have experienced the trends within it as done by Creswell (Creswell, 2005). In this study, twelve police officers who they have managed social media tools from nine departments in the DFW metropolitan were interviewed.

Chapter 4 presents the detailed analysis of the interviews conducted and observations taken from a three-month period of using social media platforms. Once the interview questions and the protocol was approved by the IRB of University of North Texas, the study was then conducted with twelve police officers, who they have managed their departments' social media tools. The interview data were analyzed using NVivo 9, a qualitative data management and analysis software program.

Tag Clouds

The below findings are based on analysis of NVivo Word Frequency Query of the language used in the interviews with twelve participants from eight different departments. Data analysis of participants interviews provided 100 most used. These collected words formed tag

clouds. The selection of the top 100 tag clouds came from a word search in NVivo9 filtered by the options 'without similar words' or 'broadest search with five characters or more' including all participants. The tag clouds provided a broad word search for an accurate content analysis.



Figure 5. Tag clouds of the interviews' transcribes

The tops five terms with highest hits are 'social', 'media', 'information', 'department' and 'Facebook'. Using data from figure 5 it was possible establish how closely these terms tied policing to social media (SM) and information. From figure 5, over half of the terms out of the top 20 related to social media and community. Only two terms 'crime' and 'robbery' related to criminal activities. This may seem low considering the interviewees were police officers talking

about their jobs, however, keep in mind that NVivo is analyzing the conversation as a whole. The officers did discuss other terms relating to criminal activities but they did not register for the top 20 terms in the analysis of these conversations.

Participants Demographics

In this research study, participants included eight male four female police officers in the DFW metropolitan area principal cities' police departments. These officers worked in the Dallas, Forth-Worth, Arlington, Plano, Frisco, Grand Prairie, Carrollton, Denton and Richardson police departments. Ten out of twelve participants worked in the media and public relation divisions while one participant deployed on patrol and another operated out of the crime division. Nine out of twelve participants had no rank while the other three were sergeants. The data for demographics of the participants are in Table 1 below.

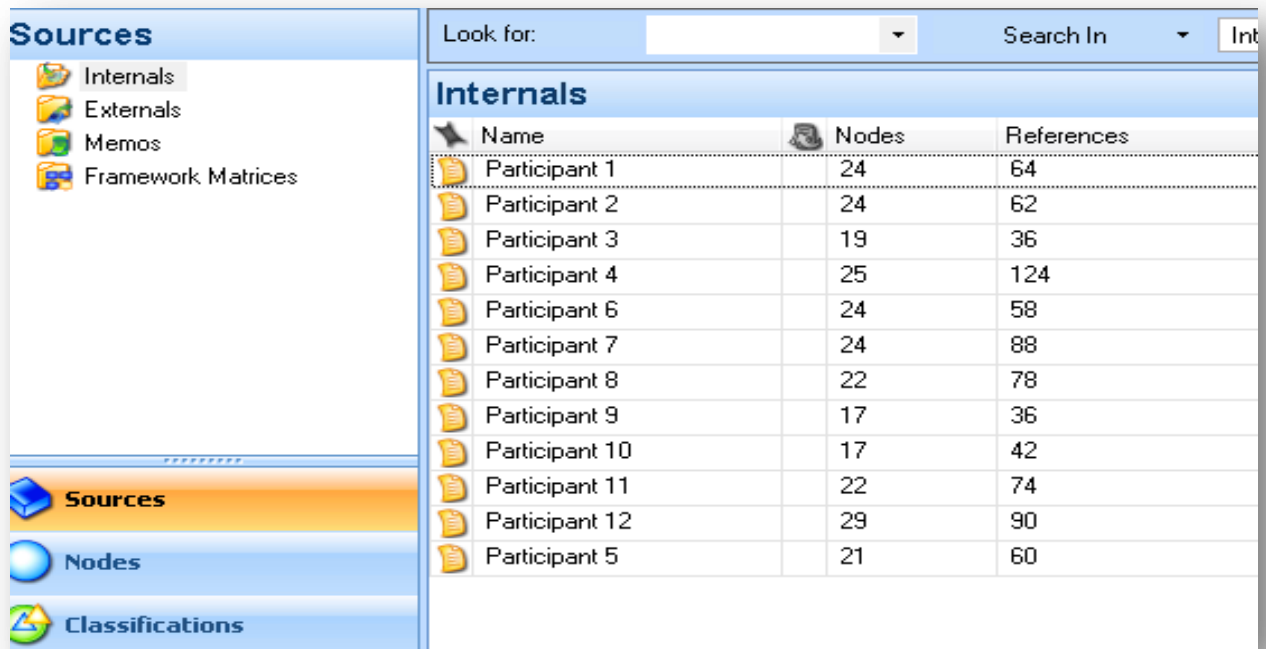
Table 1.

Demographics of the participants

Participants	Gender	Department	Division
Participant 1	Male	Department 1	Media Relation
Participant 2	Female	Department 1	Media Relation
Participant 3	Male	Department 2	Media Relation
Participant 4	Female	Department 3	Media Relation
Participant 5	Female	Department 3	Media Relation
Participant 6	Male	Department 3	Media Relation
Participant 7	Male	Department 4	Media Relation
Participant 8	Female	Department 5	Media Relation
Participant 9	Male	Department 6	Communication
Participant 10	Male	Department 7	Media Relation
Participant 11	Male	Department 8	Media Relation
Participant 12	Male	Department 9	Crime Division

Data Analysis and Findings

In order to support researcher's data analysis, the steps for analyzing interview data in NVivo 9 are described. Created a new project created within NVivo 9 software then the sources for the project followed by each the research participant sub-sources; see figure 6 for details.



The screenshot shows the NVivo 9 'Sources' window. On the left, a sidebar lists 'Internals', 'Externals', 'Memos', and 'Framework Matrices'. Below this, a navigation pane shows 'Sources' (selected), 'Nodes', and 'Classifications'. The main area displays a table titled 'Internals' with columns for 'Name', 'Nodes', and 'References'. The table lists 12 participants, with Participant 5 listed last. Search filters are visible at the top right.

Name	Nodes	References
Participant 1	24	64
Participant 2	24	62
Participant 3	19	36
Participant 4	25	124
Participant 6	24	58
Participant 7	24	88
Participant 8	22	78
Participant 9	17	36
Participant 10	17	42
Participant 11	22	74
Participant 12	29	90
Participant 5	21	60

Figure 6. NVivo9 source supplies identifying participants, nodes and references.

After entering the data into the NVivo database nodes were created at the sentences and paragraph level. Open coding was assigned to create nodes for each the key topics in the transcribed documents, as shown in figure 7 below.

Nodes

Nodes

Themes

Relationships

Node Matrices

Sources

Nodes

Classifications

Look for:

Search In

Nodes

Name	Sources	References
Managing Social Media Tools	12	267
Adoption Using Social Media	12	88
Challenges	12	51

Figure 7. Three nodes based on research questions.

Three themes were formed based on three research questions in order to analysis of the data, and then were applied to hierarchical structure for the data analysis spiral process.

Theme One: Managing Social Media Tools

The first theme “managing social media tools” addressed the research question “How are the police departments managing their social media tools?”

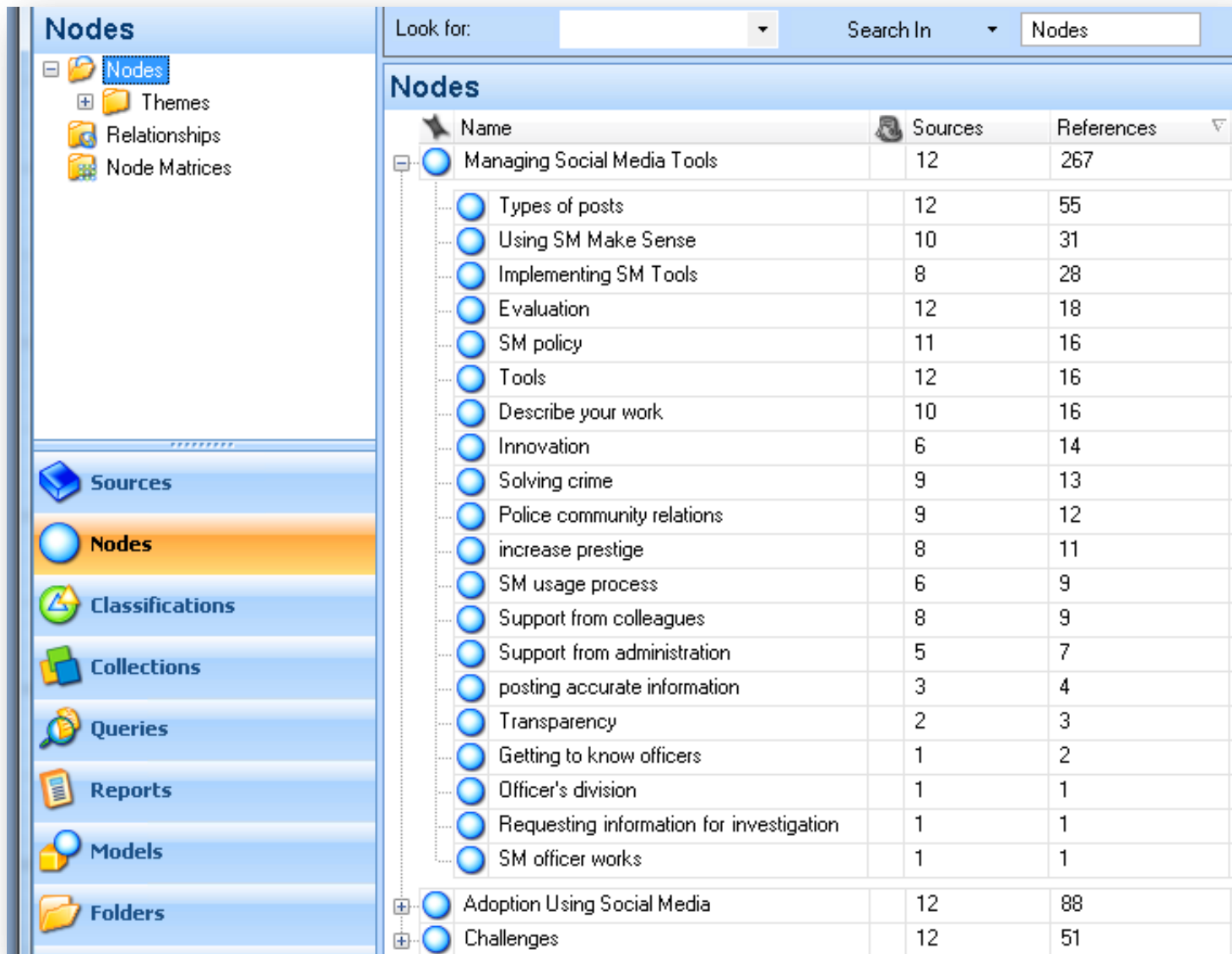


Figure 8. Theme one: managing social media tools.

Theme Two: Adoption Social Media Tools

The second theme “adoption social media tools” addressed the research question “What are the driving factors of department users that encourage the choice to adopt and use social media?”

Nodes

Nodes

Themes

Relationships

Node Matrices

Sources

Nodes

Classifications

Collections

Queries

Reports

Models

Folders

Look for:

Search In

Nodes

Nodes

	Name	Sources	References
	Managing Social Media Tools	12	267
	Adoption Using Social Media	12	88
	Increase followers	12	22
	Reason for starting to use SM	10	19
	Started using SM	12	13
	Succesfull use of case	8	11
	Administrative support	5	7
	Training	5	6
	Statistics	4	5
	SMILE conference	2	4
	Education of upper management	1	1
	Challenges	12	51

Figure 9. Theme two: Adoption social media tools.

Theme Three: Challenges

The third theme “challenges” addressed the research question “What are the barriers that could slow the adoption of social media?”

Nodes

Nodes

Themes

Relationships

Node Matrices

Sources

Nodes

Classifications

Collections

Queries

Reports

Models

Folders

Look for:

Search In

Nodes

Nodes

Name	Sources	References
Managing Social Media Tools	12	267
Adoption Using Social Media	12	88
Challenges	12	51
Bad comments	9	13
24 hours monitoring	7	10
Privacy	3	5
New technology	5	5
Affecting investigation negatively	4	5
What percent are you	2	3
Moderate Facebook	1	2
Language barrier	1	2
Network overloaded	1	1
Not everyone wants to hear the truth	1	1
Spending much time with SM	1	1
Integrity with city SM tools	1	1
Using personal page	1	1
Administrative barrier	1	1

Figure 10. Theme three: challenges.

Summary of Findings

The study used NVivo 9 qualitative analysis software to analyze the respondents' data as well as the online observation of the twelve city police departments' use of social media tools (cities with populations greater than 100,000). The data analysis focused on the 43 subcategories that initiated the creation of the themes for the codes related to the three research questions as chosen from grounded theory.

After establishing data results from the twelve face to face interviews, researcher then analyzed the results based on the coding process, categorizing 46 nodes and classifying three themes; “managing social media tools”, "adoption using social media tools", and "challenges."

Managing Social Media Tools

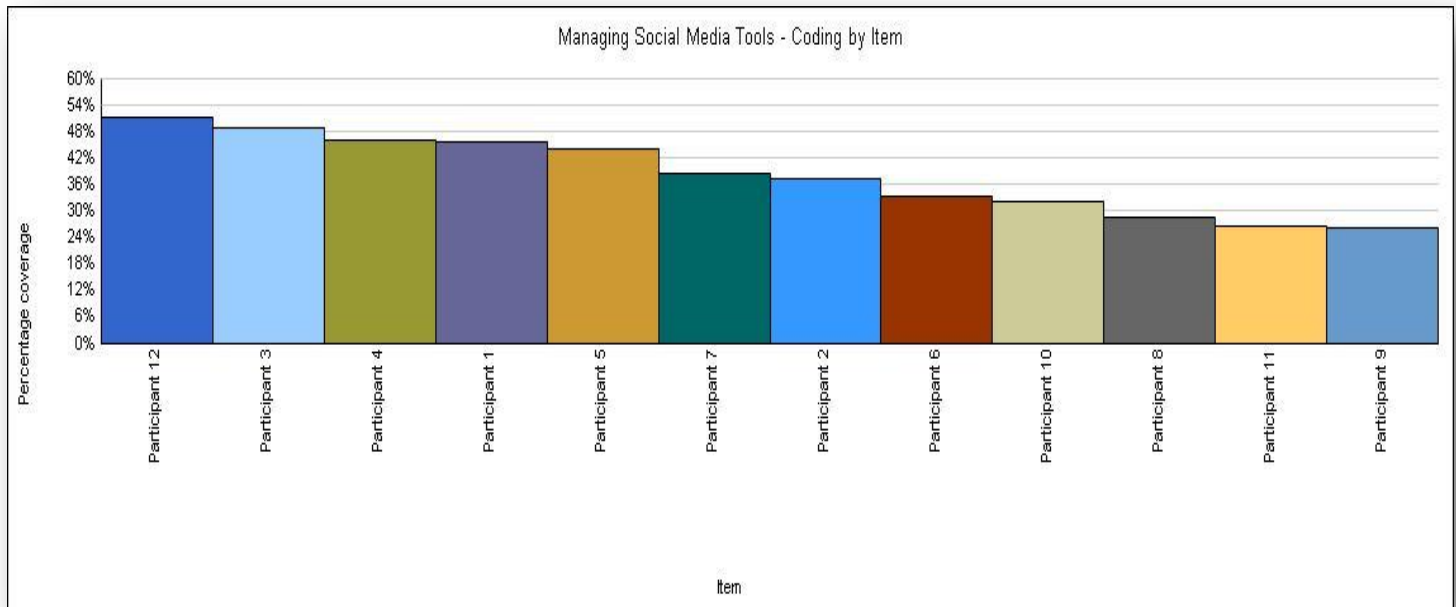


Figure 11. Managing social media tools-coding by item

The first category analyzed was “managing social media tools” identified as the reference points that explained how the research participants saw their use of managing social media tools, particularly Facebook and Twitter. These references included: types of posts, using SM making sense, evaluation, implementing SM tools, increasing prestige, solving crimes, SM policy, describe your work, etc. These *managing social media tools* references were coded for the participants' transcribed data and analyzed within a theme defined as "managing social media tools."

Figure 11 presented a graph created in NVivo to present the items coded within the node for managing social media tools. Analysis of this node shows the strength of the participants'

reactions almost equally divided. Though some NVivo sources seemed to show more strength than other source with regards to managing social media tools.

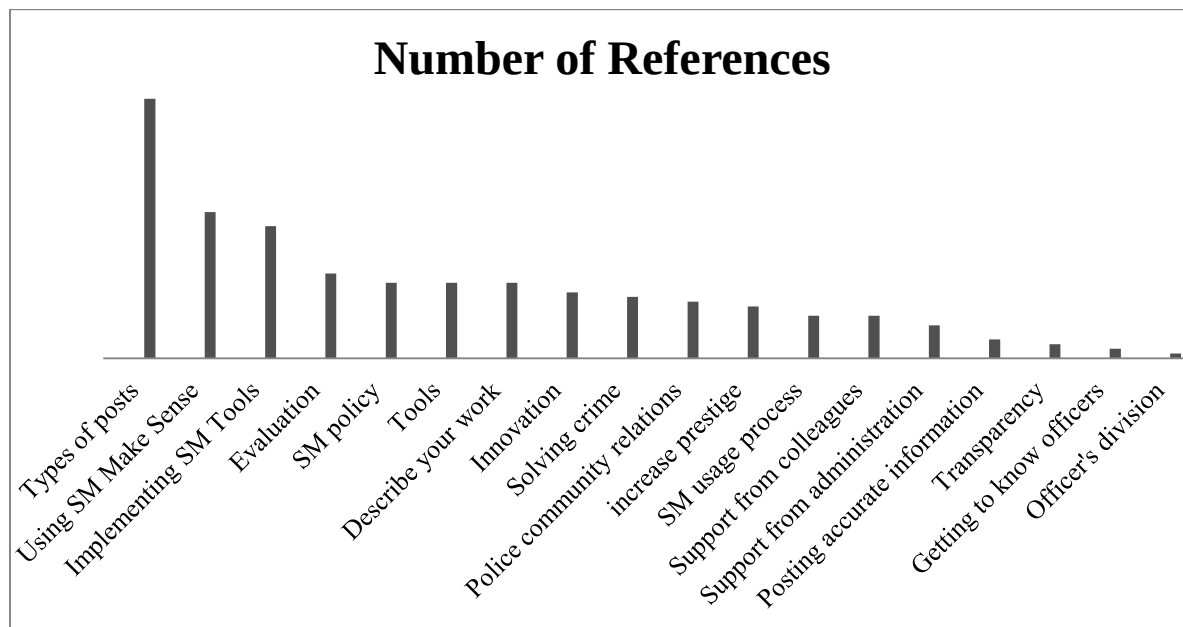


Figure 12. Managing social media tools: number of references.

Figure 12 clearly shows that “types of posts” had the highest number of reference in the data. If we look at references that had an occurrence of ten or greater we see ten more “managing social media tools” reference points.

Table 2.

Managing Social Media Tools: Source and Reference Numbers

Managing Social Media Tools	Sources	Number of References
Types of Posts	12	55
Using SM Make Sense	10	31
Implementing SM Tools	8	28
Evaluation	12	18
Describe Your Work	10	16
Tools	12	16
SM Policy	11	16
Innovation	6	14
Solving Crime	9	13
Police Community Relations	9	12
Increase Prestige	8	11

Eleven prominent findings emerged from the data analysis are presented in table 2. The first analysis focuses on response the participants had about push information related to their social media tools, particularly Facebook and Twitter.

Types of Posts

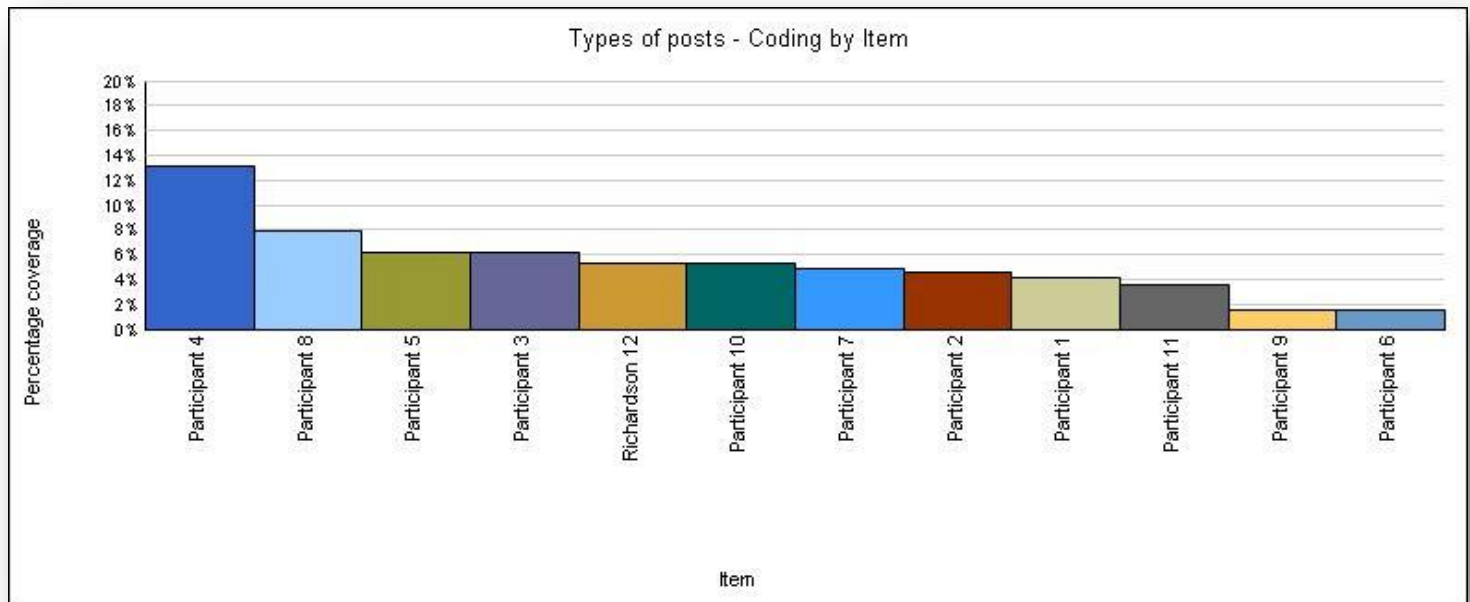


Figure 13. Managing social media tools: types of posts percentages.

Comments by the research participants noted that social media is becoming one of the main source to disseminate information to the public, especially to younger generation. The ways of pushing information to the public varies but use of social media appears to be a good first step. As seen in figure ten, all participants discussed what type of information they are posting in their platforms. Participant 1 said that:

We post all kinds of stuff. Like I said earlier, recruiting information, crime prevention tips. We have a weekly most wanted list that we put out on Twitter and Facebook. Plus we've located missing persons through social media. We also, on our YouTube channel, anytime we have a bank robbery, we'll post the surveillance video. And we've received information that, hey, we've caught bank robbery suspects or convenient store robbery suspects because somebody recognized the person in the YouTube video. So it's a great help, we've had a lot of success. And you can go through our Twitter feed and just see. I mean, we post accidents, because if we have to shut a roadway down, we want you to divert. Also for Dallas Cowboys, the football team, and the Texas Rangers baseball team, we will go out and post fan pictures of people having a good time, you know. So we want people not to see us as a rigid government bureaucracy, we want them to see us as "Hey,

they're real personable. They're tweeting out photos of people tailgating and having barbecue and stuff like that." And so we try to be real personable. We use it for all kinds of stuff.

Participant 12 briefly explained what kind of information they are sharing with their community:

Everything from crime trends crime prevention tips good stories about the police department if we make a good arrest or significant arrest we put out those types of stories.

Police departments use different social media tools dependings on the local popularity of the platforms and types of information posted on them. Along with the popular tools Facebook and Twitter, police also use YouTube channels for publishing videos, and Klout to measure the influence of the various of types of posts across department platforms. Participant 2 explained the differences in the platforms:

All the platforms are different. Of course twitter is more immediate information like traffic delays or going out to a call that involves media attention, so we're out there, we give out the media staging areas, you know, media information is Twitter. Now Facebook is more the touchy feely, warm fuzzy side of the police department. People who facebook sometimes they really don't twitter. And people who twitter don't really Facebook. You're getting that reach to people. And Nixle is where they have to actually sign up for it to get our alerts, advisories, and community postings. And Nixle is great because we also put, if there's going to be a road closure on there, or if we're missing someone and need their help, any kind of media release we put out to the media we also post on Nixle, and then they'll get it on their phone or via email. So each platform is a different audience.

Participant 3 and stressed the importance in real time information, particularly in sharing information with citizens:

We want to post any kind of relevant ongoing information if there is a current problem situation make sure the citizens are aware safety issue you know we want to make sure citizens have real time information like state safe or any upcoming events the city there were like the police department up that (Participant 3). Our primary goal is to try to give real time information out there such as crime that's going on right now, or other events such as the chief meeting people in the community (Participant 5).

Some participants shared useful links to inform and educate the community about key points. Here's what participant 4 had to say about sharing links:

I like to use links. This is the "tips for teens" that I got from netsmart.org, it's from the national missing and exploited children website. They allow you to share their information, so when you put their link in your status, it will bring up a thumbnail, and I sometimes like to add something. So this was shared through our office of emergency management regarding mosquitoes, which are bad here in Texas. So I shared what they posted.

Social media also supports traditional community policing via a kind of virtual community policing. Posting about community related issues helps followers see officers as more than just crime fighters but as members of the community. Participant 5 explained their department does this:

People won't always see the department as crime fighters, but as people who are trying to be in the neighborhood, or community police. So we always like to put community activities on there, because we are about the community. So we have an officer who's out there who's tweeting as she drives along and putting out information that the public might be interested in, or in the community trying to get the community aware of issues, listening to them, stuff like that. That's the kind of information we try to get out there. So public awareness and then community policing is the type of information we like to put on our Facebook.

Using Social Media (SM) Makes Sense

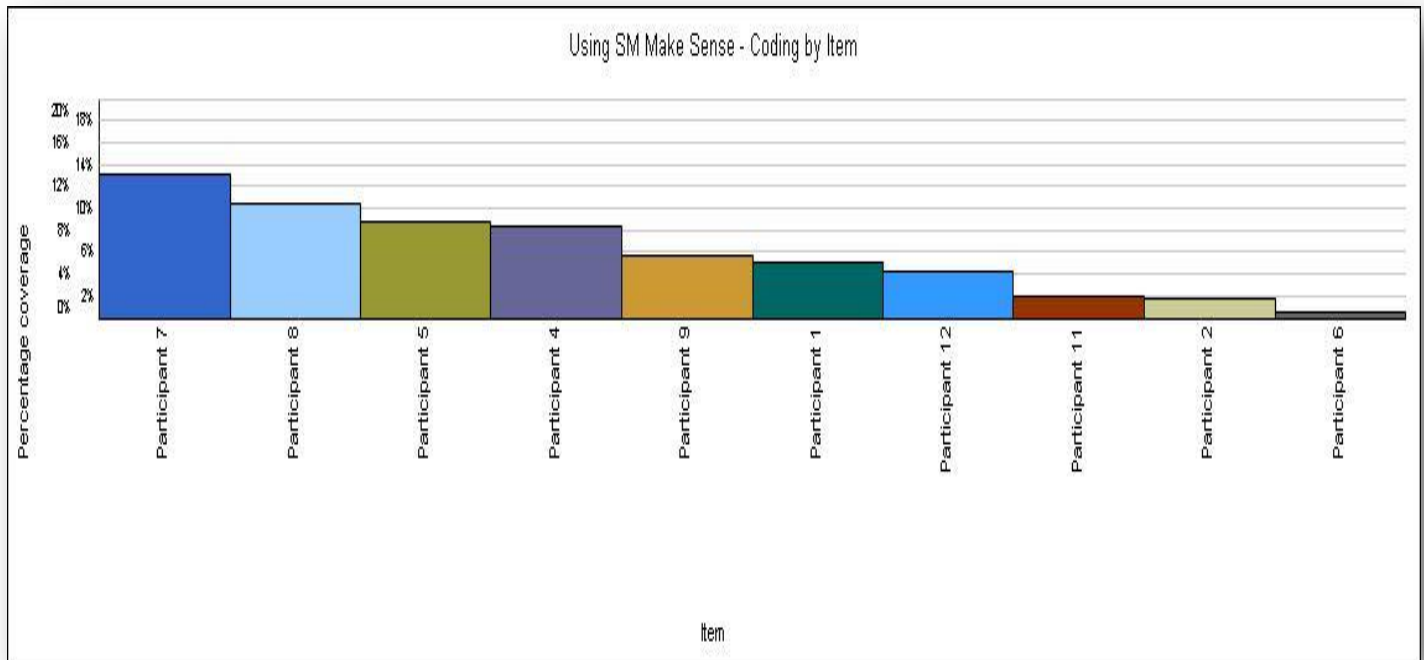


Figure 14. Managing social media tools: using SM makes sense percentages.

Social media platforms are changing the way we interact with each other with in communities. It enables often real time two-way communication opportunities that have not been available with traditional media. In this context, as seen from figure 14, except two participants, for all agreed of them, for all participants, agree that using social media for policing makes sense. Participant 1 explained how interaction through social media makes sense to reach the community and interact with the public.

I think it makes a lot of sense. And the reason I say that is, there is a certain segment of our population that doesn't watch the regular news. And they want to get their information from social media. And so we're able to reach that audience that normally wouldn't be able to reach, through social media. I think it makes a lot of sense. And we use it for everything. We'll post critical incidents, we'll post shootings, we'll post stories, we'll post crime prevention stories, we post our recruiting efforts--so we use it for

everything, our social media. And we do a lot of photographs, because it's one thing if I put a tweet out with just words. It's another if I attach a picture with it. People really like pictures. So we use it for all kinds of activities. Like I say, recruiting, for patrol operations--if I go to a critical incident, let's say we have an officer-involved shooting, I will actually tweet out to the media, "Hey, I'm going to meet you at this intersection." So I'm actually using it as a tool, telling our media where to meet us. So social media has really helped us to stay on the forefront as far as combating crime. Disseminating information much more quickly, like when we had tornadoes in April, we were able to push information out to the community very quickly. We were able to acknowledge that yes, there was a disaster, and this is what we're doing about it. So it's been very helpful

For those of people having not grown up it, social media is a new technology.

Participants 2 and 4 said:

At first, they didn't really understand it because it was so brand new, it was uncharted territory. Then they started seeing what we're utilizing it for and how we're trying to promote the good things that we do, promote the officers, you know, catching the criminals and arresting them, they start accepting it, you know, then they start feeding me stories, they start sending me emails. Hey, this is a good, you know, good job thing, and I'll post it. So now they're starting to get a little more involved with it (Participant 2). A lot of people who are not on board, it's because they don't understand the usage. They don't understand that it goes out to all these people, because once I post it and you share it, not only do our followers get it, but so do your friends. So it's understanding that concept, that it's getting out to a lot of people. Even though we have 10,000 followers, you may have 500 friends, so that's 10,500. And so it's just a matter of education, of learning to know what the importance is-how important it is(Participant 4).

Social media gives police the opportunity to public a chance to see the entire story rather than a narrow news clip. Participant 4 emphasized the importance of this concept related to a press conference:

The department doesn't want the public to perceive that we're trying to hide things from the public. The local media will put it out there, but they won't put the entire story, and we as a department want to put the entire story. We've had press conferences where the media will ask for press conference on an event, we record it also, and once it's done, we post the entire press conference on our pages, because when you see it on TV, you only see a clip of it. You don't see the entire thing, so as the public, you get to see the entire thing. You can see part of it on the news, but if you think, "Oh, that doesn't sound right," and if you're following something, you can go to that and see

the press conference. "Oh, okay, now I understand," because you see the entire press conference. So I think it's helped the public see the department in a different way.

Not only do social media help crime related issues, it also allows showing the human side of the policing. Participant 5 and 8 mentioned that:

I think we get disconnected from the community sometimes, and I think when you have a website or a Facebook page, just like the neighbor down the street has a Facebook page, it brings you a little bit closer and it humanizes you from a police point of view, with the community. They can relate to that. I think it just builds trust with your department and the community (Participant 5). That we have a more social service type functions. As to many of them only in contact with police on their bad side, when they have been arrested a lot of people never had any good report of meeting with police. So police always had to be on their that bad side, so it helps (Participant 8).

Social media can be used as an effective instrument to solve crime. According to participant 7, police increasingly uses these platforms for criminal activities:

It's just the knowledge that it's out there and that the people, instead of having 155 officers trying to solve a crime, or ten detectives, you've got 2,000 followers for Facebook that are gonna be able to help you locate that person. So that's one of the big deals is getting the detectives to be aware that there's a lot more eyes out there.

More and more people are now using social media. Police must adapt to this platform if they wish to effectively communicate with citizens and receive more support from their community. Participants 8 and 9 stated that:

We know that is the way that future is. You know if you are not involved in social media you can be left behind. The world is moving towards a paperless society going to a media. You know everything on computer. So we had to move with the economy, with the world as to how it revolving (Participant 8). We realized the trend of information was more from citizens going to a website, and the trend had shifted in technology to where information was coming to citizens, and that was through tools like social media platforms, and so that was one of the biggest trends that we were trying to stay on top of (Participant 9).

Social media is not only an interactive and instant tool but people can use social media while radio, TV and other traditional media are down or otherwise unavailable. Participant 8 indicated that:

You have to give people other avenues of learning about what is happening. You know sometimes TV is maybe down, the radio is maybe off and they still may have internet where they can get other type of information. You have to utilize everything that you can.

Implementing Social Media Tools

By implementing social media tools, police can increase the speed of learning process and make it more effective (figure 15). Although most participants stressed the application of these platforms, participants 4 and 6 placed the strongest emphasis on them. See Participant 6's explanation:

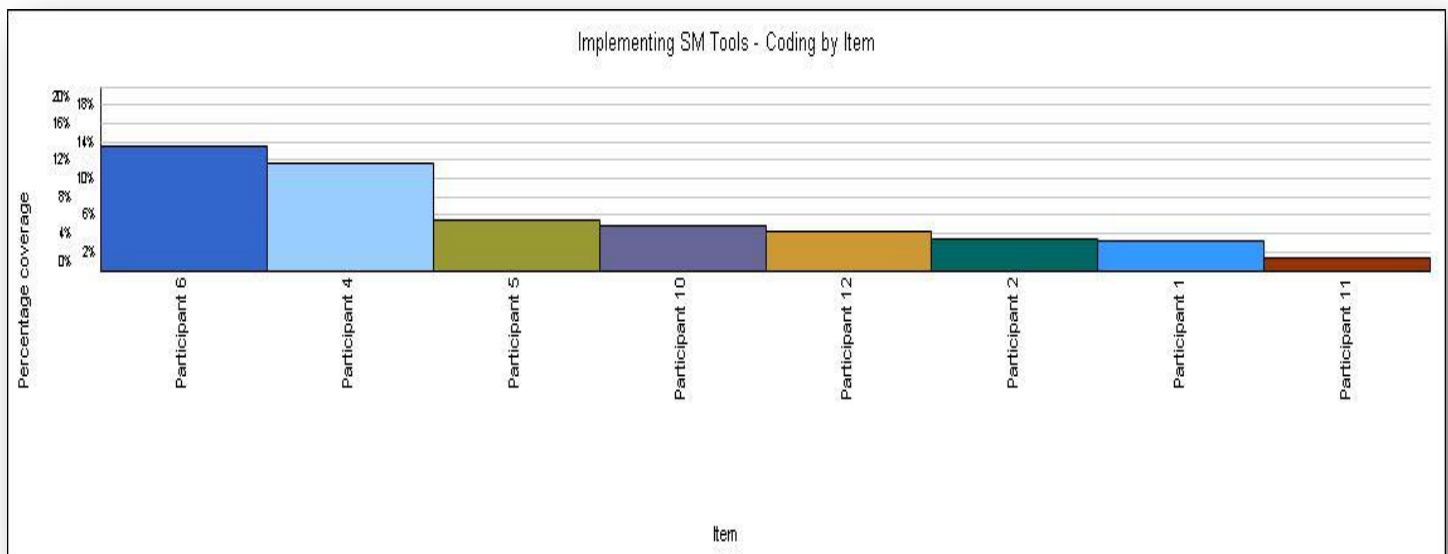


Figure 15. Managing social media tools: implementing social media tools percentages.

Participant 6 explained how they implementing their Facebook and Twitter account:

We'll put it on Facebook, and our Facebook and Twitter are interconnected so if we post it on Facebook, it also goes to our Twitter account. A lot of times we also have detectives who want to put video out to the public, to generate leads on cases, so they'll send us the

video and what they want on there and we'll also put that on Facebook and Twitter, It's primarily done out of this office. All of us are administrators on the department's Facebook page as well as the division's different Facebook pages, and we're the only ones who control the Twitter account. But each patrol division's Facebook pages; they also have an administrator within the patrol division who mostly controls the content on their pages.

Administration of the social media tools among police forces depends on the size of the department and number of the officers working in the media departments. Large police departments such as Dallas and Arlington employ more than one media officer to deal with social media tools. Medium and small-size police departments generally operate one officer for platforms. Participant 4 explained how they administrate social media tools in their department:

There are six of us - we're short one person, when they hire that person, we'll have seven people over all of the department pages. There are different stations that have their own Facebook page, so we are all administrators of those pages, plus that station has one person who is assigned to that page. Everything we post on Facebook automatically goes to Twitter. The way we have our Twitter, because we have seven people sending Tweets from one page, and everyone has access. That immediately tells me who tweeted it. If I tweet directly from twitter, I include my badge number. And this is a learning process for us - we just started including our badge numbers, because it allows our followers to know that it's more than one person tweeting. I may be tweeting about one event and Sherry may be tweeting about another, and this way there's no confusion.

Participants 1 and 2 explained the benefits of work sharing:

Everything else is my staff. There are four of us. There's one sergeant, that's me. We have another officer who carries a badge, she's sworn, and she's on vacation right now. She's actually our social media officer. Then we have two females who are civilians and they also help out. So it's four of us in this office, and the four of us keep up with Facebook and Twitter and YouTube and Nixle. And then the website, we actually have a research & development that handles our website. That's a separate department. So now, as a matter of fact, our Facebook now, we have the main PD Facebook, we also created the North, East, South, and West Facebook page, which is for the patrol district. So now we have 5 Facebook. We got the main PD, and then we've got the North PD, East PD, so they're starting to embrace it and they're starting to understand the importance of social media and how it's really beneficial to our department (Participant 1). Our unit expanded last August to 4 people. Where you got a Sergeant who oversees all the media operations,

you have XXX who is a civilian, who basically focuses on community outreach, and XXX she focuses on traditional media, and myself, who's dedicated to a lot of the social media. We all do social media, but my tasks mainly are in social media, so we were able to have one person to actually focus on all the social media platforms. That kind of started last September. I'll be home and look at my phone and go to Twitter and look at the interactions, you know, if you hit the @ Connect, I'll be at home and I'll be like, I'll hit the @ Connect, and I'll look at the feed to see who has a question for me or if they're commenting on something. If they comment on something, I usually try to respond say "Thank you, I appreciate it." Just so that way they know that we are, I am monitoring it, I am seeing what you're saying about us, and I appreciate you taking the time to do that, or retweet us (Participant 2).

Participant 11 was the only administrator of his department social media tools and he mentioned having a backup for his off days.

Our administrators even though they do not even do anything with our page that was set for because of something does happens to me they wanna have somebody available they can take over and be an administrator of the page. So myself and within the department my PIO coordinator and myself we are both actually administrators.

Participant 12 stressed how they manage their tools after normal working hours and weekends:

We service administrators to it just three. No one else in the department but we have responsibility that something happens. Even after hours on the weekend because our shift basically monitors Monday to Friday 8-5. Between one of the three of us we are responsible for getting those information out and we have our chief of police is one of our followers so he can see what we were doing however he is not in the administrator. We try to keep limit on that. If something very critical we do not typically post in the middle of the night. But if it was something that natural disaster type thing, some kind of very significant event where we have the post something after hours we were have been a few vocations where we put information out and what. We want to make our post real time and we want to make them important.

Differing from than others, participant 12's department for crime prevention managed social media tools as follows:

That would be our crime prevention office. We have three officers including our sergeant. We all three us together we back each other up make sure keeping it update

According to participant 4, neighborhood departments were a great source of information regarding how to manage the tools:

We have seen other departments. We look and see how they're utilizing it, and take some ideas from them.

Interestingly, participant 10 mentioned that their kids were a source for him to learn more about social media:

I am a beginner as far as using the social media network but I am learning a lot from not only my kids but also other departments head of in this fields.

Evaluation

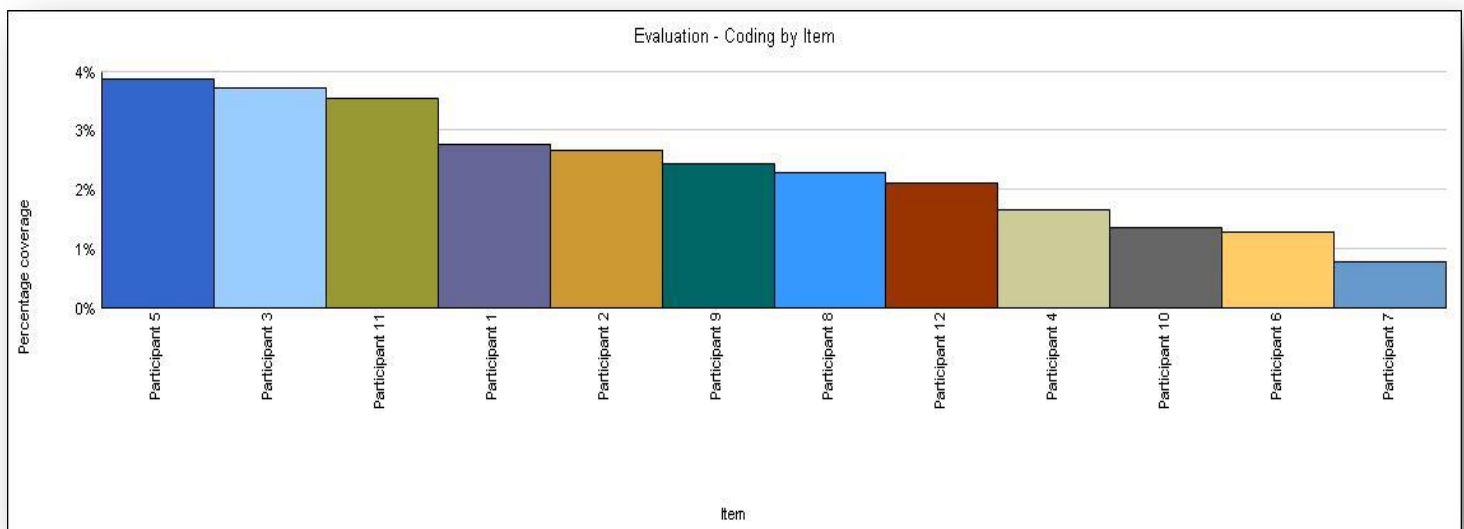


Figure 16. Managing social media tools: evaluation percentages.

As can be gathered from figure 16 that all participants conversed about their ideas for the evaluation of social media tools. Evaluation gives both administration and media officers important data about how effective of these of these platforms are. Participants 1 and said that:

We do monthly monitoring. Every month I send a report to the chief that says this is how many followers we've had and all that good stuff. And that kind of gives us a gage as to which we're engaging, what our target audiences are. We'll also meet, usually once a quarter, with community groups and ask them for feedback. And time and time again, they want more content. "Just keep doing what you're doing." So, that's kind of how we evaluate. It's kind of un-scientific process; it's not like a PhD type, scientific methodology to it. We just ask for feedback. And sometimes we get negative feedback. For example, some people on Tweet Along say "Hey, that's too many tweets, we don't like it." But 99% of them will say, "No, we really like it", and stuff like that (Participant 1). It's the key because if you want to build that relationship you need to be interactive. That's why I always check Twitter to see if anyone is sending us messages, or mentioning us so that way I can respond. And that way they know, hey, someone from Arlington is listening to me. To me, that is cool instead of "they don't really care". It just shows that we care and it's a more personable side. That's something we're working on right now to try to evaluate the effectiveness and try to get statistics on stuff. Like I said, I think that the interaction with people and the comments and everything like that, that shows me that we're being effective. But we're trying to get some more information on how exactly we can get it evaluated officially (Participant 2).

None of the departments had their platforms professionally evaluated at the time the interviews were conducted. Generally, each were evaluating with their own facilities themselves instead of using professionally designed social media monitoring tools such as Klout, Tweetreach, Google Insights, Alexa, etc. Participants 3, 7, 10 and 12 explained their departments' approach for the evaluation of social media tools:

We do in the fact that we are looking the see you know people responding our post Twitter gaining followers positive feedback that's gonna how we engage effectiveness right now just look at that feedback and seen people are watching this following this that is what our goal is (Participant 3). We take it by a by case scenario. We haven't had any real sit down and look at "has this been successful?" We, basically, look at it, like I said, a case by case (Participant 7). The only way I evaluate Facebook is they actually have a chart with in there to see how money people that messages have reached, how many people liked it and such but that's about all I use (Participant 10). We do, as a unit the department not so much. I keep my bosses aware of the following: that we have success stories and some of the hurtles, but official review or evaluation, no not yet because we are still very new. We are just coming to in our first year in. So, at some point we will develop an evaluations system; that putting our resources and the red spots how is this

compared to the other traditional way; e-mails and talk. But official an evaluation process has not occurred yet (Participant 12).

Participant 11 mentioned how difficult it is to effectively evaluate the tools:

You know, that is one of those things, sometimes it is very, very difficult to determine. Even if you have all the inside you can look at it and it can give you some direction on what working and what not working. We do look at that I do look at that on a regular basis to kind a see what do people seem to really react to and what they seen to really not have much interested in and I try to maintain most to my post according to what the public want to see.

SM Policy

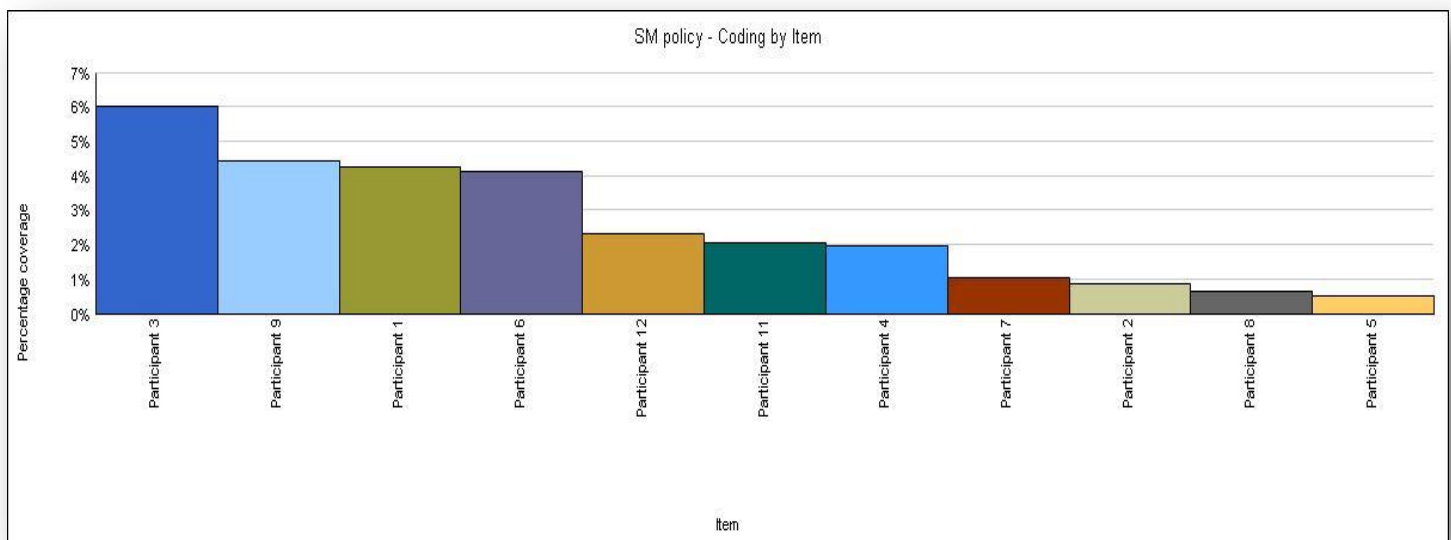


Figure 17. Managing social media tools: SM policy percentages.

Implementing an effective social media policy is an essential step for police agencies considering the implementation of social media into their department. It is a requirement order to provide responsible and effective use of social media tools for both officers and citizens. Most police departments have social media policies, some in the process of them crafting of them and others in the process of renewing them. As seen in figure 17, even though there was little

consistency in the presentation, all participants shared their ideas on social media policy.

Participant 3, 7, 8, 11 and 12 gave information about their department social media policy station.

We do have social media policy. We have had a city and department social media policy in place for a while. But officers personally use of social media but as far as ours department use of social media than we came on board that new push to months ago. We do have a social media policy that we put in place to starting this process, which how can we use what types of information go out who is responsible for that information. So we do policy in place (Participant 3). We have one in the works. It's still sitting at the chief's office letting him read over it and make sure it's beneficial to us and right, and as soon as he approves it, he'll sign, there'll be a full policy (Participant 7). We developed our policy before we ever launch of our social media tools (Participant 11). We are currently in the process of developing a social media policy specifically for the police department. Because it is still new, what can officers specifically use social media for off duty, entire of the officers so we work under the umbrella of the city's police and then building a specific policy right now it is on the works (Participant 12).

Social media policy is a defense for both departments and officer users. A well-written policy can reduce risk and increase productivity. Participant 1 implied the advantages of such a policy:

The policy puts everyone on the same playing field. And it also protects you against liability claims. For example, our policy will say that if a user continues to defame us on social media, we can block them. Well, if you don't have a policy, then that citizen can say, "Well why did you block me and you didn't block so-and-so?" So we actually have a policy that says, okay, the first time you get a warning, we will warn you, "Hey, you can't use profanity on Facebook." If they say, F you, I'll use whatever, then we're going to remove the comment and we're going to block you from Facebook. So the policy helps you. And then from an officer standpoint, it governs the officer's conduct. We don't want our officers out there posting inappropriate pictures, posting inappropriate comments. So the policy is to hold them accountable.

Police departments need to consider both personal and professional social media policies.

Participant 4 and 11 explained why departments have more than one policy for social media:

We have a general order for the officers on social media usage, then we have our post comment removal policy for our users, our fans. My lieutenant was also working on a

social media policy for within the department. I know part of it was completed but I don't know if it was fully completed (Participant 4). We have a policy, we have actually couple of different policies. We got a policy based on the officers and the way to they can use social media not only just a work you know as far as when they can use it work but also for the personal stuff (Participant 11).

Solving Crimes

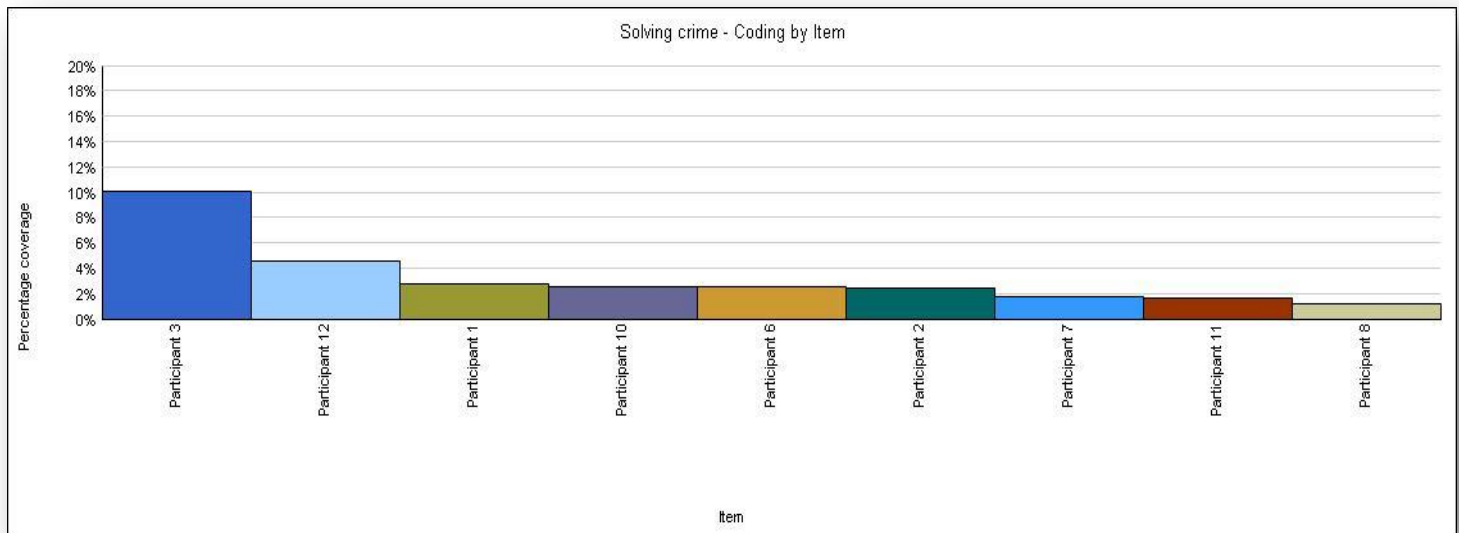


Figure 18. Managing social media tools: solving crime percentages.

Social media is the newest police source for solving crimes. Police gather public information about crimes by posting pictures of crimes to Facebook and uploading surveillance video to YouTube. As seen from figure 18, nine out of twelve participants stated ideas on solving crime. Below, participant 3, 6 and 11 stated how they use these platforms in fighting crimes.

I think obviously, it has been used a lot of agencies successful on that so I would hope that for us also it would be useful for us we would be able to use that to solve crimes that were having problems with trying to come to a resolution on. There are a lot of people out there and they have Facebook and Twitter, so reach those people and get out information, that would be great (Participant 3). We've gotten a lot of property crimes detectives lately; they have videos of burglaries and things like that. Homicide has used us a few times in the past. They've got videos. A lot of times, though, what they'll do is try to follow up on their leads first. And that's fine. If they've got nothing, they'll come down and want us to put it up (Participant 6). A lot of agencies out there use their Facebook page to try to solve crimes. They put information out there with photographs of

suspects' information regarding the crime that occurred to get tips. City of XXX is very important that we maintain a very good relationship with our community because our community they are our eyes and ears; those are the ones actually help us solve crimes. They put us in the right direction (Participant 11).

For some, the participant's role in using social media for solving crime is new; therefore, it has not been widely used. Participant 7, 8 and 12 explained their ideas:

It's still a work in progress for us, like I said. The detectives are so busy, that they don't always think about using social media. It's still in the infant stage, the baby stage. That they don't think about it. So I have to go in and approach them and say "Hey, we need to put this on Facebook." So it's still, it hasn't been used extensively, but hopefully in the next couple of years it will be (Participant 7). It is not used extensively and the only tool. A lot of it is just a great work of our detectives out there in the field. It is just a part of the investigation. They can help but it is not used extensively now (Participant 8). I think we will see that and social media is become more and more people release "Hey we can use this." Police departments can use it and I think more and more involving six months ago. The detective division was reaching out to us saying "Hey you put this information out after we share this information and so we are seeing that it taking sometime to see the results." I wish I could say we clear every robbery. There is a result of social media, but we have it so we take the baby steps (Participant 12).

Police-Community Relations

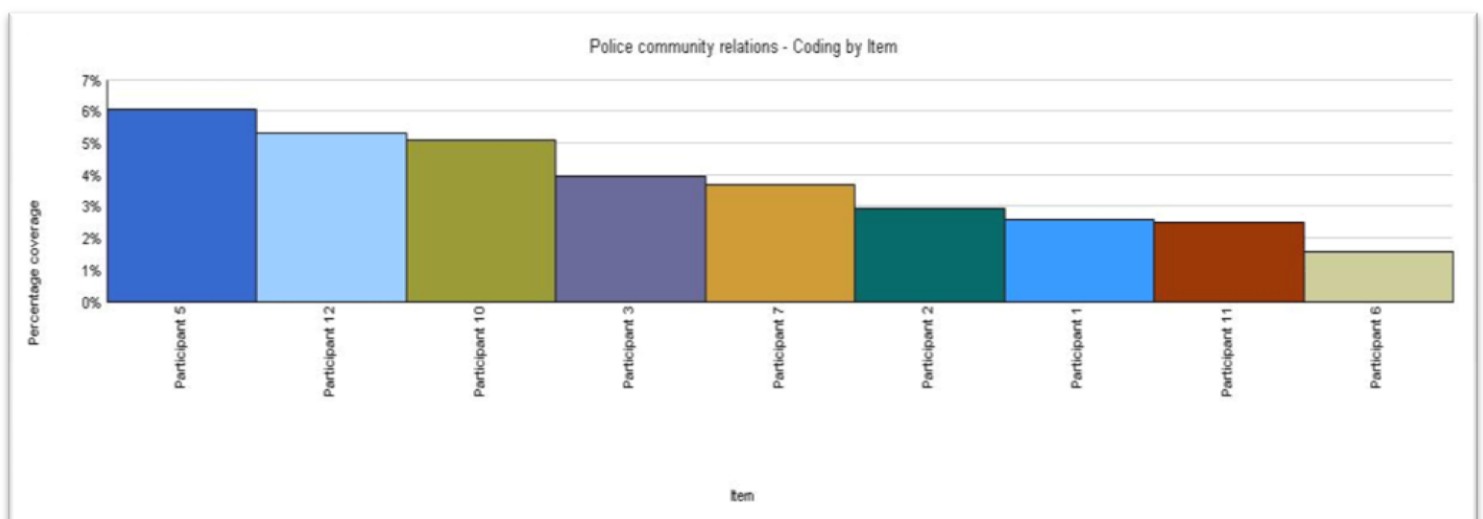


Figure 19. Managing social media tools: police community relations percentages.

Community outreach is one of the essential purposes of using social media in policing. Using social media significantly improved police-community relations. Including areas such as community assistance and crime prevention. For this node the NVivo analysis brought to light 15 codes. Comments provided by the participants 1, 10 and 12 clearly show that social media improve police-community relations.

It really enhances community relations because the citizens feel like they're part of a team. Because they can write stuff to us and we respond to them. And they're like, "Oh, that's cool. I've never..." Because a lot of them, they don't want to come up to a police officer in a car and knock on the window and be like, "Hey, can I talk to you?" But on social media, I can ask XXX PD, "Hey, what's going on? I saw a bunch of police cars at this address." And then we can respond and tell them, "Oh, well, there was a domestic disturbance" or "Oh, it was nothing to be worried about" or "Hey, we had a homicide there." So, it feels, it makes them feel like they're a part of the team, a part of the solution (Participant 1). This gives us a pro-active way to communicate with them. We can put out the information before they actually ask like with tweeting if there is significant events we can push that out with them no matter seconds and have all of our citizens that are following us have that information before they ever contact us which they appreciate because they do not have to ask us. So it is strength them the relationship we have with the community and it is getting bigger. Really, is getting bigger (Participant 10). When we have community events, this is another way that we can extend invitation to that event compare to traditional e-mail and stuff. If we were a part of our e-mail database it was very difficult for us to extend the name. Now, even if you do not follow us, you can go to our page and you can see the events that we have upcoming. Something is happening with in a particular community, a crime problem. That community can see firsthand what our respond is. They can see how we did not wait a week to address this crime problem, we addressed it very quickly, and then they can see that we have results "Hey, arrest has been made over there." We can share that so they can see. "OK police really did something about it more than just take a report" (Participant 12).

Social media give an opportunity to police to show the humanitarian face of police.

Statements of participant 3, 7 and 11 supported this finding:

These tools allows them interact with actually officers ears they are working, they have conversation, they can ask questions response back or just give feedback and allows maybe police officers appear more personable just they understand human being they feel like they able to go ask a question (Participant 3). It brings more interaction and it makes

it look that you're still a "human being." They see the man or woman in uniform carrying the gun and wearing the badge. And then on Facebook they don't know if it's a citizen, a civilian or an officer. And to be able to talk normal talk, not police lingo, but just normal talk, it opens up the gates a little bit more and they're able to talk to you as a normal person. So it's very beneficial that way too as far as community relations (Participant 7). Everybody thinks the police with the bad guys you know we always do is put people in jail and write tickets that is the perception of the police and we way bigger than that. That is the small portion of the what we do so it is kind of nice for officers to be able to see these stuffs and see these wonderful comments that our public is putting out there because they gives them a totally different perception of the way the community looks at them. Our community really does appreciated everything were doing and that is important for them because that makes them one of our work even harder(Participant 11).

Social media is also an easy way of receiving complaints or compliments from the citizens. Participant 5 and 12's responses clarified this point:

We have been get responses from the public you know about hey really appreciate "what this officer did for me." Before social media we may not receive that complement. So it gives public another way to compliment an officer for what the work he did as well which before they may not of taking the time to do (Participant 5). We're really pleased when we see positive information about a good arrest that we made. For example, the other day we had officers who were looking for a kidnap suspect, and they were able to give out vehicle information. The officers gave chase and they were able to apprehend the suspect. When you see good police work like that, the community really expressed their pleasure, "Good job, and officers." So we like that, that's positive feedback (participant 12)

Adoption Using Social Media

Table 3.

Adoption Using Social Media: Source and Reference Numbers.

Adoption Using Social Media	Sources	Number of References
Increasing followers	7	22
Reason for starting to use SM	6	19
Started using SM	12	13
Successful use of case	5	7
Administrative Support	5	6
Statistics	4	5
Training	4	5

"Adoption using social media" is the second theme exposed by NVivo analysis, stated by all 12 participants and references 74 times. Police departments are increasingly adopting social media usage. The research data strongly indicates that most of the participants had a high number of adoption issues. The most common adoption issues stated by the participants are increasing followers, reason for starting to use SM and started using SM.

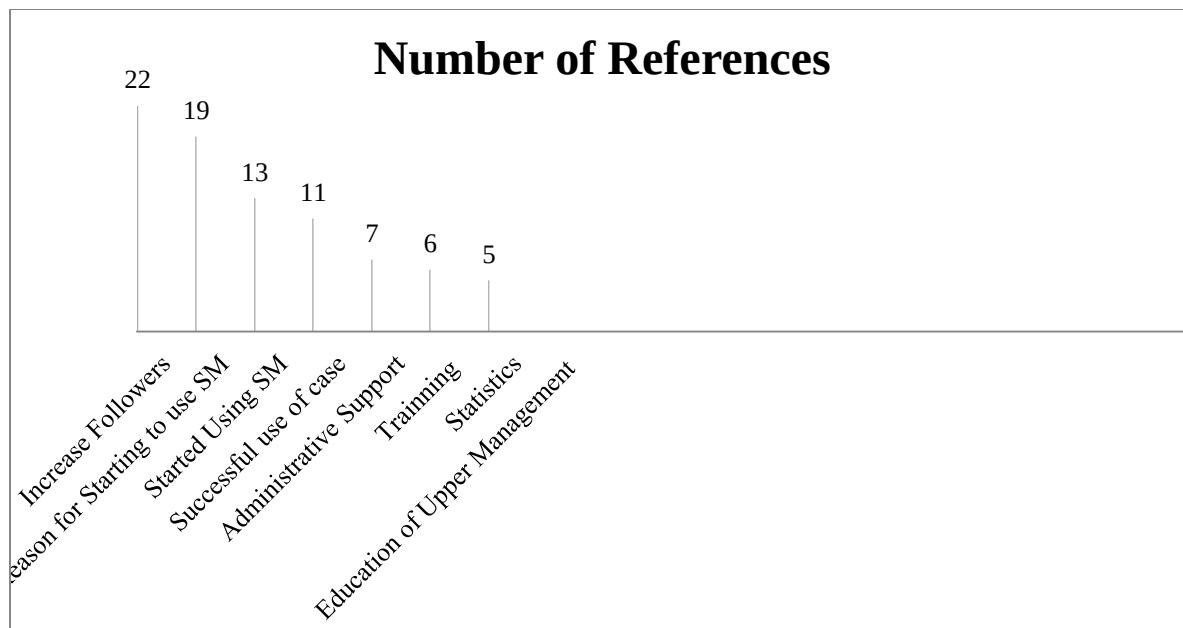


Figure 20. Adoption using social media: number of references.

Increasing Followers

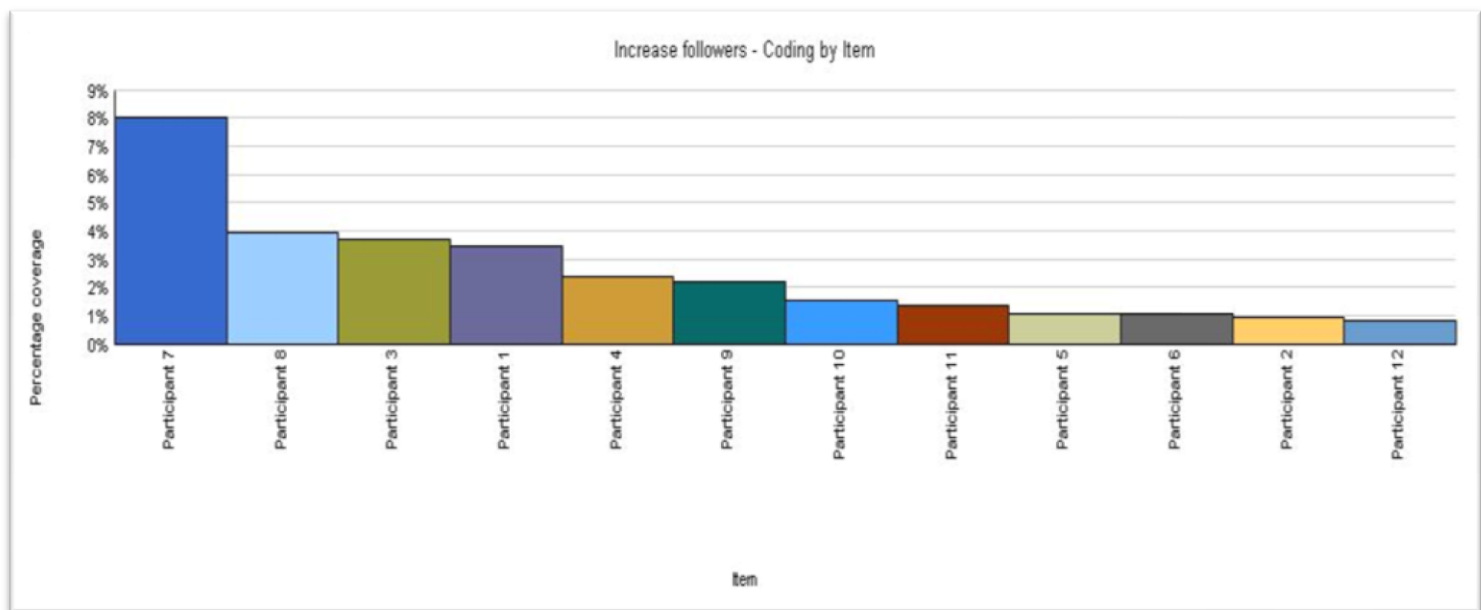


Figure 21. Adoption using social media: increases follower percentage.

As seen in figure 27, all participants mentioned their ideas on increasing the number of people following their pages on Facebook, Twitter, etc. Participants stated various ways to do this with participant 1 pointing to disseminating accurate information as the primary way to

increase the number of followers:

The key to getting people to come and like you and to write good things is to continually post stuff. If you create a Twitter account and you never post stuff, because there are several police departments out there, like xxx Police Department, I checked earlier, they haven't sent a tweet in over a year. And they only have 1,800 followers. That's why they only have 1,800 followers, because they're not putting anything out there. So I think the key to our success has been that we are really pushing information out. Every single day we try to at least do something on social media. So that really - the word spreads, you know. And so people are really able to stay connected. Plus I think people realize that we are the most accurate source of information. You can hear things on the TV and the media and this and that, but we're the most trusted source of information, so I think people come here to get that information. And that's been one of our keys, also.

Aside from continually posting and disseminating accurate information, successful use of tools increases not just fans and followers much assistance to request for information on crimes as well. Participant 1 emphasized that:

I know that we can reach more citizens if we are looking to get public help and solving a crime we go our local media

Participant 2 implied that to reach more people and increase fans and followers officer users need to find and implement innovative new ideas:

It's a challenge today, is trying to, how do you reach everyone else, you know, more followers. We're trying to come up with new innovative ideas to try to reach out there.

Officer users have used various ways to reach more people and increase fans and followers, advertisements in traditional media , bumper stickers for police cars, word of mouth during community events and generally encouraging people to follow their department on their various social media. Participant 4, 7 and 8 gave examples from their experience:

The chief himself was in a press conference, and he said "Follow me on Twitter and follow the department on Twitter." We make bumper stickers for our squad cars. Not all of them have them, but some do. When we decide to have community events, I like to pass these out, because if you have your average citizen who follows you and supports

your police department put this on their car, someone may be driving along and say, "Hey, that's a good idea." (Participant 4). When we started it, we did a press release and put it on the media, on the news and radio and print, newspapers. I tend to do is I hit the apartment complexes. I like them, tell them to like us back, and by the way, let all your residents know that we have a Facebook page, we have a Twitter page. They can get valuable information from us (Participant 7). We just, the police department has a lot of community groups. Sometimes we will go to community and we will encourage them to follow us on Facebook (Participant 8).

One of the few good results from highly publicized tragedies is that people search out their local police departments' social media pages. They want the most current and accurate information about the event and become followers in order to stay on top of it, as shown in participant 7's description of the Aurora, Colorado shooting tragedy below:

I'm always trying to get them to follow us, but it's hard because why do I need them? Until that time that they need them, they need to look up something, that's when they tend to like us. For instance, Aurora, Colorado, when they had the shooting at the movie theater a few months ago? Their Twitter page had 1.000 followers prior to that day. That night that the shooting occurred, after that, they had 9.000 followers. One major incident gained them 8.000 new followers. It's unfortunate that an incident like a shooting at a movie theater is going to gain new followers. But it does. People want to know what is going on. What's happening? Where can I get that information? Is Johnny hurt? Can you tell me who's hurt? That's where they go to for the information. Knock on wood it doesn't happen here, but if it does happen here, I have a feeling that our followers on Twitter and Facebook will jump leaps and bounds. Because they're wanting that information.

Participant 9 simplified the above to the fact that when they post credible and relevant information it brings in more fans and followers to their pages:

If you're putting out information that's relevant to your citizens, they will follow you. If you're putting out information during a crisis that's relevant, they will follow you. That's all you really need to worry about, is putting out credible information and helping the citizens when they need it.

Reasons for Starting to Use Social Media

There is an increasing trend towards using social media in communities as these tools are

providing new ways to help police solve crimes and connect with citizens. In this study, participants stated that they used various perspectives to justify employing social media in their departments. For instance, participant 12 they wanted a way to reach the younger generation:

We realize that it is the way people are starting to receive the information. We needed away to reach a younger demographic the people that are using smart phones. We realize that the public is really want to getting information so we thought that it is important for us to be able to reach out to those people by using social media.

After attending several different training courses, participant 11 was better able to recognize the importance of social media:

Going to a lot of different training classes, we are finding that there have been some very positive results from other agencies using Facebook. We kind of wait the positive. Basically, to determine this was something in that, you know, this is an area we could communicate further with our public: just one more avenue for us to communicate with our public. So we decided to go ahead give it a try.

Using social media tools is a fast and easy way for both citizens and police to communicate each other. Participant 4 and 7 and 8 expressed its necessity as follows:

Most people are now on social media sites, so it's a way to get information out to everyone. Nowadays we don't have to depend on regular media. We can use social media, so that's why we decided to use it, because if there's no discretion as far as age groups, we have older people and teens and young adults using social media sites. People may not want to call in if they see something, but it's easier to just type a private message to us, or to post something. We direct them on how they can address concerns within their community (participant 4). We just felt that it was time to start using it. Social media being the new up and coming thing, we did some research on it, I did some research, I showed it to my captain and said, "What do you think? It's going to stay here. We can use it for tools as far as finding suspects, victims, whatever the situation may be." They approved it, said, "Let's go with it, and let's start it." (Participant 7). We saw that was the way, that we are able to get communication out to individuals because we are moving into a social media age. Not just by e-mail any more or television we had to go forward to social to public norm was going to which was Twitter, now they are going to Facebook So we had to get on board all of those avenues in order to get messages about the police department and to be very quick and precise (Participant 8).

Administrative Support

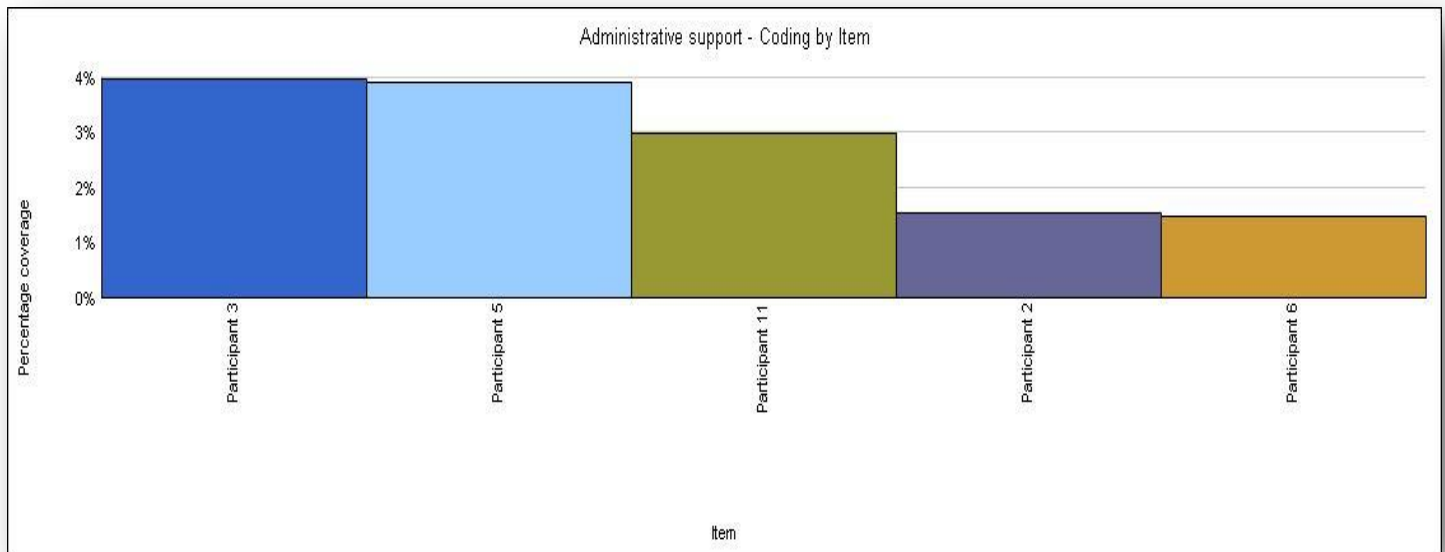


Figure 22. Adoption using social media: administrative support percentage.

It is perhaps easier and simpler to implement and innovate within a formal and hierarchical workplace environment when there is support from the administration. Generally, participants stated receiving administrative support when they started to use their departments' social media tools, as noted in figure 23. Participant 3, 5 and 6 expressed the administrative support they received:

They are very supportive we want to this for a while but we just start we did a presentation to executive team and chief they are all on board with it. They are exited and they want to see what is going on anything good for department good for them so departments make good it makes them good (Participant 3). Social media seems to be the new way, and so our chief of police wants to make sure we bring social media to the 21st century just like everybody else and use it to our advantage to get information out there to citizens so we can build a trust. He is what's fueling it. He really believes in social media. And again, we know our audience, like for people who watch the news are generally older people. But if we want to reach younger individuals, then we have to go through social media, because we'll reach our younger audience and let them be aware of crime and what's going on. So he's big on social media (Participant 5). Our chief really wants us to use social media a lot more. He and Chief XXX, our media one, they're really on board with it. They actually want us tweeting more and doing more with it (Participant 6).

There would be slight administrative barriers to the adoption of social media usage in policing. Participant 11 described what he/she believed was the best way to overcome this problem to educate them:

Our Chief is a little bit has about social media. First, because he does not have a Facebook page and he does not real have knowledge about Facebook. Because I actually took a hand, this is an area that I think we are missing out on it and I think we need to be here. And he is a say that one he send me a lot of training. He goes, "I want to explore every option, I want to make sure if we are going to do this we are going to do right." And since that time we put it out there, he actually because he is the chief of police, goes to a lot of different events day and nights for different things. And he has even comments about our Facebook page so has been very, very supportive about it and it has been very positive for us (participant 11).

Successful use of Cases

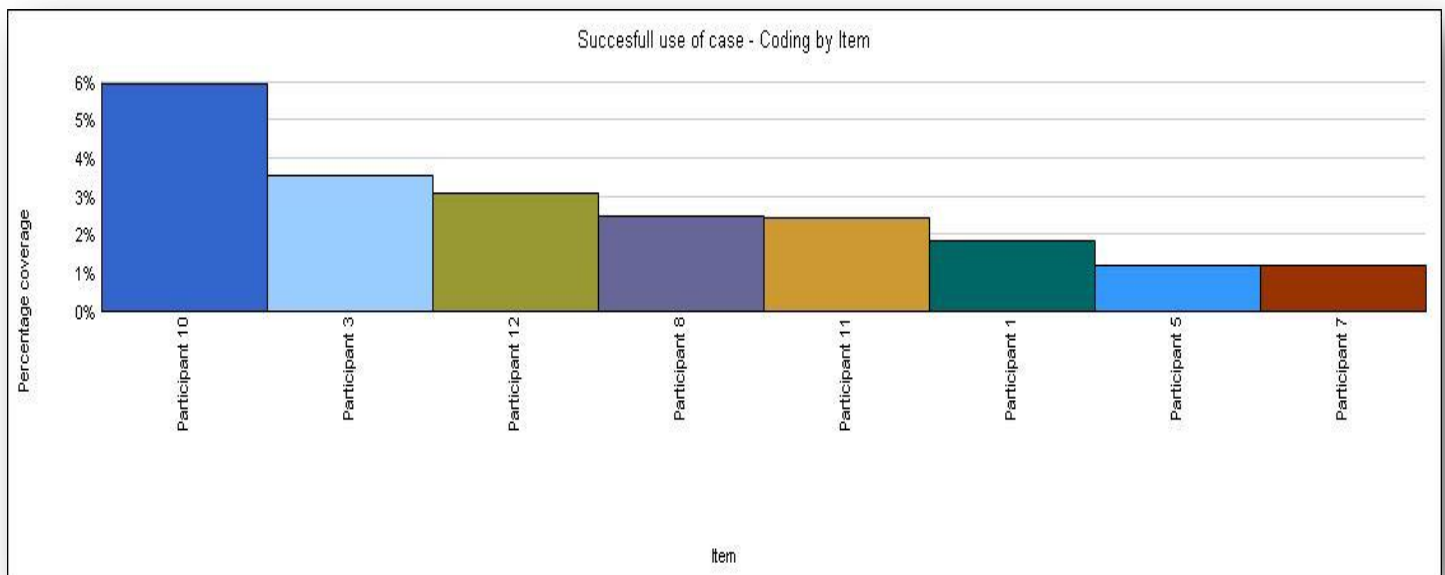


Figure 23. Adoption using social media: successful use of cases percentage.

As seen in figure 24, eight out of twelve participants' statements coded as useful case studies that highlighted the successful use of social media in policing. Participant 7 stated the success as follow:

We started posting people who are wanted on our Facebook page, who have warrants for their arrest. When we did that within 24 hours, we had already arrested eight people that people turned them in, "this is where that person is." It's very helpful, beneficial for us.

Participant 1 gave an example of public assistance used to arrest someone on the most wanted list in a local store:

We have a weekly most wanted list that we put out on Twitter and Facebook. And there have been occasions, and one in particular, where a female that was on the most wanted list was recognized at Chuck E Cheese, which is a pizza place, and citizens saw our post on social media. So they actually logged into the live chat, they didn't even call us. They logged into the live chat saying, "Hey, I recognize her. She's at Chuck E Cheese." Officers were able to go grab her before she got away. So that comes to mind.

Another successful use of case stated by participant 10 refers to two suspects wanted for armed robbery resulting in their arrest:

In the south of our city we had a robbery that had occurred to where the neighbors down there. We are on social media page. So when this robbery occurred, we asked, we tweeted and we sent something on Facebook for the public's help in trying to find the person that committed this robbery. Two people contacted with us. One based on that feed one of whom which was took a picture of a suspicious car, which just by chance was the person's car that did the robbery. There were two of whom. So he can use his phone to call the guy that was in the car. So based on those two links we were able to further investigation which lead to the arrest of two subjects that were involved of armed robbery.

Participant 12 expressed a robbery case where an officer made a police arrested suspect via the help of citizens:

We had a robbery occurred at one of the small convenient store over of the west side of the town and the video surveillance captured. You know the incident occurred so we took those images of the suspect time and the location. Everything we put there on facebook and we got a response from somebody who recognized the guy. Gave the detectives the name and information and resulted in being captured and arrested. And it was a younger high school age person so the video was very good quality. The investigators kind of exhausted lots of other means and lots of time in the big media markets like this. You

know, no shots fired, no blood. The news maybe not around that. So, we tried this and it was successful.

Training

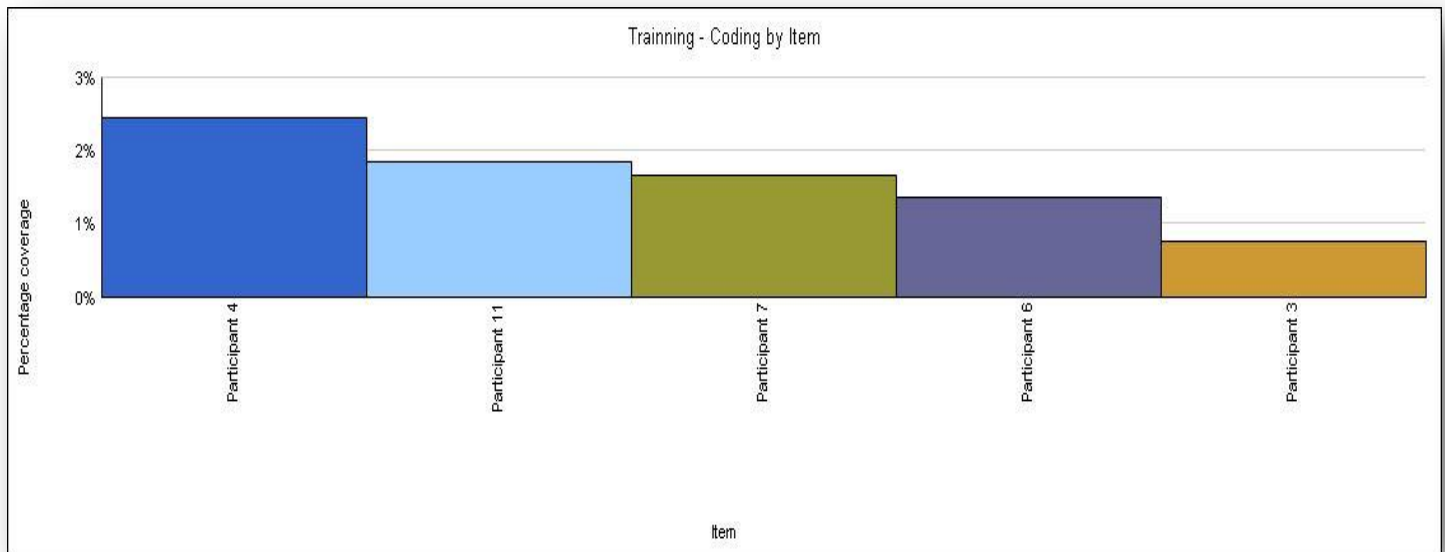


Figure 24. Adoption using social media: training percentage.

Seven out of twelve participants had attended training program (see figure 25), which for most included the Social Media the Internet and Law Enforcement (SMILE) conference, a three-day event that focuses on the use of social media to improve law-enforcement agencies.

Participants 4 and 7 stated the importance of the SMILE conference as follow:

We did host a small conference; I actually have lately gotten requests for us to try to host it again, because it is a big and an important conference. I enjoyed it when I attended in Chicago, and then when I brought it to Dallas, I pretty much worked it and was in the background. I've been SMILE conference, it is about social media for law enforcement, and there's one currently going on right now in Richmond VA (Participant 4). I've used Facebook before, I've used Twitter personally, so I already knew how to use it, but as true, sit down, "here's how you do this, here's how you do that" for social media...no. That conference obviously does make sense for law enforcement, not only in the US but in other countries, too (Participant 7).

Challenges

The last category that I analyzed was a category that I called “challenges.” I identified this as a set of reference points that explain how the research participants saw challenges when they use social media tools, particularly Facebook and Twitter, in the city police departments. These references included: inappropriate comments, 24 hours monitoring, privacy, new technologies, negative effect on investigations, what percent are you, , etc. (see Appendix ... F for a complete list of references). These references were coding in the participants’ writing data and analyzed within a theme defined as “challenges.” Figure 26 shows these results.

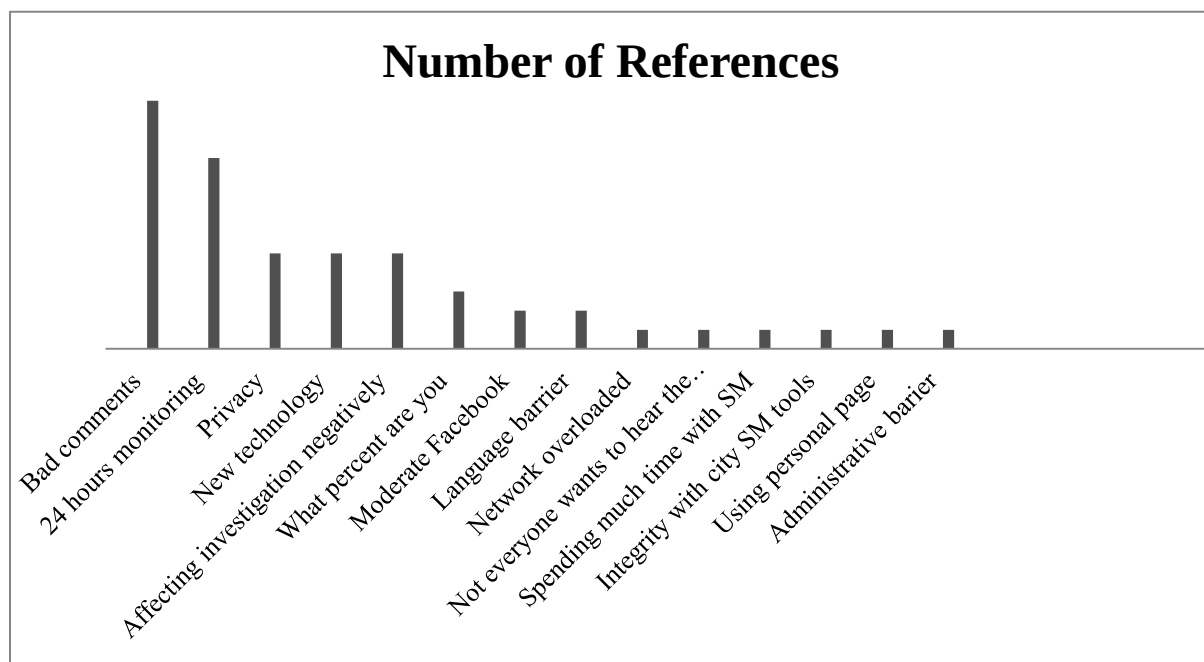


Figure 25. Challenges: number of references.

The research data strongly indicates that most participants had encountered both a high number of challenges and barriers to employing social media effectively, but a wide variety of those problems with the large majority going to inappropriate comments, 24/7 monitoring, privacy, and new technologies.

Table 4.

Challenges: Source and Reference Numbers

Challenges	Sources	Number of References
Bad Comments	9	13
7/24 Monitoring	7	10
Privacy	3	5
New Technologies	5	5
Affecting investigation negatively	4	5
What Percent Are You	2	3
Moderate Facebook	1	2
Language barriers	1	2

Inappropriate Comments

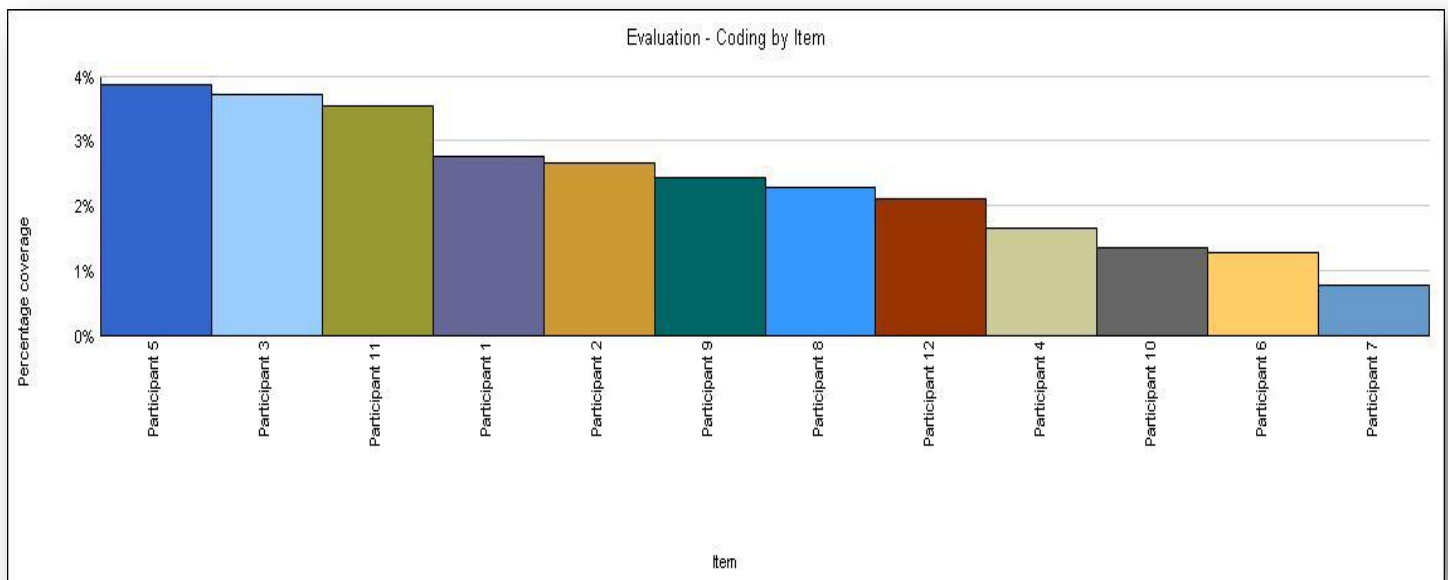


Figure 26. Challenges: Inappropriate comments percentages.

The main challenges for officer users are inappropriate comments (figure 27) because they do not have direct control over Twitter and Facebook. The comment box shows every post on a department's social media pages. Departments all create "Post comments removal policy" to remove as soon as feasible any postings that include foul language or derogatory comments. As seen figure 26, all participants share similar ideas on inappropriate comments. Participants 4, 6, 7 and 11 shared memories statements in the text were simply memories how they removed inappropriate comments from their departments Facebook and Twitter pages:

From time to time, I remind everyone that we do have a post comment removal policy. I'll post that as our status, especially if we start getting a lot of comments with profanity, or regarding race or gender. That way they can't say, "Oh, you're deleting my posts--" We let them know that we will delete if it matches any of this criteria (Participant 4). You're going to get some negative stuff, and we have a comment removal policy on our Facebook page--you can't call names or whatever, and it's subject to--your comments can be deleted (Participant 6). A lot of police are concerned about that. If there is, then if they violate the terms of conditions somewhere in their comment, I'll send them a post that it

violates the terms and conditions that the City of Denton has set forth on our social media policies. That it's going to be taken down, that they're more than welcome to repost as long as it doesn't violate those terms and conditions. If it does, then they'll be removed again and they'll be banned from our Facebook and Twitter page (Participant 7). I have got very strict term and conditions that anybody that post the comment it must be related whatever posting is up there you cannot use any profanity you cannot sit there and personally attack any individual I do not care if it is a police officer or citizen I am not going to sit and allow to do this. In my terms and conditions I will respectfully to ask you to remove your post and I will give you certain amount a time a reasonable time to remove your post If you do not then I will take a screen shot of your post then I will deleted on myself I will remove it (participant 11).

Participant 9 in saying that Facebook's policies on removing negative comments was better than anything they would come up with.

It's not against our terms and conditions to use bad words, that's against Facebook's terms and conditions. So, one of the big challenges that I had to show my attorney was "Look, we don't have to rewrite Facebook's policy. If they violate Facebook's policy we have every right to delete it based on their policy, not on ours."

Police are careful to respect their followers' freedom of expression and to support their transparency:

If somebody goes on our Facebook and posts a negative comment, we usually will let it stand because we don't want it to be viewed as if we're censoring their free speech. if you censor people's comments on Facebook, you're going to cause more people to get upset, because they're going to think you are censoring their free speech. So we typically just don't do that (Participant 1). We try to be as transparent as we can be, we even put that on there and that never really gets a positive reaction. It's always like, "Yeah, you cops are all stealing or whatever, or you're always drunk," and you have to take the good with the bad. But the good always outweighs the bad. If you go on our site, you can read all the positive things. But we have to accept some of the bad things. It's part of the business (Participant 5)

24/7 Monitoring

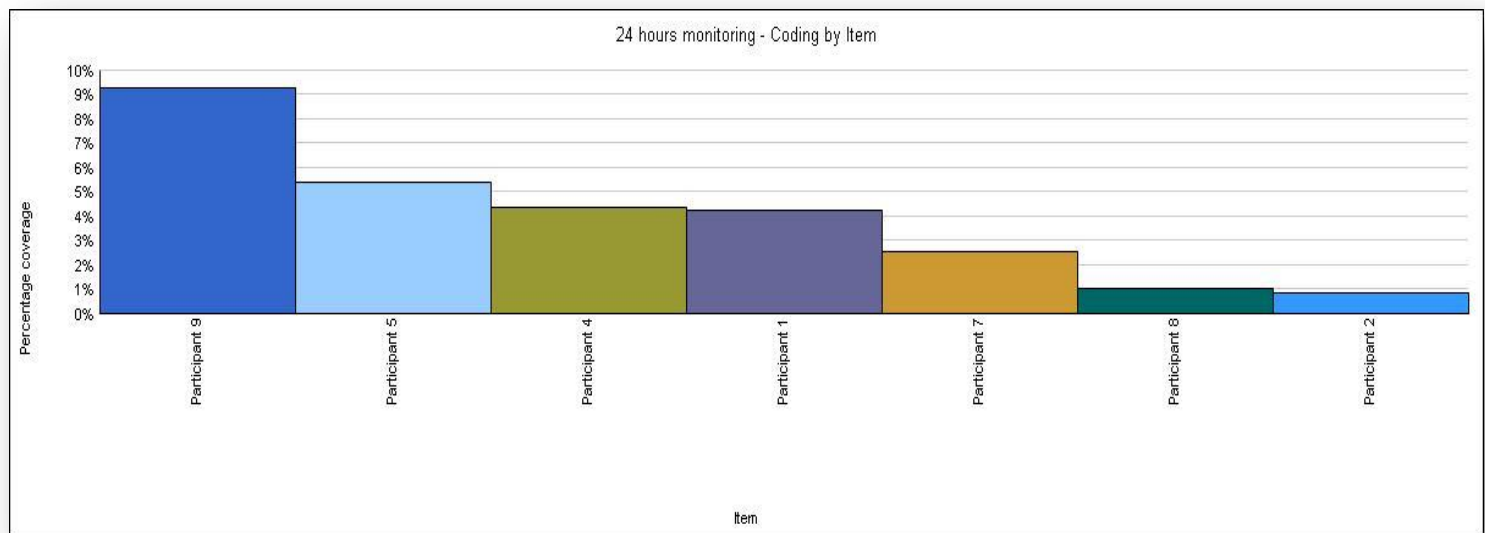


Figure 27: Challenges: 24 hours monitoring Percentage.

Social media is active 24 hours a day seven days a week and if it is not monitored 24/7 by department staff problems are slipping through the cracks, one of the main obstacles for using social media in policing is that it requires monitoring 24 hours a day. As seen in figure 28, seven out of twelve participants' statements coded for constant monitoring. Participant 1, 5 and 7 summed up the challenge of 24 hours monitoring well:

If you're going to do social media, you have to have somebody monitoring it 24 hours a day. Because if you're a citizen and you follow us and you send a question you don't want to wait another day or two before somebody answers your questions. So somebody's got to always be monitoring it (Participant 1). I think the challenge for me to charge a person for 24 hours because social media is active for 24 hours. It's only open while we're here working (Participant 5). Social media is 24 hours and it's not easy to moderate the walls. It's not. I leave here at 5pm (Participant 7).

Unfortunately, many departments cannot monitor these tools 24/7. Many officers have tried to make up the difference by placing themselves on call or simply letting it wait until they can get to it. See participants 1, 4, 5 and 7 below:

And we know that we can only work our employees 40 hours a week. And so how do we do that? We just try to, between all four of us in this office we check about once an hour, between us. We just check while we're off. And so a lot of times we'll respond in our off time (Participant 1). If we have a major event that occurs, that needs to be on the media site, we have on call officers. Everyone here in the office shares callbacks. For example, I go on call on the 30th through the 6th. So during that week, if I have a major event that poses a need for me to post it on social media, the person who's on call is responsible for doing that. If it's taking something down or removing a post, we all have email capability on our work phones, our blackberries, so if I see something that needs to be removed when I'm not on call, me personally, I have my own iPad and my own iPhone, and for me they're easier to use. So I log on and remove that post. I know that it's my project that I monitor pretty much on my own basis. Sometimes I deal with something, and as soon as I get to work I'll delete it. If my lieutenant gets an email, he'll say, "Hey, can someone delete this?" So we all have the ability to do it (Participant 4). If there are some major events, like if an officer is arrested or something like that in the evening time, we might have to gather that information and put it on Facebook quickly. We generally get phone calls about that. Again, it's our effort to make sure we reach our fans and followers first with that information, and then we give it to the media next. So that can be a challenge too, because your mind is always going, and I think when you leave work, you've really got to step away from work, and not always think of social media or things to tweet. But they want us to start heading in that direction, so that would be a challenge (Participant 5). I'll jump back on right before I go to bed, around 10 pm. I'll check it every once in awhile. It's attached to my e-mail, and I've got e-mail on my phone, like you do, and all that, and I'll check it periodically. But yeah, there's a six hour period that it's not monitored, which first thing in the morning, I get on there, I look to see if anything's changed, if there's something that needs to be taken down or dealt with. We've had no problems with it right now (Participant 7).

Social Media is a New Technology

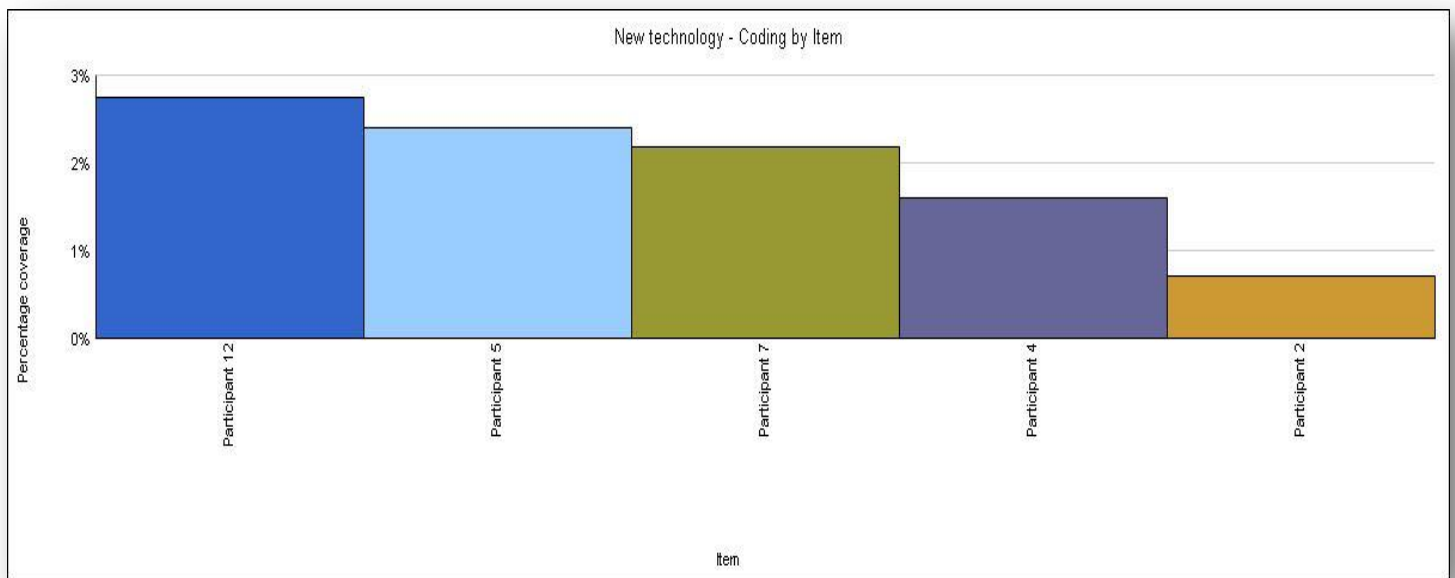


Figure 28. Challenges: new technology percentage.

Social media is a new technology and relatively few members of the community have integrated into their daily lives. Some officers and citizens are slower to adopt new technologies. As seen in figure 29, five out of twelve participants' statements coded that new technology is a challenge for several participants, including 2, 5 and 7 below:

It was so new; they didn't know what it was about. Then we tried to educate them and then they see it. So now, they're pretty supportive (Participant 2). The challenges that we had I think we're overcoming now. Some of us are not social media friendly, like I had a Facebook page, but I never got into it. I think learning to do things in the 21st century style of policing--you can't teach the old dog new tricks, well you've got to teach us new tricks, because this is the way of the future. So that's the only challenge we've had (Participant 5). Just the fact that it's new, social media has not been around very long. Not wanting to get all the information out all the time, they're not used to seeing it as a tool to use. So just trying to get them to realize, it's there, let's use it. That's the biggest challenge that I have as the person who oversees the social media, is letting people know that it's a tool for us to use, let's use it in a way that we can solve a crime. That's the biggest challenge that I have. It is very new and many people don't know the police department uses it for criminal activities. If they knew it, I think they would follow (Participant 7).

Negative Effect on Investigation

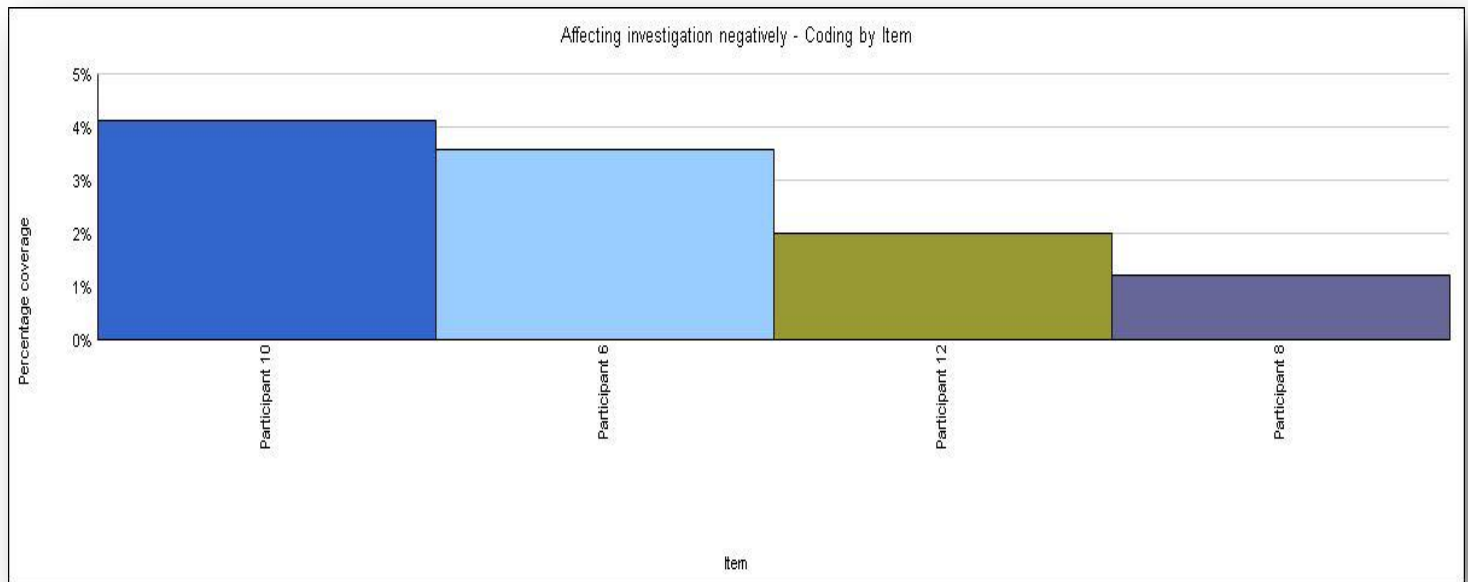


Figure 29. Challenges: negative effect on investigation percentage.

Protecting the integrity of an investigation is essential. Posting about an ongoing criminal investigation could easily destroy a case; therefore, officers users should be careful when using social media tools. In figure 30, four out of twelve participants share their ideas on this node.

Participants 6 and 10 expressed their fears as follows:

Another challenge is putting too much out there. Let's say we have an arrest, a pretty good arrest that generates a lot of public interest. You put some things out there on social media, and the public likes seeing things like that, but the cases don't end with an arrest, there's still prosecution. So we've got to balance how much we put out there so that later on in court the defense can't pull all this stuff that shouldn't be out there and use it against us (Participant 6). That putting something out that should not have been put out which is one of my biggest fears to where something happens. And I put it out as far as a name of a suspect and the person investigating that offence say "lawyer you did not put that name out." The biggest fear, that I am going to sending something out that should not be sending out and it can destroy this case. But, they trust me. And the same aspect, while you know what to put out and what to not put out importantly, be careful. So there is like checks and balances is that I run to before I hit send (Participant 10).

Very few Followers

According to participants' statements, another important barrier to social media usage in policing is that the followers represent a very low percentage of the entire city's population. Some citizens do use social media, as they do not have a computer, as participant 8 and 12 explained:

So, we have to keep in mind that they're going to be individuals that never go to social media. Because they are elderly people some of them young but a lot of are elderly people they do not have computers. They are not going to social media so we have to still, continue to meet with those individuals so we let them know, you know, on our YouTube, on our Twitter, that we have Facebook, on our web page, we let them know (Participant 8). Where city have hundred thousand people in there like where you only have fourteen hundred followers. Where is the other 97,000 plus? So, because they look at numbers and we are all in hit in less than 2% and I argue back with that you know just the people are following you if you look at the total number of the people that we have reached you are hitting another significantly larger thing. That has been hurdle because everybody looking for attend able results how many crimes did you solve by using this, how many people did you reach? This is the tools just many others in the world crime prevention that it is important but you cannot always measure it. So one of the other challenges is can you hit all the demographics there is no adult teenagers use social media 30-40 years old social media this community has a large senior population (Participant 12)

Analysis of Online Observations of the Police Departments' Social Media Tools

Online observations were taken of the activity posted on each of the nine departments' social media pages, in particular Facebook and Twitter, over three month period. These provided the opportunity to explore: how police departments use social media to solve crimes, how to better communicate, protect and inform the community, and to reveal challenges and barriers related to their use. Through the same social media tools, the researcher engaged in online observations of all social media postings made by the nine police departments.

In this research, online observation played an essential role in understanding social media usage in policing. The researcher observed nine police department social media tools, in particular, Facebook and Twitter, in the DFW area principal police departments. In the table 5, the postings are categorized by the following: soliciting tips from public, wanted persons, police-community relations, missing persons, crime prevention tips, , security-safety tips, department news, traffic tips, and public information.

In this section, the researcher discussed each category, by briefly describing the post and with examples from the departments' tools

Table 5.

Police Departments Observed via Social Media Tools during Three Month Period.

TYPES OF ANNOUNCEMENTS DURING THE ONE MONTH OBSERVATION	P O L I C E D E P A R T M E N T S									
		Dept. 1	Dept. 2	Dept. 3	Dept. 4	Dept. 5	Dept. 6	Dept. 7	Dept. 8	Dept. 9
	Soliciting tips from public									
	Wanted persons									
	Police-community activities									
	Missing Persons									
	Crime prevention tips									
	Security-safety tips									
	Department news									
	Traffic tips									
	Public information									

Soliciting tips from Public

Seven out of nine of the departments requested assistance from citizens in order to catch criminals and solve crimes during the three-month observation period. The main tool was Facebook. Facebook has more than simply messages in its design as one can also post pictures and videos, lending it both ease-use and multiple options. For this reason, most departments used Facebook more frequently than Twitter for soliciting tips from the public.

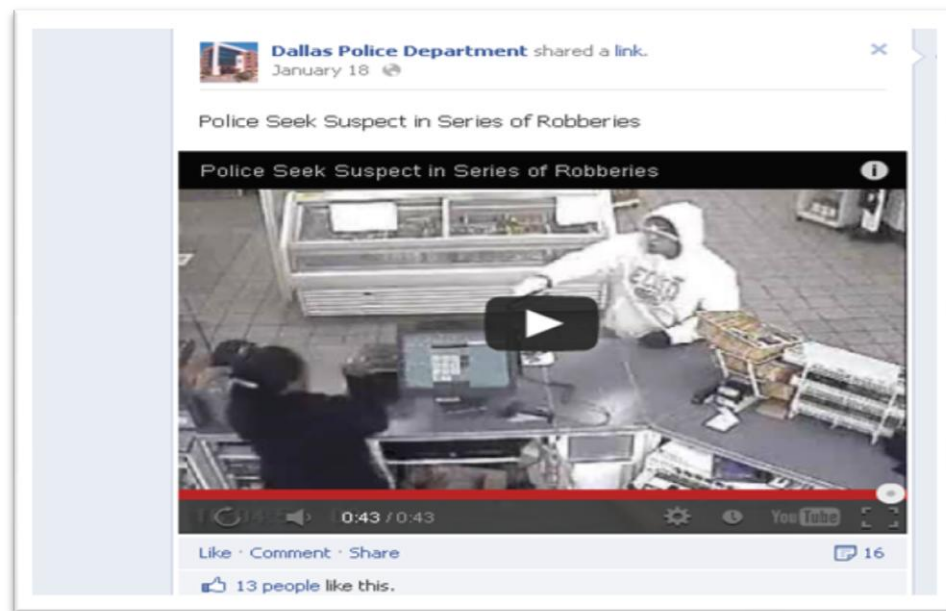


Figure 30. Surveillance video posted on January 15, 2013.

Like in this posting above (figure 31), police departments often post surveillance videos in order to collect information about criminal activities from followers. One example comes from video showing a man accused of committing serious robberies. Department 1 posted a surveillance video of a suspect on Facebook with description of their crime. Many followers shared the video within just two hours. Soon after, police arrested the suspect and informed the public.

The police in the DFW area had many other stories regarding crime investigations solved with the help of social media tools as well. It was observed that department 1, 2, 3, 4 and 9

requested civilian support more than other departments and they were in the largest population centers for this study. The number of posted requests also depended on the crime rate of the city, the effectiveness of the social media officers, and management support.

In a three-month period, department 1-posted only one case, a video of a vehicle burglary suspect. Department 2 posted help request four cases; a suspect vehicle involved a crash, a male robbery suspect, a vehicle burglary suspect, and a surveillance photo of a male robbery suspect. Department 3 requested followers' four times in three months; a suspect involved in the theft of jewelry, a suspect involved a car crash, a suspect involved in multiple robberies, and a burglary suspect video. Department 4 posted four robberies suspect pictures and a suspect video in a theft from Wal-Mart. Department 7 posted an ATM robbery suspect, a suspect vehicle video and a burglary suspect picture. Department 9 requested followers' assistance only one time, which was a business burglary suspect video. Department 5 and 8 did not request any public assistance for criminal cases. These departments used social media tools for providing the public with information rather than soliciting tips from the public.

Wanted Persons

Four out of nine departments requested assistance from citizens in order to catch most wanted persons during a three-month study.



Figure 31. Most wanted persons posted on February 5, 2013.

Department 4 posted information on Facebook from the most wanted persons list and fifteen of them were arrested so far. As seen in this posting, department published three photo to the album Denton's most wanted-felony cases on Facebook. Followers shared the video 44 times in just a couple hours after posting it. Department 1 posted the top ten most wanted list two times in three months. Department 3 posted the most wanted persons list requested public help five times in three months. Department 2 and 9 requested their followers' assistance for wanted persons once only.

Police-Community Relations

The majority of departments used social media tools to help foster police-community relations during this time.



Figure 32. Crime prevention meeting with community posted on January 16, 2013.

From national night out to crime preventing meeting with community, police share information via social media tools in particular Facebook. As can be seen from figure 33, department 9 organized several crime prevention meetings with the representatives of apartment complexes. These kinds of organizations build better police-community relationships.

Missing Persons

Seven out of nine departments were observed using social media tools to help find a missing person.



Figure 33. Missing person posted on January 21, 2013.

Social media have become effective tools in search for missing persons. In the three-month observation, many posts of pictures of missing-persons were found on departments social media tools with several found through the help of followers. Included in figure 34, police used social media to ask for the public's help in finding a missing 58 years old endangered Plano woman who had been four for four days.

Crime Prevention Tips

Seven out of nine departments posted crime prevention tips during the three-month observation. Departments often organized and promoted crime prevention activities and events via social media. Departments to share crime prevention tips with citizens used both Facebook and Twitter. These tips often underlined and tied into current events and holidays, such as the holiday safety tips posted in December as part of vacation and travel planning or the shopping tips featured in “Black Friday” time. Figure 35 below shows where department 2 posted a crime prevention tip for preventing the burglary of a motor vehicle.



Figure 34. Vehicle security tip posted on October 30, 2012.

Safety-Security Tips

Seven out of nine) departments posted safety-security tips during this time, for which most used social media to publish them, particularly Facebook and Twitter. These tips included car safety tips, tips for making residences safer, shopping security tips, neighborhood safety tips and safety-security tips for kids.

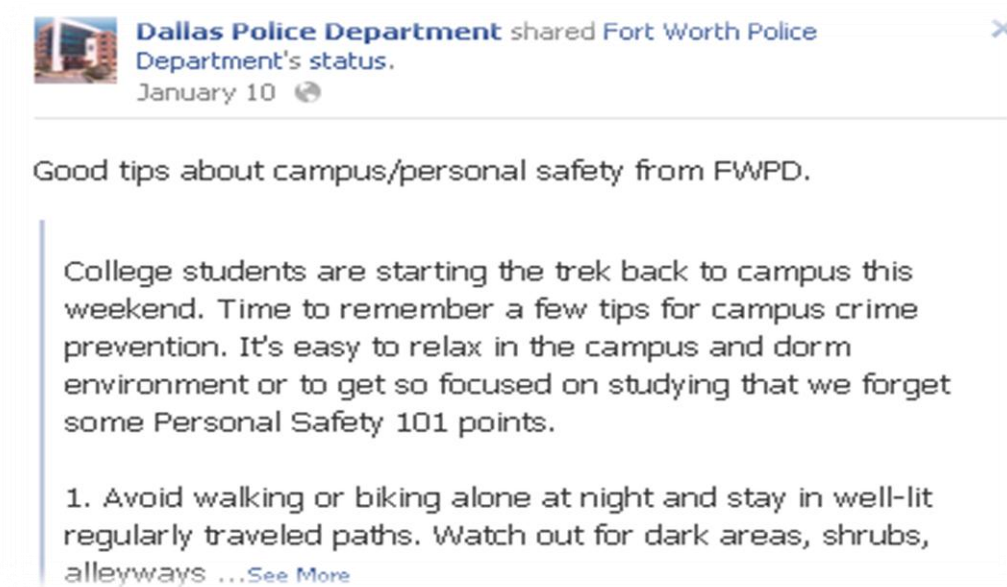


Figure 35. Campus-personal safety tips posted on January 10, 2013.

As seen in the posting above, Department 3 posted tips about campus-personal safety tips.

Traffic Tips

Almost all police departments posted traffic tips within the three-month observation period. Departments tended to post traffic updates to twitter several times a day compared to several times a week—that is, less than daily—for everything else the department shared with the public.



Figure 36. Traffic alert posted on January 25, 2013.

As it shown in figure 37, Department 6 informed followers for a closed road and led drivers to an alternate route.

Department News

All nine police departments shared with followers general news about their departments themselves; including promotions, staff replacements and staff success stories. Departments also posted news about local police academies, and citizen police academies. Some departments used different ways to inform the community about their departments. For instance, department 1 created a weekly news program, covering a variety of topics and news related to the department and delivered to the public via YouTube and Facebook.

Public information

Public information was greatly valued by all nine departments and this showed through in their posts about activities, video links and random thoughts. Observations of their use of social media tools found that departments provided more information to the city's residents than they had prior to using such tools. Social media has proved to be a faster way to share relevant information with public. Departments 1, 2 and 3 differed by also sharing most of the results from criminal cases and were rewarded with likes and comments by followers. In addition to regular tweeting, some departments held "tweet-along" to give the community a first-hand look at what officers do during patrols.

CHAPTER 5

CONCLUSION

Introduction

Despite a growing number of police agencies using social media tools, this population has conducted little research on the nature of the use of social media. Social media is a new and different approach for agencies in order to meet the needs of policing and as such provides a way to for the police force to connect with the community and to catch criminals generally quicker than investigation alone has proven to do.

This multi-method qualitative triangulation study explored the nature of social media use by municipal police departments in cities in the DFW area. After obtaining permission from the University of North Texas Institutional Review Boards (IRB), data collection methods were utilized by interviews and online observation. My research found that a majority of DFW area cities are currently using social media and most of those using it are more interested in information sharing than for soliciting public assistance with criminal activities. In addition, departments have had some challenges along with lots of good experiences resolving those challenges.

Implications

Based on my literature review and on my personal knowledge of the policing arena, I asked three research questions:

1. What are the driving factors of department users that encourage the choice to adopt and use social media?
2. How are the police departments managing their social media tools?
3. What are the barriers that could slow the adoption of social media?

Throughout my interviews and online observations and analyzing the data I collected from them, the research study was guided by these research questions and let the researcher to following answers

The following is a list, and discussion of the research questions as shown by the twelve participants and the finding of three-month online observation of the nine police departments in this study.

Research Question1: What are the driving factors of department users that that encourage the choice to adopt and use social media?

- Success factors aiding the adoption and use of social media came from:
 - ✓ The motivation of departments' staff and SM's potential benefits
 - ✓ Successful implementation of the tools.
 - ✓ The simplicity in using social media
 - ✓ Absolutely free
- Reasons to begin using social media:
 - ✓ To reach the younger generation
 - ✓ A fast and easy way to communicate with the public
 - ✓ Two way communication between citizens and police
 - ✓ To build trust with and to earn respect from the public
 - ✓ To use the wisdom of the crowd
 - ✓ A large part of the community already uses social media

- It is difficult to implement innovations in a formal hierarchical workplace environment without administration support; departments that used social media successfully were generally provided comprehensive administrative support for it.

These key findings listed above will be discussed in more detail in the following parts.

Adoption

This study has shown that major city police departments in the DFW area are using social media quite extensively. Success factors to adoption and continued use of these tools include the motivation of department staff, resulting benefits of their use, successful implementation of the tools, the simplicity of using the tools and that they are free to all.

One of the more significant findings to emerge from this study is that departments that adopted the use of social media tools regularly conducted training in how to use social media tools. The SMILE (The Social Media he internet and Law Enforcement) is the leading conference offered to law enforcement especially for social media and it was the most common attended event by the officers participating in this study. According to results from the face-to-face interviews, nine out of twelve participants were attended the Smile conference.

Community factors also promoted to the adoption of social media tools. The results suggested that higher population cities were more active in their use of media tools because there were more people in those cities and those cities had higher crime rates. Of the 14 city police departments chosen for this study, three were not using social media tools and so could not be observed using them, thus, interviews were not conducted from these departments at this time. Also, these departments were in populations more than 100,000 residents in the 2011 official estimate Census.

Prestige was also had an essential effect because using social media created a positive image for police within the community. Therefore, using social media tools may help to increase a positive public image.

Police need to explore new tools to reach the younger generations. Findings show that social media is an excellent way to connect with the young community because a majority of the younger generation use social media tools far more than other generations. For instance, the City of Denton is a college town, housing two big universities, UNT (University of North Texas) and TWU (Texas Woman's University). That is a lot of people fresh out of college and collected in Denton. The Denton police department was one of the first in North Central Texas Area to use these tools. According to the IACP center for social media, the Denton Police Department has the third highest number of Twitter followers among municipal police departments of similar size in the Country and majority of their followers are college students

For both police and citizens, social media provides the option to engage in two-way interactive communication. The results of the research show that interactive communication with citizens allows the police to answer each citizen in a fast and easy way. In December 2011, the Arlington City Police started a "Tweet-Along" activity. A tweet along is a virtual ride typically scheduled for a couple of hours the social media officer who normally posts tweets and pictures for the department. Findings show that this activity gave an opportunity to reach more people at once and it increased the department's transparency to the public. After successful use of the Tweet-Along activity, more city police departments started to use Tweet-Along including the Denton, Richardson and Fort-Worth police departments.

Findings show that departments using social media were supported by their administrations. As stated above, it is more difficult to implement innovations in a formal

hierarchical workplace without the administration's support; therefore, departments using social media will generally be more successful when provided administrative support.

Research Question 2: How are the police departments managing their social media tools?

- Departments have launched a wide range of posts about different topics such as the following:
 - ✓ Crime prevention tips
 - ✓ Surveillance videos
 - ✓ The Most Wanted List
 - ✓ Missing Persons
 - ✓ Traffic tips
 - ✓ Latest news from the local police
 - ✓ Result from cases
 - ✓ Safety-Security Tips
 - ✓ Police-community related posts
- Police had tremendous success using social media tools; as confirmed by the support they receive from most part of society. This positive feedback encourages departments to use the platforms more often.
- The amount of administration of the social media tools in police forces depends on the size of the department and number of the officers who work in those media departments. Large-sized police departments employed multiple media officers whereas medium and small-size police departments generally operate with one officer.

- Police departments using different social media tools depended on the local popularity of the platforms used and the type of the posts they wanted to provide. They favored Facebook and Twitter the most but also use YouTube for videos.
- Evaluating social media tools gives the administration and its media officers some important data about the effectiveness of these platforms.
- The departments have yet to have their platforms monitored professionally. Generally, they are monitoring their own facilities instead of using the monitoring tools provided by the various social media platforms
- Implementing an effective social media policy is an essential step for police agencies considering to add social media tools to their departments. It is a requirement for both officer users and citizens so that there will be responsible and effective use of the social media tools. Most police departments have locally designed social media policies.
- Social media policy provides a defense for both departments and officer users. A well-written policy can reduce risk of lawsuits and can increase overall productivity. Therefore, the departments need policies covering both personal and professional use of social media for everyone involved.
- Most departments in the study requested assistance from citizens in order to catch criminals and solve crimes, however, the role of social media in solving crime is still new and not widely used. The effectiveness of using social media depends on the crime rate of the city, the effectiveness of the social media officers, and management support.

- Using social media significantly improved police-community relations and gave an opportunity to police to show the humanitarian face of policing.
- In order to increase followers departments should:
 - ✓ Continually post new and fresh content
 - ✓ Be a trusted source of information
 - ✓ Engage with local media
 - ✓ Create innovative ideas
 - ✓ Use major events
 - ✓ Post credible and relevant information

These key findings listed above will be discussed in more detail in the following parts.

Managing

My research found that departments that use social media put mechanisms in place to administer its use and those mechanisms vary from department to department. Their media relation division's officers in Departments 2, 3, 7 and 8 managed and administered the use of social media tools themselves, whereas is the Public Administration Division that monitors Departments 4, 5, and 6 in using their social. According to my research study, only three out of eight departments created a position a for social media officer whose primary responsibility was the management of their department's social media tools. Other departments mentioned using community service officers or public information officers to manage their tools. Uniquely, department 9's tools are managed by their crime prevention unit. The results from the study show

that departments that create a social media officer position are using social media more efficiently than other departments.

Managing social media tools in the police forces depends on the size of the department and the number of the officers who works in the media/public relation or public information division. Large-size police departments such as Departments 1 and 3, operated with more than one media officer. Medium and small-size police departments generally operate one officer for platforms.

Social media tools were used in a systematic way in the studied police departments. Only social media officers and authorized staff have the authority to manage and administrate tools on behalf of the department.

Almost all police departments have a formally documented social media policy about their use of social media and for citizen's use or interaction with the department's social media tools. While some departments developed their policy shortly after they launched their social media tools, others were currently in the process of developing a social media policy with Department 8 as the only one to mention that they had a policy created before they began using these tools. This suggests that most departments are more likely to develop their social media policies sometime after adopting it currently in the process of developing a social media policy. Only Department 8 mentioned that they had a policy before they began using tools. This demonstrates that most departments using social media developed their policies governing its use sometime after adopting it. Most of the departments have adopted robust policies for officers using social media because a well-written policy reduces risk and increases productivity.

Aside from the general social media policy, some departments created specific policies for each of the tools it uses. Generally, most departments have established a broad social media policy to clearly express how the department, officers and citizens use these tools.

Departments also created a "post comments removal policy" to remove inappropriate comments and block users who persist in posting them. Department 9 alone decided to use the platforms own bad comments violation policy, suggesting that police do not need to establish their own policies to remove inappropriate comments because the sites only policies can handle the job better than they can.

Departments were careful to respect followers' freedom of expression and support their transparency because people have a right to free speech under the First Amendment. Therefore, they only remove such content when it is a violation of department policy.

The departments studied had yet to seek out professional evaluations of the effectiveness of their platforms. Current evaluations were done manually based on feedback and within their own facilities, instead of using the monitoring tools provided by the social media platforms. The exception was Department 6 who evaluated their tools by using the social media monitoring software Klout. In some departments, the official evaluation process has yet to occur, partly because they have just started to use social media and do not have sufficient data yet for evaluating.

Research Question 3: What are the barriers that could slow the adoption of social media?

- The main challenges for officer users are bad comments because they do not have any control over Twitter and Facebook. The comment box shows every post on the departments' pages. Departments created a "Post Comments Removal Policy" to remove them as soon as feasible any postings include inappropriate comments.

- Social media is live 24 hours a day and if it is not monitored 24/7 by department staff then you are probably missing something. Unfortunately, some departments could not monitor their tools 24/7 and these officers have tried handling the problem by in other ways.
- Social media is a new technology and not intensely integrated into daily life of all community. Followers represent very low percentage of the city population.
- Protecting the integrity of an investigation is essential. Postings about the case could damage an ongoing criminal investigation. Therefore, officer users should be careful when using social media tools.

These key findings listed above will be discussed in more detail in the following parts.

Challenges

The research data suggests that all the departments using social media faced a number of challenges and barriers. Even though, there is great diversity the statement about challenges, the most common barriers were: inappropriate comments or posts by the followers, 24/7 monitoring, privacy issues and adoption of new technologies.

The main challenges for officer users are inappropriate comments or posts because they do not have any control over Twitter or Facebook, only delete them and block users who persist in posting them. The departments created a "Post Comments Removal Policy" to remove these posts as soon as feasible because doing so is essential to maintaining a positive and safe place for users to be transparent and provide assistance to the police when requested..

According to the research results, another important challenge is 24 hours a day monitoring. Generally, some departments could not monitor their tools have tried to handle the

problem in their own ways. For instance, Department 3 created an on-call officer schedule for major events occurring after-hour's. Department 1's social media officer only checked their department tools every once in a while from after work until around 10 pm.

Adoption of using social media is another challenge for both departments and citizens because it is a relatively new technology and not intensely integrated into daily life of every citizen in the community. In addition, many people do not know police departments use these avenues for solving crimes, if they knew it, they would follow the departments.

Protecting the integrity of investigation is essential to avoid affecting investigation negatively. Postings about key details in the case could damage an ongoing criminal investigation, and so officer users were careful when using social media tools.

According to participants' statements, another important barrier to social media usage in policing is how followers represent a very low percentage of the city's population. Many citizens never go to social media pages, much less check out their city's police department pages, while others do not even have a computer.

Limitations

There are some limitations of concerns that should be evaluated in future studies:

1. The study was limited to just the city police departments in the DFW area. Due to the small sampling size, generalizations beyond the context of the study will be difficult to conclude.
2. The structure, laws and regulations of the police agencies are vary across the countries, states, even with in major cities. Therefore, the findings of this study cannot be generalized to all police organizations.

3. Due to the fact that social media is a relatively new technology, many departments have only just started using it. While the study answers all my research questions at least some departments were not using social media to its full potential.
4. This study participants, including those who were not official social media officers staff that lack training or prior experience with using social media for official police department use.
5. One final limitation about this study is that while the researcher included the social media tools Facebook, Twitter and YouTube, other tools such as blogs and web pages available for smart phones were not.

Recommendations for Future Research

1. The first recommendation for the future research would be the population parameters of the study. A new study could police departments across the country and from every population size and from all law-enforcement agencies including state police, sheriffs and constables. By researching other cities' police departments, we can learn how they are using these tools and how they overcame the challenges that come with it.
2. The second recommendation of future research would be to examine more social media tools, including Pinterest, Flickr and Instagram.
3. The third recommendation for future research would be to conduct a quantitative study. The study used the qualitative method to gather data through interview techniques and online observations. Future researchers should use more instruments on data collection in order to create more validity and reliability on the findings. The researcher might even consider a planned quantitative or mixed-methods approach in order to reach large population.

4. The final avenue for future research would be that none of the police departments posted statistics showing the public how well their support for solving crime helped in investigations nor did the researcher find it mentioned in any of the interviews conducted. This could be another avenue for future research to help evaluate the effectiveness of using social media tools in law enforcement.

APPENDIX A
E-MAIL FOR PARTICIPAN

Dear Officers,

My name is Fuat Altunbas. I am a member of Turkish National Police (TNP), and a doctoral student at the UNT. I invite you to participate this interview session, which is conducted as a part of my dissertation study. This interview aims to explore how police departments use social media to solve crimes, to better communicate, protect and inform the community, and to reveal challenges and barriers.

The interview process takes approximately 45 minutes. This study neither includes foreseeable risk nor requires individually identifiable information. Participation is voluntary. You can keep this form for your records.

Please read the consent notice carefully before joining the interview session. If you have any question you can ask me anytime during the interview. You can also stop and give up joining the interview anytime. If you have additional question please do not hesitate to ask me. You can reach me by the following email and phone number:

Email: fuataltunbas@my.unt.edu

Phone: +1 (469) -203- 1508

Thank you for your contribution.

Fuat Altunbas

APPENDIX B
INFORMED CONSENT NOTICE

University of North Texas Institutional Review Board

Informed Consent Notice

Dear Participant,

Thank you for considering participating in this research study, Participant is voluntary and refusal to participate will result in no loss of benefits or rights.

The purpose of this study is to explore what purposes police departments use social media, how departments are managing their social media tools, and what problems or challenges departments are experienced as they use social media. The result of this study will also be a reference for future studies for researchers who want to study adoption of using social media in policing. Moreover, this research will provide recommendations on police departments' social media usage adoption process.

Our interview should take no more than an hour. Once we have completed the interviews the interview notes will be delivered to Mr. Fuat Altunbas. He will compile the results and provide an overview of information to school administrators. You will not be identified in any report or publication describing the study. The information you provide will only be seen by the researchers. It will not be shared anyone else.

This research study has been reviewed and approved by the University of North Texas (UNT) Institutional Review Board (IRB). You may contact the UNT IRB with any questions regarding your rights as a research subject.

If any questions or problems arise, you may contact Fuat Altunbas, UNT Collage of Information at 469-203-1508 ; fuataltunbas@my.unt.edu.

Please sign the below to indicate you voluntarily agree to interview. You may keep a copy of this form for your records.

----- Signature of Participant

Thank you for your participant

APPENDIX C
INTERVIEW QUESTIONS

Interview Question

1. Does the department have an official account on any social media platform?
2. How long ago did the department start using social media?
3. Please describe your work as a social media officer.
4. Who manages or administers the department's social media page?
5. Does the use of social media by police officers make sense - and if so for what purposes, for what activities does your department use social media tools?
6. Can you explain social media usage process in your department?
7. What type of information does the department post on its social media page?
8. Approximately how many cases solved by the help of social media tools? Do you have any statistics?
9. Can you talk about most interesting successful use cases for social media?
10. Does the department review or evaluate the effectiveness of its use of social media tools?
- 10- How extensive is the use of social media in solving crimes?
- 11- Does the department have an official, documented social media policy? How long ago did it adopt the social media policy?
- 12- Do other people, like your colleagues other divisions encourage using the social media?
- 13- Does your agency support or suggest using the Social Media?
- 14- Do you think using social media increases the prestige of the DPD?
- 15- Has social media improved police/community relations in your area?
- 16- What barriers did your agency encounter while developing and implementing social media tools?
- 17- Would you like to add something that is not included in the questionnaire?

,

APPENDIX D

RESEARCH APPROVAL

FROM ARLINGTON PD TO IRB



Police Department

620 West Division Street
Post Office Box 1065
Arlington TX 76004-1065
(817) 459-5600

CALEA Accredited Since 1989

Will D. Johnson, Police Chief

April 25, 2013

Dear Human Subjects Committee:

It is my understanding that Fuat Altunbas will be conducting a research study which included interviewing Sgt. Christopher Cook and Officer Zhiannoni McDonnell at the Arlington Police Department on "Social Media in Policing: A Study of Dallas - Fort Worth Area's Police Departments."

We supported providing input for this study. If you have any questions, please do not hesitate to call me at 817-459-5333.

Sincerely,

Christopher Cook #2216
Sergeant - Media Office
Arlington Police Department

Zhiannoni McDonnell #1875
Officer - Media Office
Arlington Police Department

APPENDIX E
RESEARCH APPROVAL
FROM CARROLLTON PD TO IRB



April 23, 2013

Dear Human Subjects Committee:

It is my understanding that media relations officers will be conducting a research study at the Carrollton Police department on "Social Media in Policing: A Study of Dallas-Fort Worth Area's Police Departments".

I support this study and am willing to provide the assistance necessary for its successful implementation. If you have any questions, please do not hesitate to call. I can be reached at 972-466-3198.

Sincerely,

A handwritten signature in black ink, appearing to read "Anthony Kresta".

Anthony Kresta
Commander
Carrollton Police Department

POLICE DEPARTMENT

2025 E. Jackson Road • Carrollton, Texas 75006-1739 • 972/466-3290 • Fax: 972/466-3522 • www.cityofcarrollton.com

APPENDIX F
RESEARCH APPROVAL
FROM DENTON PD TO IRB



DEPARTMENT OF POLICE

501 E. HICKORY STREET, SUITE 101 • DENTON, TEXAS 76218 • PHONE (940) 349-8181 • FAX (940) 349-7966

May 6, 2013

Dear Human Subjects Committee:

The Denton Police Department Media Relations Officer helped in conducting the research study on "Social Media in Policing: A Study of Dallas-Ft Worth Area's Police Departments".

We support this study and will be willing to provide the assistance necessary for its successful implementation. If you have any questions please do not hesitate to call. I can be reached at 940-349-8160.

Sincerely,

Ryan Grelle
Media Relations Officer
Denton Police Department

"Dedicated to Quality Service"
www.cityofdenton.com

APPENDIX G
RESEARCH APPROVAL
FROM FORT WORTH PD TO IRB



April 25, 2013

Dear Human Subjects Committee:

The Fort Worth Police Dept. media relations office help in conducting the reach study in ref. to "Social Media in Policing: A study of the police departments in the DFW area.

I support this study and will provide more assistance ref. to out social media that works for Fort Worth. If you have any questions, please do not hesitate to call us.

Yours Truly,

Officer S.A. Neal 2270
Community Relations/PIO
Fort Worth Police Department
817-392-4200



1964 • 1993 • 2011

POLICE DEPARTMENT

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APPENDIX H
RESEARCH APPROVAL
FROM FRISCO PD TO IRB



May 21, 2013

Dear Human Subjects Committee:

The Frisco Police Department community services division and public information division helped Fuat Altunbas conduct research for his study "Social Media in Policing: A Study of Dallas – Fort Worth Area Police Departments."

We support the study and we are willing to provide any necessary assistance in its implementation. If you have any questions regarding our input in the study please contact me at 972-292-6134.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Skertich", is written over a horizontal line.

Jon Skertich
Public Information Officer
Frisco Police Department

APPENDIX I
RESEARCH APPROVAL
FROM GRAND PRAIRE PD TO IRB



April 26, 2013

Dear Human Subjects Committee:

I understand that I will be assisting in the research study at the Grand Prairie Police Department on "Social Media in Policing: A Study of Police Departments in the DFW area."

I support this study and am willing to provide the assistance necessary for its successful implementation. If you have any questions, please do not hesitate to call.

Respectfully,

A handwritten signature in black ink, appearing to read "Lyle R. Gensler".

Detective Lyle R. Gensler
Office of Media Relations
Grand Prairie Police Department
lgensler@gpmx.org
972-237-8851

CHIEF OF POLICE – POLICE ADMINISTRATION
POLICE DEPARTMENT 1535 ARKANSAS LANE
GRAND PRAIRIE, TX 75052 OFFICE: 972-237-8713 FAX: 972-237-8714

APPENDIX J
RESEARCH APPROVAL
FROM IRVING PD TO IRB



April 12, 2013

Dear Human Subjects Committee:

It is my understanding that media relations officers will be conducting research study at the Irving Police Department on "Social Media in Policing: A Study of Dallas-Fort Worth Area's Police Departments".

I support this study and am willing to provide the assistance necessary for its successful implementation. If you have any questions, please do not hesitate to call. I can be reached at 972-721-3610.

Sincerely,

A handwritten signature in dark ink, appearing to read "Sam Hall". The signature is written in a cursive, flowing style.

Sam Hall
Lieutenant
Irving Police Department

APPENDIX K
RESEARCH APPROVAL
FROM PLANO PD TO IRB



Gregory W. Rushin
Chief of Police

909 14th Street
P.O. Box 603578
Plano, Texas 75086-0358
972-424-5678

May 10, 2013

Dear Human Subjects Committee:

One of your students, Fuat Altunbas, conducted a research study with David Tilley, Public Information Officer for the Plano Police Department. This research related to "Social Media in Policing" and we supported this study by providing input as it relates to our department.

If you have any questions, feel free to contact me at 972-941-2433.

Sincerely,

David Tilley #1471
Public Information Officer
Plano Police Department



"Professionalism - Integrity - Progress"



APPENDIX L
RESEARCH APPROVAL
FROM RICHARDSON PD TO IRB



May 7, 2013

Dear Human Subjects Committee:

I am writing to inform you that I participated in a research study here at the Richardson Police Department on "Social Media in Policing: A Study of Dallas-Fort Worth Area's Police Departments".

I support this study and am willing to provide further assistance if needed. If you have any questions, please do not hesitate to call. I can be reached at 972-744-4762.

Sincerely,

Sgt. Jamie Gerhart #919
Richardson Police Department



POLICE
DEPARTMENT
20. Box 891078
Richardson, TX
75082-1078
972 744 4600

APPENDIX M
IRB APPROVAL



A green light to greatness.™

Office of the Vice President of Research and Economic Development

April 15, 2013

OFFICE OF RESEARCH SERVICES

Supervising Investigator: Dr. Shawne Miksa
Student Investigator: Fuat Altunbas
Department of Library and Information Sciences
University of North Texas

Re: Human Subjects Application No. 13201

Dear Dr. Miksa,

As permitted by federal law and regulations governing the use of human subjects in research projects (45 CFR 46), the UNT Institutional Review Board has reviewed your proposed project titled "Social Media in Policing: A Study of Dallas- Fort Worth Area's Police Departments." The risks inherent in this research are minimal, and the potential benefits to the subject outweigh those risks. The protocol is hereby approved with the stipulation that approval from each data collection site be obtained and submitted to the UNT IRB prior to contacting human subjects at that site. **Federal Policy 45 CFR 46.109(e) stipulates that IRB approval is for one year only, April 15, 2013 to April 14, 2014.**

Enclosed is the consent document with stamped IRB approval. Please copy and **use this form only** for your study subjects.

It is your responsibility according to U.S. Department of Health and Human Services regulations to submit annual and terminal progress reports to the IRB for this project. Please mark your calendar accordingly. The IRB must also review this project prior to any modifications. **If continuing review is not granted before April 14, 2014, IRB approval of this research expires on that date.**

Please contact Shelia Bourns, Research Compliance Administrator, or Boyd Herndon, Director of Research Compliance, at extension 3940, if you wish to make changes or need additional information.

Sincerely,

Patricia L. Kaminski, Ph.D.
Associate Professor
Chair, Institutional Review Board

UNIVERSITY OF NORTH TEXAS

1155 Union Circle #305250 Denton, Texas 76203-5017
940.565.3940 940.565.4277 fax <http://research.unt.edu>

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