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# #TheRightToRemainSilent: Police Department Adoption and Deployment of Social Media, 2010-~2015

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#THERIGHTTOREMAINSILENT: POLICE DEPARTMENT ADOPTION AND  
DEPLOYMENT OF SOCIAL MEDIA, 2010-2015

By

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A dissertation submitted in partial fulfillment  
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School of Environmental and Public Affairs  
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## **Dissertation Approval**

The Graduate College  
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#TheRightToRemainSilent: Police Department Adoption and Deployment of Social Media, 2010-2015

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## **Abstract**

Police have a complex myriad of ever-changing responsibilities and fluid expectations from the public, and traditional media has performed a largely ambivalent self-appointed oversight and agenda-setting function vis-à-vis police for decades. But in the last five years, the second wave of the first new mass communications medium since the 1940s, social media, has democratized both that oversight function as well as traditional media's agenda-setting ability. Meanwhile, police have been characterized as slow to adapt to change and to adopt new practices in response to a changing world. This work analyzed police agency social media adoption and explained the rate at which United States municipal police adopted social media, the reasons that they did so and for what purpose through the lens of Everett Rogers' diffusion of innovations theory. Based on a survey of police chiefs and administrators with media responsibility, this research demonstrated that police were not slow to adopt social media, but did so in keeping with what diffusion of innovations theory would have predicted. Larger departments (with more resources) adopted social media earlier than smaller departments. Smaller departments used social media somewhat differently than did larger departments, in keeping with the concept of reinvention. Other factors such as age of the chief (which is not an aspect of diffusion of innovations theory but has been demonstrated to be a factor among the general public) and education level of the chief was less explanatory. Chiefs and media professionals at all levels professed an intense distrust of traditional media and a wide belief that social media was an effective tool for both public and non-public facing tasks, but distrust of the media did not necessarily correlate to a more positive view of social media or the degree to which police embraced the inherent interactivity of social media. A longitudinal content analysis of Facebook posts by police departments demonstrated that from 2010 to 2014, a shift from crime news and general

information to a public relations focus had occurred, and that from 2014 to 2015, perhaps in response to current events such as police-involved shootings and public backlash to that, there was a further shift toward community interest posts at the expense of crime news. Public response as measured by the number of followers and likes of particular posts demonstrated that there was strong resonance to stories posted by police departments that had emotive qualities in 2015.

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There are a number of people who have had an influence on my intellectual and professional development over the years and I defer to attempt to list all of those people for fear that I leave somebody out. I've been fortunate that there are that many, and please know that I appreciate all of you.

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Finally I'd like to thank the roughly 240 police professionals who took the time to fill out the survey that comprised a significant segment of this research. The number and thoughtfulness of the responses was truly gratifying.

## **Dedication**

To my partner Michael Herwig, without whose encouragement and patience this undertaking never would have happened.



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## **Chapter 1**

### **Introduction**

It is not gratuitous hyperbole to say that social media are fundamentally changing the nature of society itself. The methods by which people, particularly Americans, receive information are changing profoundly and quickly, punctuated by the hyper-interactivity and immediacy of social media. This emergent sub-segment of new media has quickly had a profound effect on the nature of mass media and news delivery, transforming how people communicate with each other in the United States and worldwide. This soon to be ubiquitous method of communication is affecting culture (Rumbold, 2010), business (Naylor & West, 2012), governance (Bryer, 2011), education (Squire & Dikkers, 2012), and society itself (Meijer, 2012). Social media are having an especially profound effect on governance in the US and the relationship that Americans have with their government. It has had an unmistakable effect on electoral politics (Bradshaw, 2012), policy choices, (Lindsay, 2011) and the way that various components of the government, including police departments, operate (Parascandola, 2011). Furthermore, social media use has consequences for organizations that go even beyond those of other computer-mediated communication methods. (Treem & Leonardi, 2012)

The general public has rapidly adopted social media (see Figure 1). New media-based news was on the rise in the 2000s at the expense of newspapers and network television. But notice that in 2008, social media was not even a category in the Pew survey of where Americans got their news.

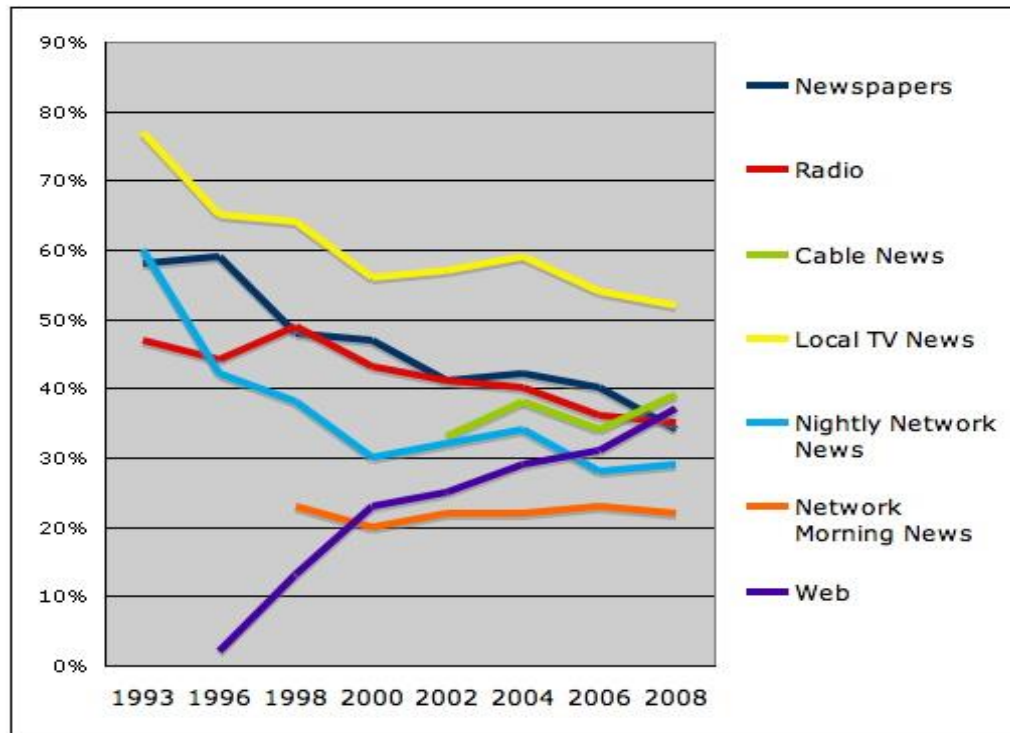


Figure 1. Where Americans get their news, 1993-2008. Source: Pew Center for People and the Press

Contrast that with 2014, when according to Pew (see Figures 2 and 3), more than 70% of American adults had a presence on Facebook, and nearly 30% got at least some of their news from Facebook. Not only are more people than ever using social media, many people are using more than one social media site. (see Figure 4).

*Percent of online adults who use the following social media websites*

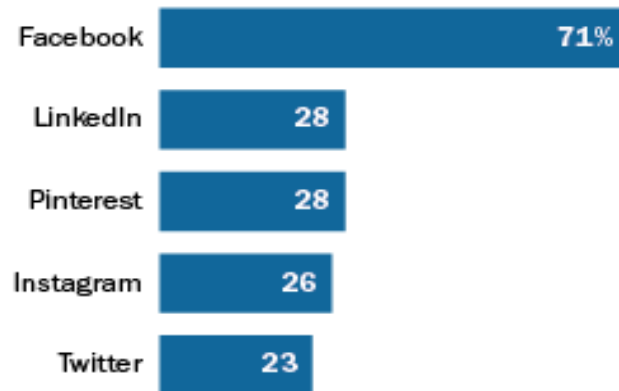


Figure 2. Use of social media by adults. Source: Pew Research Internet Project, January 2015.

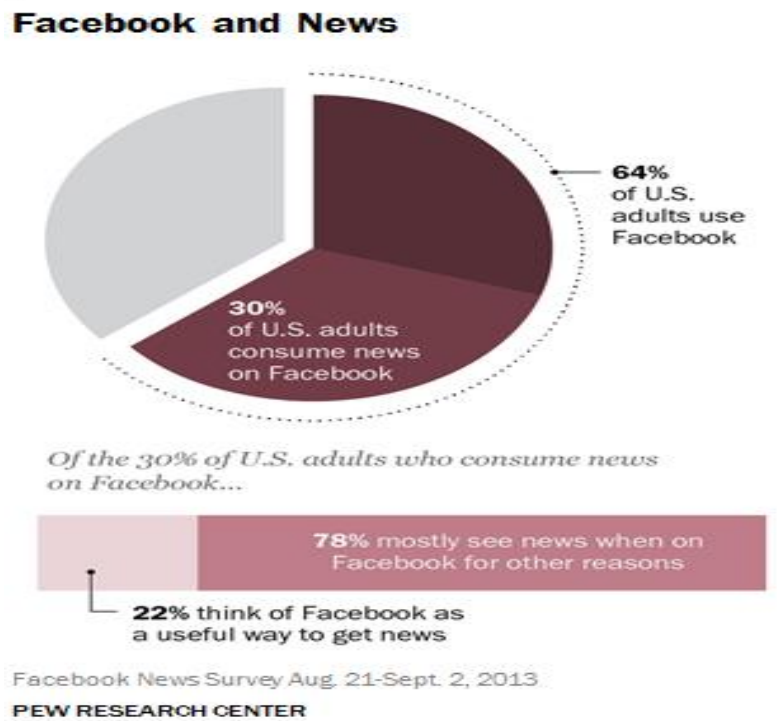
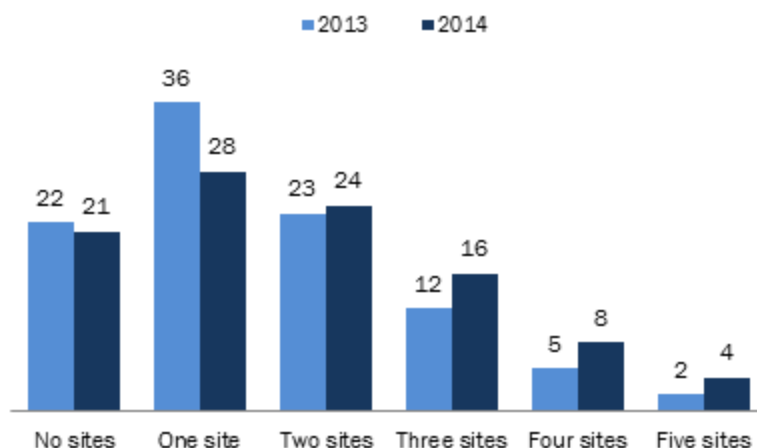


Figure 3. Facebook and news. Source: Pew Research Internet Project, January 2015.

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### More people use multiple sites

*% of internet users who use the following number of social networking sites (sites measured include: Facebook, Twitter, Instagram, Pinterest and LinkedIn), 2013 vs. 2014*



Pew Research Center's Internet Project September Combined Omnibus Survey, September 11-14 & September 18-21, 2014. N=1,597.

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Figure 4. Use of multiple sites. Source: Pew Research Internet Project, January 2015

This new method of interactive mass communication has the potential to greatly impact the nature of police work as well. Three news stories illustrate the effect that Web 2.0 – interactive web and smartphone-based information delivery (O'Reilly, 2005) – is already having on policing and the nature of police communication with the public (and vice versa) in a potential post-television news age:

Police said students turned to social media sites to plan a gathering that suddenly became unruly on Saturday night at the Country Club Plaza... Last month in Philadelphia, police reported thousands of teens stormed through the downtown area jumping on cars, fighting, vandalizing stores and knocking over pedestrians.... Police said besides the violence, there is another connection between what happened in Philadelphia and what went on at the Plaza -- social networking. Teens in Raytown said getting the word out is easy. (KCTV Channel 5, Kansas City, News Online, 2010)



A 16-year-old boy has been arrested in the recent incident where he used a public-address in a Wal-Mart system to ask "all the black people" to leave.... Aided with an anonymous tip New Jersey police searched social media networks online postings related to the incident and uncovered instances of "kids bragging." (Chase, 2010)

Police said via Twitter no group of "angry fans" showed up at the home of Texans quarterback Matt Schaub this week. Officials with the Houston Police Department said via Twitter a family member reported a suspicious man in the driveway of their home taking photographs. But police officers were not called to the home. Police said there was no other information to release about the report of fans gathering at Schaub's house. The quarterback has been criticized recently in the media for poor play in Texans losses. (Lezon, 2013)

These are manifestations of a dynamic that reflect a profound paradigm shift for both police and media and their relationship with each other and the relationship of each to the public.

This dissertation explored the adoption and use of social media by police agencies and discusses the many ramifications for public policy, law, police/media relations, police/public relations, and police practice and policy, among other issues, and augments the nascent but growing scholarship about diffusion of communications innovations in police work. Given that research directly about police use of social media is fairly scant, in this introductory chapter, research about salient topics in media and as well for police studies has been provided, followed by a literature review of police and social media. The theoretical constructs that emanate from that literature were analyzed with diffusion of innovations theory as the aperture. With that oft-cited and tested theory as a lynchpin, two discrete but complementary studies were performed to provide a comprehensive analysis of the adoption and use of social media by municipal police in the US from

2010, when social media was first being deployed by a few of the larger departments, to 2015, by which time adoption was nearing saturation. Specifically, a content analysis of big city police department Facebook pages was performed in 2014 and 2015 to replicate a seminal 2011 study and analyze similarities and differences in use and rhetoric between those years. Also, a survey was performed to ascertain views about how and why police chiefs and police media professionals use social media, and their views about its general utility. The discussion brings together all of these aspects, with an eye toward the application of diffusion of innovations theory and the possibility of the emergence of a discrete theory of police use of social media.

## **Chapter 2**

### **Literature Review**

#### **Evolution of traditional media**

Media and journalism scholars have studied the changes to the nature of information delivery in the US from each of the major media since the rise in communications studies as a discipline in the early 1960s. According to Raymond W. Priess, 1963 was the first iteration of the concept of communication research as a "domain." (Preiss, p.x., 2007) We know that before the 1920s, most Americans got their news from newspapers. The 1920s to the 1950s saw the ascendance of radio (White, 1996). In the 1950s through the 1960s, television began to dominate media as more Americans could afford a television (Podesta, 2004). From the 1950s to the 1980s, television news was provided by the three major broadcast networks, ABC, NBC, and CBS (Museum of Broadcast Communications, 2014). Generally in most cities, locally produced news programming in the evening was followed by "national" news provided by the national networks, with the "local" news airing again later, at 10 or 11 pm. This structure gave those three networks tremendous influence; Wamsley and Pride said in 1972 that "TV network news is notably oligopolistic in character... Three networks dominate the scene, each with about 200 local affiliates, totaling 95 percent of prime time audience figures" (Wamsley & Pride, 1972, p. 436).

Television entered a new era in the 1980s, as cable television infrastructure that had been started in the late 1940s exploded in the 1980s and soon covered most of the country (National Cable & Telecommunications Association, 2014). Nascent news networks such as CNN, which broadcasted 24 hours a day, changed the landscape and ended the lock that the three major

networks and their affiliates had on news delivery. More people now get their news from cable stations than from the three broadcast networks. By 2004, younger people had started shunning newspapers, and more people, notably Republicans, had started gravitating to CNN and Fox News (Pew Center for the People and the Press, 2004).

Scholars have studied the influence of cable television on information delivery and its effect on American society and have numerous theories, conclusions and assertions about it. There has been debate about media concentration and hence, concentrated power to control the national agenda. Ben Bagdikian, former Dean of the Graduate School of Journalism at University of California Berkeley, has characterized the media as becoming increasingly controlled by a small number of people:

Ben Bagdikian's book, *The New Media Monopoly*, chronicles the ever-growing stranglehold that major corporations have on news in the United States. Since the 1980s, ownership of the media has narrowed. In 1983, 50 corporations owned the media. As of 2002, according to *The Nation*, just 10 corporations control all the mainstream news and entertainment media. Amazingly, only five corporations now own most of the mainstream news... Bagdikian claims that these media corporations "manufacture political and social values," values that are consistent with conservative and "far right politics." (Robinson, 2009, p. 125)

Other researchers disagree. Vizcarrondo's research (2013) indicates that media have been consistently unconcentrated, and that there is even a lack of consensus about the very meaning of media diversity and concentration, with some emphasis on media ownership and some on media delivery and content. Polinsky (2007) found that the Telecommunications Act of 1996's deregulation of national radio ownership limits did not affect the number of radio formats in a given market. Noam's book *Media Ownership and Concentration in America* (2009) juxtaposes each side of the argument and Compaine's book review (2010) asserts that there is a "vast middle."

The four largest newspapers in the country (and among the biggest drivers of opinion) in the early cable era were the *New York Times*, *Wall Street Journal*, *Washington Post*, and *Los Angeles Times*, and those four are among the top five today, *USA Today* having been introduced in 1982 and second because of its national circulation (Alliance for Audited Media, 2013). The four major newspapers were independently owned throughout the early cable era. Today, the *New York Times* and *Washington Post* are publicly traded companies; the *Los Angeles Times* was bought by Tribune Publishing (publisher of the *Chicago Tribune*). They were (and still are as of early 2016) owned by companies not affiliated with those that own the major television networks. The exception is the *Wall Street Journal*, which was acquired by News Corp., the producer of *Fox News*. Those eight companies – four television, four newspaper, and the *WSJ/Fox News* combination at News Corp. – today share a smaller audience than the seven major outlets (the four newspapers and the three major networks) did in the 1970s. The major media are controlled by more – not fewer – organizations if one looks at the statistics that matter: how many organizations there are and what size is the market share of people who are actually accessing them for information. Information sources are more numerous and concentration of control of information is becoming more diffuse, not the opposite.

### **Social media**

Social media has added to the diversity. The most influential social media companies are four, owned by four different companies: Facebook is publicly traded; Twitter is publicly traded; YouTube is owned by Google, iPhone (probably the most prominent facilitator) by Apple; as opposed to the three that had a lock on television news in the 1970s. These four companies did not even exist in the 1980s except for Apple, which made computers but had no products in the information/news space then. Five other companies run the largest television news outlets and

three companies separate from those nine just mentioned operate three of the four largest newspapers. That media sources are becoming more, not less numerous (and arguably more diverse) is exhaustively demonstrable, but does not stop the opinion that news media are becoming more concentrated from continuing to be proffered.

But though from the 1980s on, news delivery emanated from more outlets than the original three networks, that period still can be said to be characterized by editorial control and lack of interactivity. That is, the news and editorial departments of major television, newspaper, and radio outlets decided what was news, what was important enough to be a lead story and what got "buried" (stories that ran but which were in the back pages or toward the end of the broadcast) and how that story was told. What interactivity there was – letters to the editor, mailed and telephoned responses to television and radio news stories – were dealt with long after stories were top of mind and almost always with far lower reader, viewer, or listenership than the original story. It has been argued that cable news programs had become more interactive than the news provided by the traditional networks in the pre-internet era: "On cable news networks, the creative use of visuals, such as constantly changing on-screen titles, spinning and flashing graphics, and real-time viewer input, can transform even a run of the mill news story into an interactive experience for the viewer. (Frost & Phillips, 2009, p. 90)"<sup>1</sup> But that is a much more limited view of what interactivity means than today.

The next decade brought two changes in information delivery that had an element that television could not (or would not) boast: real interactivity. Talk radio, which came to be dominated mostly by politically conservative talk hosts such as Rush Limbaugh began to attract

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<sup>1</sup> Note that: "The data for this study consist of news segments aired in the top-rated programs on the three 24-hour cable news networks: The O'Reilly Factor (Fox), Countdown with Keith Olbermann (MSNBC), and Anderson Cooper 360° (CNN)." None of these are actually news broadcasts but instead are feature and opinion programs about current news, which may affect story choices in those "news segments."

listeners in the tens of millions (Pew Center for People and the Press, 2004). Though not technically news, many people viewed talk radio as a primary source of information. The popularity of talk radio is sometimes attributed to the idea that its listeners were alienated by a liberal bias in the traditional media (Goldberg, 2002) to which there could be no response. Others attribute talk radio's popularity to manufactured consent exacerbated by media concentration (Herman & Chomsky, 2002). Whatever the cause, talk radio is undeniably more interactive than traditional television news or newspapers had been.

Later in the 1990s and especially in the 2000s, economics and technology came together to change the editorial control of news outlets as to what is news, and what is popular news. Over that time, more households acquired access to high-speed internet. Whereas in the 1990s operating a website was the domain of professionals, by the 2000s, easy-to-operate software and inexpensive webhosting made operating a website accessible to nearly everyone, prompting an explosion of "blogs" (short for web logs). Today the number of internet sites is in the hundreds of millions, though it may have at last leveled off (Netcraft Ltd., 2014), and it is difficult to know on a given day how many are current events weblogs, since they can come and go every day. Several weblogs have regular readership in the hundreds of thousands (Alexa Internet, Inc., 2014). Popular current-events weblogs run the gamut of political philosophy, such as DailyKos.com and Huffington Post (now owned by America Online) on the left and Breitbart.com and MichelleMalkin.com on the right. Others that do not fall neatly on the right/left continuum include The Moderate Voice (as the name suggests) and Instapundit (libertarian).

In the mid to late 2000s, social networking sites such as MySpace, Facebook, and Twitter exploded in popularity. Their popularity and influence quickly began to rival that of weblogs and

news websites. Also rapidly increasing in popularity was YouTube, a site where anyone could upload videos to the internet instantaneously. Part of the reason they have become so popular has to do with improving technology and economics as well: these media can now be operated with a smartphone (phones that connect to the internet), as well as having enhanced text capabilities. Many phones come with cameras that can take high-resolution photographs as well as 30 minutes or more of video. Apple's iPhone could be characterized as a computer that happens to be able to make phone calls rather than a cell phone with internet capability. The images and videos taken with one could be instantly texted to someone, instantly uploaded to one's MySpace or Facebook account, or instantly "tweeted," (parlance for uploading to Twitter) which then instantly sends the message in the form of a text to all of the people who have signed up to get "tweets" from a user's Twitter site. Sites that are interactive have become the most popular sites on the internet today. Of the top six pages on the web today, three are the major search engines (Google, Yahoo, and Bing), along with Facebook, YouTube, and Wikipedia (Pew Research Center, 2008), the "collaborative" web encyclopedia to which the public contributes most of the information.

These new technologies are fundamentally changing that way that Americans (especially younger Americans) get their information. The percentage of Americans who watch local television news has fallen from nearly 80% in the early 1990s to about half, and the number who get news from the internet has gone from zero in 1990 to more than half as of 2008. (Pew Research Center, 2008) In just the six years from 2002 to 2008, the percentage of people who accessed television to get their news fell from 82% to 70%; in the five years from 2003 to 2008 the percentage of people who accessed newspapers to get their news fell from 50% to 35%; whereas internet access went from 14% to 40% percent from 2002 to 2008. The percentage of



people who accessed the internet for news eclipsed those who accessed newspapers for the first time in 2008 (Pew Research Center, 2008).

These changing numbers not only reflect the reduced number of people getting their information from television, but are also changing the editorial decisions of television and perhaps more importantly are contributing to agenda setting. In many cases recently, television news runs stories about issues that have already "gone viral" (become explosively popular via sharing or linking) on YouTube or one of the social networking sites, in essence democratizing the agenda-setting power of television. It has been established that new media have an effect on the agenda setting of traditional media, which may be a more important question than the number of major media outlets. McCombs and Shaw pioneered agenda-setting research in their 1972 article which described how the media's agenda correlated strongly with those of voters in Chapel Hill, NC, in the 1968 election (McCombs & Shaw, 1972). Scholars have studied various aspects of agenda setting including second-level agenda setting, that being a distinction between attribute and issue salience; that is, how to think about something as opposed to what to think about (Balmas & Sheafer, 2010). A less oft-studied third level has emerged also, in which the gestalt of the collective aggregate of what the media proffers affects the citizens' "pictures in our minds" that comprise how one makes sense of the jumble of information out there (Vu, Guo, & McCombs, 2014). Framing is important to the agenda-setting discussion as well. Nelson, Clawson and Oxley demonstrated that the media framing of a Ku Klux Klan rally (free speech or public order emphasis) had an effect on the perception of the media consumer (Nelson, Clawson, & Oxley, 1997).

Given that there is an agenda-setting power nestled in mass media, the small number of outlets that are the most influential may render moot whatever concentration or lack thereof of

media ownership there may be. Much of the daily news agenda has emanated from the *New York Times* (Tan & Weaver, 2013) and the Associated Press, which still fills 40% of a typical local newspaper's real estate (Hau, 2008). New media may be changing this agenda-setting concentration, as some of the literature indicates that new media are influencing the agenda of the traditional media to a degree and diluting its singular power (Meraz, 2011). However a 2014 study shows tight agenda correlation between new media and traditional media (Vu, et al., 2014), but that does not indicate the direction: who is influencing whom and to what degree. Powers and Benson make the case that new media are diversifying the universe of the public agenda rather than homogenizing it. The new media may have augured the "end of mass media" as Chaffee and Metzger put it (2001), prompting a relook at that concept by Weimann, et al., who assert that traditional media studies theories such as agenda setting are still relevant in the new media era (Weimann, Weiss-Blatt, Mengistu, Tregerman, & Oren, 2014).

But social media such as Facebook and Twitter are much more interactive than new media such as popular weblogs, online versions of traditional media, etc., and scholars are attempting to measure the impact of social media on traditional media agenda setting. The subject is probably too new to study at the third level, but social media's effect on individual issues have been studied, such as California's Proposition 8 (Sayre, Bode, Shah, D., Wilcox, & Shah, C., 2010) and the Occupy Wall Street movement (Grzywinska & Borden, 2012).

But the important point is that more people in general and young people in particular are getting their information from more, not fewer, sources that are far more interactive, which tend to be affected to some degree less by national mass media agenda setting. The case could be made that the internet and social media have enfranchised, or at least democratized, the group Noam Chomsky referred to as the "ignorant meddling outsiders (1997);" those people

distracted by sports and celebrity scandals as opposed to the political and business class who read the *New York Times*.

### **Evolution of police practice**

As this transition in media occurred in the past three decades, changes in the nature of police work have occurred as well. Scholarly studies of policing over the past several decades have focused on many discrete issues such as racial bias (King, 2008; Stucky, 2011; Kochel, Mastrofski & Wilson, 2011), factors affecting the likelihood of arrest (Chappell, MacDonald, & Manz, 2006), and violence involving police (Harmon, 2008; Fyfe, 1979), not always arguing against: "Nowhere is this view more evident that among intellectuals, for whom physical force is the antithesis of reason. It encourages a retreat from any serious consideration of how force is used, finding refuge in simple [and often simple minded] condemnation of its use and its users (Waddington, 1993). That decision-making process to arrest has been the subject of many studies. According to Hipp, Bauer, Curran and Boilen (2004), police are about 25% more likely to arrest an African American over a White person. Police are slightly more likely to arrest a person who is not cooperative (Engel, Tillyer, Klahm, & Frank, 2012). Also there are macro issues such as organizational culture (Roberg & Kuykendall, 1990) and administrative structure (Cordner, 2010) as well as dichotomies between management versus the "cop on the street" (Crank, Payn, & Jackson, 2004; Vito, Walsh, & Kunselman, 2005) which punctuate the literature.

But one of the most studied issues in the last three decades has been the very philosophy of policing itself. Policing can be said to have transitioned from a professional era, where police worked more reactively than proactively, cruising rough parts of the city in marked cars and creating a presence but waiting for something to happen, to a more proactive method of policing

that has come to be known has "community policing" (Kelling & Moore, 1988) or alternatively "order maintenance" policing, emanating from "broken windows" theory (Kelling & Wilson, 1982).

Broken windows theory originated in the early 1980s, and though it has been argued that some police departments had already been employing some variation of the practice (Harcourt, 2002), this form of policing became known to the media and popularized by the intensive order maintenance policing put into place in the New York subway system, and subsequently in the entire city, by William Bratton (Sousa, 2009) with the support of Mayor Rudolph Giuliani, who ran for mayor on a crime reduction platform (Bearak & Fisher, 1997).

This style of policing has prompted a decades-long debate in academia about whether, and if so to what degree, to attribute historic drops in crime rates across the United States to order maintenance policing – or to attribute less positive traits (Lorenz, 2010). It has been posited that the sharp drop in crime can be attributed to the use of crack cocaine in cities falling into disfavor in the 1990s (Bowling, 1999) and that intense policing against drug use and drug locations is most effective (McCabe, 2008). Sampson and Raudenback asserted that lower crime rates can be attributed to neighborhoods that have "collective efficacy" and that broken windows theory is "spurious." (Sampson & Raudenback, 1999) Others have chosen to emphasize the police officer as problem solver (Eck & Spelman, 1986). The debate continues.

What is less debatable is that many law enforcement agencies employ some form of community policing today, and that the public by and large supports it (Sousa & Kelling, 2006). That, combined with a twenty-year run of historically low crime rates, has police professionals "mystified" (Sousa & Kelling, 2006) by the scholarly resistance to order maintenance policing. This method of policing inherently requires more communication by police to the public and

more interaction by police with the public, whether via the mass media as presented by official channels such as press releases, to direct officer-to-citizen communication right on the street. Social media and community policing seem a natural fit, unlike police and the traditional media.

### **Police and traditional media**

Much of the literature that is directly germane about the relationship between police and media is based off Chibnall's concept that people "look to the mass media to provide us with information about those areas of social life of which we have little direct experience" (Chibnall, 1975) The relationship between police and traditional media (radio, television, newspapers, magazines) has been characterized as "a hostile one, chilled by conflicts, real or imagined (Kelly, 1986)." This conflict was pronounced enough that Northeastern University offered a course in the 1980s specifically to "debunk" the myths that police and the media had about each other. Writing in the *Columbia Journalism Review*, *Los Angeles Times* reporter David Johnston acknowledged that reporting about police work was not sophisticated, and tended to cover events that police were involved in rather than explaining to the public the culture and structure of the organizations (Johnston, 1983).

This lack of sophistication has been documented by Jarret Lovell in his book *Good Cop, Bad Cop* (2003), where he describes the dichotomous image that the producers of television content have toward the police in the United States and portray to the public. He makes the case that the television media in the US portrays the police as either heroic or bumbling. Police, the media, and politicians have a symbiotic relationship: the police monitor the media's portrayal of police while the media use the police for information and government officials use the media/police relationship to further its crime control objectives. Lovell concludes that police reform is borne from media, and thus a free and independent press is vital to police reformation.

This view that the media have taken to police had been illustrated ten years previous to the writing of Lovell's book, as described by Penny Parish, a journalist who took an internship in a police department to learn more about its workings, to the occasional irritation of the officers:

Administrators can start by comparing reality and fantasy. America has a fascination with the police, which is obvious by the countless hours and high ratings of television shows based on law enforcement. The majority show "good cops" engaged in heroic acts. The same holds true for movies. It's time for the public to learn about the good cops in your department. Police administrators need to use the media to get the message out. (Parish, 1993)

She essentially agrees with Lovell's concept that police need to better understand their relationship with the media: "(t)he antimedia bias expressed by law enforcement officers is often born out of ignorance about journalists and their work." However, given that the everyday work of police is not likely to garner ratings in an increasingly competitive news landscape (Beale, 2006), coverage by the traditional media of the more mundane aspects of police work may never be realistic. Richard Sparks in 2001 noted that crime stories in the news "have villains but also victims and heroes," providing the human angle as a hook.

Lovell's overall point, though, is that police have historically had a technological lag, which coupled with basic mistrust of the traditional media, has caused the police not to be as effective in communicating with the public as it should be. Lovell may have understated the case, as reviewer Steven Schuchart (2006) of the University of Cincinnati pointed out: "Lovell discusses the creation of "media managers" within police departments as something that has occurred in all police departments. This, too, is empirically unsound" (p. 58).

Typical coverage in the pre-internet age had perhaps created or at least contributed to the ambivalence that Americans have toward police (Weitzer, 2005) given that even fictional accounts of events on television can influence the political attitudes and policy choices of the

citizenry (Mutz & Nir, 2010) and in particular their views about crime and police effectiveness (Dowler, 2003). The advent of cable television and the 24-hour a day news cycle did not seem to fundamentally change the relationship between police and the media, and it did not prompt more scholarly research. Greer and McLaughlin wrote in 2010 that "(t)here is surprisingly little research on the relations between the news media and police chiefs. This coupled with a disinclination for cable news programs to invite academic criminologists to be interviewed (Frost & Phillips, 2009) continued the ambivalence of media toward police and thus the public's.

Another factor in police/media relations is the reactive nature of police. Intense news coverage of incendiary (and thus video-friendly) events put police in a position where oftentimes their dealings with – and disagreements with (Berg, 2011) – the media are during crisis situations. Caeti, et. al. (2005), describe what might be the stereotypical (albeit accurate) view of police media relations to the traditional media:

Clashes between police and members of the media at critical incident scenes have become all too familiar and commonplace — law enforcement personnel scramble to deal with protecting evidence, aiding victims, and interviewing witnesses while on-scene reporters and camera crews descend upon the situation to begin a piranha-like assault over local, state, or federal officers. (p. 86)

The piece discusses possible police strategies to deal with media in the wake of news-storm incidents such as the Oklahoma City bombing. Police acknowledge that this is a necessity, and today consulting companies such as Ryan & Associates Public Relations and Russell Ruffin Communications are devoted to helping police negotiate their relations with the media. But two of the major lessons were learned the hard way. In the Rodney King/LA riots situation, police learned two things, one for the rank and file, and one for administrators: for the rank and file, act

as though you are always on video (Parish, 1993), and for administrators, act as though you are always on top of things, focusing on the imminent priorities (Reinhold, 1992).

In some areas where the police have been successful in engaging the public, the argument could be made that they have been too successful. The public has embraced many police-inspired programs that have proven not to be effective or at least have hindered the ability of police to shape the way they do their jobs. The 911 system has been effective, but may have contributed to hamstringing the police such that police must respond to 911 calls rather than proactively engage in police functions that have been demonstrated to reduce crime (Sousa & Kelling, 2009). The reactive nature of the 911 system could be said to be at odds with "intelligence-led" (Ratcliffe, 2003) policing. One study about the popular AMBER alert program asserts that it has been "oversold" and that the alerts do little to stem dangerous child abductions (which the authors contend are fairly rare to begin with), but instead serve as "crime control theater" that can actually cause public backlash when its unrealistic expectations are not met (Griffin & Miller, 2008).

Among journalism and communications studies journals, we find less empathy toward the police and more content such as articles that describe police roughing up journalists at protests (Handschuh, 2000); how Maricopa County, Arizona sheriff Joe Arpaio uses the media to salve over what the authors call "violation(s) of human rights" and "tortures" of inmates (Macdonald, 2009); interrogation tactics (Stokoe, 2009); First Amendment issues (in which the police are generally impediments); and fictional programming portrayals of police, indicating that they foment deference to state and police authority (Mutz & Nir, 2010).

But another strain of thought from criminal justice scholars posits that the media contribute to support from the general public for harsh police policies. Ben Bagdikian's views are



referenced about the concentration of media. The book from which the Bagdikian quote is taken, *Justice Blind*, is a criminal justice textbook. Since the police are generally supported more by conservative politicians, goes the narrative (Shelden, 2014), that concentration among increasingly right wing outlets would imply that the job of police public relations should be getting easier with fewer outlets (thus fewer unsympathetic ones) with which to interact. This added complexity in the nature of new media exacerbates the challenge of understanding media effects on the criminal justice system and police work. The media do have effects on public attitudes toward criminal justice which in turn have policy effects (Stroman & Seltzer, 1985). Surette writes that "(d)espite much interest, however, the exact nature of the relationship between the media and criminal justice system is not well understood (1992, p. 291)."

But there are scholars in that camp, though, who believe that the effects of the media on police work and criminal justice policy are very much understandable:

That is the story: over the past four decades, for partisan electoral gain politicians made crime into a major social problem, contriving increasingly counterproductive policy responses. A small segment of the public has been involved actively in these policy fights, with legitimacy and financial support (institutional and government grants) given to those whose goals are consistent with the increasingly punitive policies. A profit-seeking media, built around sensationalistic news and graphic entertainment, made the general public accepting of these reforms. (Parker, 2005, p. 73)

Barlow, Barlow and Chiricos in 1995 surveyed the content of *Time* magazine articles about crime since World War II, and concluded that crime reporting there was "ideological" and gave an "inadequate and distorted picture of the contradictory reality of crime in the context of the capitalist political economy in the United States." Chibnall in 1975 believed that crime reporters – content creators – worked in concert with the police in the public interest and were "generally favorable to agencies of social control and highly unfavourable to the deviant (p. 63)." Tough on

crime attitudes and capitalism went hand in hand even before the advent of "sensationalistic" 24/7 cable news.

Some scholars, perhaps in response to order maintenance policing, take the reciprocal view that it is actually police who manipulate the media rather than vice versa:

The work of the modern police apparatus is highly dependent upon media technologies. This article traces crucial developments in this history, analyzing the central role that media have played in policing practices since the advent of the modern patrol in the late eighteenth century. We trace how the governmentalized police force has used media to govern efficiently what Foucault calls the three great variables: territory, speed, and communication. In conclusion, we consider the possibilities for resistance in a time when digital police media have given rise to alarming strategies for surveilling populations, stifling dissent, and exerting control over public and private space. (Reeves & Packer, 2013, p. 359)

Mawby wrote in 2010 that though the media/police relationship "favored" the police, there continued to exist a "healthy tension" between reporters and police media professionals (Mawby, 2010). There is continuing evidence of this tension almost daily. New York Magazine recently characterized the NYPD as having performed more intense surveillance of its citizens than the NSA (Apuzzo & Goldman, 2013). The Houston Press reporters Terrence McCoy and Craig Malisow wrote that the reality television program *The First 48* contributes to the glamorization of police work to the detriment of those who have been wrongly accused of a crime. There is still suspicion of the traditional media by police (Wilson, Howe, Kemp, & Tolputt, 2011). That was true in the age of dominance by big newspapers and the three major television networks as well as was the era of cable television news. The relevant question is, in the era of social media, does this dysfunctional (or symbiotic or reciprocal or manipulative or mutually beneficial) relationship change in a way that actually benefits the public. Or from a scholarly perspective, how does it change, if at all?

## **Police and social media**

The literature directly concerning police use of social media is relatively scant, perhaps because the use of social media has become a mass communication phenomenon only in the last five years. Facebook had only 1 million users in 2004 but crossed the 1 billion mark in 2012, a factor of 1,000 in eight years (The Associated Press, 2012). Unlike the number of articles about police relations with the traditional media (unrevealing as they are), very little research has been done at all about police use of new media to interact with the community. This is unexpected given that some scholars seem to be more supportive of community policing (though not of intensive order maintenance policing) than "professional" policing, and that community policing by its very nature would seem to auger intimate relations with the community; that is, direct communication with the community via social networking sites which eliminates the middle-man (i.e., editorial control).

Empirical data about how police have used social media (if at all and to what extent) were barely existent in 2010. Of 161 academic journal articles in the UNLV library electronic database under the subject matter subheading of social media in May of that year, none involved police use. Of the top three criminal justice journals (Sorensen, 2009), *Criminology*, *Justice Quarterly*, and *Journal of Research in Crime and Delinquency*, a survey of every volume dated from 2010 to the end of 2013 yielded no article at all about police use of social media. A search of the University of Nevada, Las Vegas online journal database in October of 2013 yielded 1,419 results when searching for the subject term "social media." When a search was performed for the keywords "police" and "social media" in abstracts of peer reviewed journals, only 21 results appeared. A repeat of the exercise in January of 2015 yielded only 12. Journalism journals do

delve into new media subjects; one study looks at how police organizations in the UK use rhetoric on their websites to maintain their legitimacy (Sillince & Brown, 2009).

### **Toward content analysis**

As slowly or ineffectively as police may have dealt with the traditional media, many departments are using, if not embracing, social media, and have been at least since 2010. A study in 2010 by Sakiyama, Shaffer, and Lieberman at the University of Nevada Las Vegas found that 23 of the top 61 police departments by census population rank used one of three social media: Facebook, YouTube, and/or Twitter. Of 15 smaller police departments whose websites were surveyed, none used any of these social media. There is then a group of 27 larger city departments that used social media in 2010, a group of 33 larger city departments that did not use social media, and 15 smaller departments that did not use social media. (Sakiyama, Shaffer, & Lieberman, 2011). The researchers surveyed the content of police websites to determine how they used Facebook (Sakiyama, et al.). While some aspects of police use could be considered surveillance – a "tips" section encouraged people to report others to the police – in a sense recruiting the public to help with the surveillance effort. But police used Facebook for several other purposes, as the researchers found. They categorized three months of Facebook entries from 23 police agencies in 2010 and discovered varied uses for that social media, with differing posting frequency as illustrated in Table 2 adapted from their chart below.

Early indications were that the police agencies' message was getting out. One survey in a mid-sized Canadian city found that the younger, more educated people who accessed police social media sites were more likely than older non-users to express satisfaction with the police (Ruddell & Jones, 2013).

Table 1. Police use of Facebook in 2010. (Number of Facebook posts per category in the three month period per department.) Source: Sakiyama, et. al., 2011

<u>Category</u>	<u>All PDs</u>	<u>High Freq. PDs</u>	<u>Low Freq. PDs</u>
Crimes	49.83	55.27	29.34
Public Relations	21.81	19.57	30.28
Other	13.88	11.87	21.45
Direct Communication	3.11	3.43	1.89
Alerts	2.84	2.58	3.47
Tips	2.64	1.67	6.31
Officer Injured	2.51	2.42	2.84
Missing Persons	1.45	1.51	1.26
DUI	1.45	1.09	2.84
<u>Recruitment</u>	<u>0.46</u>	<u>0.50</u>	<u>0.32</u>

The information in Table 1 tells us what type of information police departments were choosing to make public on Facebook and gave an early glimpse into potential message success, but did not tell us what information police are taking in from Facebook. Daniel Trotter created a theoretical framework that views policing of social media not so much as a sophisticated use of technology, but instead an exploitation of the sheer volume of social interaction on social media: police are able to monitor far more "social" interactions than before social media's existence (Trotter, 2012). The 2011 riot in Vancouver, British Columbia after the hometown Canucks lost the Stanley Cup to the Boston Bruins generated an incredible amount of information to the police. According to the Canadian Broadcasting Company: "Police have received about 3,500 email tips from the public including: 53 with videos attached; 280 Crime Stoppers tips received; 344 emails containing only text; 676 with links to YouTube; 708 tips with images attached; 1,011 with hyperlinks to other social media sites other than YouTube (mostly Facebook) (CBC

News, 2011). Police ended up charging over 200 people with riot-related crimes, some more than two years after the actual event (The Canadian Press, 2013).

Police were using social media for investigation; there is even a how-to book to guide law enforcement (Brunty & Helenek, 2013). The NYPD created a social media unit to mine Facebook and Twitter (Parascandola, 2011). Clayman and Skinns discussed the problem of young peoples' avoidance of cooperating with the police ("snitching") and the possibility that social media could change that dynamic (2012). Social media could be an avenue toward collecting information. One example of this was the use of social media by a local newspaper in order to get information about a sensational murder case (Thompson, 2009). The use of social media got the newspaper (the *Tallahassee [Florida] Democrat*) not only information, but drove traffic to its website of young people interested in the murder of a 23-year old police informant. Another example was the use of video uploads to YouTube and Facebook helping police in Montgomery County, Maryland, identify the participants in a "flash mob" at a local 7-11 convenience store, where a group of teenagers descended upon the store, intent on overwhelming the few employees there to steal merchandise (Law Enforcement Technology eds., 2012). There have also been cases where criminals simply uploaded their misdeeds to social media sites, essentially handing the police evidence, such as the man (with a past record) who brandished a gun while driving recklessly in Oregon, then uploaded a 4-minute long video to YouTube (Ortiz, 2012). These examples demonstrated that police were having the same success using social media to apprehend criminals as they had on Web 1.0 (chat rooms, bulletin board sites) employing the technology to apprehend sex offenders against minors (Mitchell, Wolak, Finkelhor, & Jones, 2012).

Social media use by police and other government authorities was mentioned as part of the overall crime control strategy by law enforcement that Haggerty and Ericson refer to as the surveillance "assemblage" (2000). The growth of this assemblage results in a surveillance state that comprises very minor encounters with the surveyors, but a huge and growing number of them (Barnard-Wills & Wells, 2012). Social media offered the opportunity for the number of encounters to increase, but with the distinction that the information is voluntarily given up by the users of social media. As many countries implemented new and advanced forms of identification (Lyon, 2010), a person's Facebook page could serve as an online identifier of sorts. This was especially true as popular news websites required a user to log in with a Facebook account in order to leave comments on a story. The question, then, is to what degree are police using these media and for what purpose.

But perhaps more remarkable than police surveillance in the Vancouver riot case was surveillance and shaming performed by the general public. This is raising concern among scholars about the rise of a new kind of surveillance state: "everyday life" surveillance (Barnard-Wills & Wells, 2012). Trottier says that people are in essence contributing to potential future investigations about themselves (Trottier, 2012), but this is not stopping young people from uploading. Taraszow, et. al., describe in the *International Journal of Media & Cultural Politics* how young people divulge contact information on their Facebook pages (Taraszow, Aristodemou, Shitta, Laouris, & Arsoy, 2010). Police employed social media extensively in the North London riots of 2011 as well, which may have been the first public order incident where social media was extensively used by police as well as the rioters, and then was studied by scholars (Procter, Crump, Karstedt, Voss, & Cantijoch, 2013; Williams et al., 2013). This content creation by the public was characterized by Marwick as "social surveillance," (2009)

though scholars who study order maintenance policing might contend that rather than surveillance, this is an example of members of the public enforcing social norms. One thing is clear, though. Regardless of how journalists or police choose to use social networks, and whether it is surveillance or simply informal social control, social media are becoming part of the fabric of young peoples' lives and there is no evidence that it is slowing down.

As it was written in 2003, *Good Cop, Bad Cop* could not have predicted the effect of the new media on police practice, though one professor, Peter Kirby Manning, writing in the Foreword of the book, is somewhat prescient: "Lovell describes the extent to which the police have always been media-sensitive and how they are now caught in a world wide web of electronic communications and swim in a sea of images..." (2003, p. v) As such, police agencies are dealing with the reality that they cannot merely liaise with the traditional media – something with which many departments have just recently come to terms – but that they have the opportunity (or burden) to also deal directly with the public from an information standpoint via social media if they so choose. This brings much more than simply a "sea of images"; it brings different types of media with different levels of interactivity and different abilities (or lack thereof) to control image and message.

Currently, many companies advertise by providing "tweets," having Facebook pages, by offering iPhone apps. Posting on YouTube for commercial purposes is not allowed, but public agencies can post videos on YouTube. These media have only become popular post 2010. There are other methods of internet information delivery: widgets, digs, and RSS feeds to name a few. These have been around longer, and are more akin to customization of news delivery rather than true interactivity, so the use of these by police would not necessarily be indicative of an inclination to invite more interaction with the community. Facebook, YouTube and Twitter are



more representative of new, interactive social media than even previous forms of computer generated communication. Despite that they are young, they are extensively used: Facebook has 1 billion users worldwide, 100,000,000 of whom regularly access it on their smartphone.<sup>2</sup> Among the challenges police – or any government agency or private company for that matter – face is that it is difficult to know which of the social media will remain dominant. Facebook seems to be locking in place a formidable position – 73% of all online adults use Facebook (Pew Research Center, 2013).

Some police departments have created iPhone applications ("apps"), which fall more on the news and information delivery side of the equation like RSS feeds, but there is an element of interactivity depending on the nature of the app. Private developers, rather than Apple, develop many of the apps so it is difficult to make a blanket appraisal of an app's interactivity. But having an iPhone app does indicate forward thinking: The iPhone was not introduced until 2007 (Gallo, 2007). However, Twitter feeds and Facebook pages are much less expensive to maintain. Operating Facebook and Twitter sites costs nearly zero, though it requires manpower to maintain. This is a case where police agencies have the opportunity to manage their image without great expense, without having to hire consultants, and without having to change the way business is done. This makes it somewhat surprising that the smaller city departments were not early adopters rather than late adopters (or non-adopters).

Twitter is popular because of its inherent interactivity even though it is not nearly as popular as Facebook and YouTube . (A number of people use both Facebook and Twitter, and though they are separate companies, they each provide web pages to help users use both.) According to Nielsen Media Research, Twitter had more than 7 million users in 2014 and it is

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<sup>2</sup> These numbers are fairly staggering; business journalists (this one included) scoffed when private equity firms gave Facebook \$27 million in 2006. Nobody scoffs now.

somewhat of a myth that only millennials use Twitter: 3 million of those 7 million people are between 35 and 49 years old (McGiboney, 2009). There is evidence that Twitter may be losing ground despite the traditional media's penchant for covering celebrity and politician tweets. Pinterest is showing signs of ascendance versus Twitter, and now drives more traffic to publishers than Twitter according to the World Association of Newspapers and News Publishers (Veseling, 2013). Instagram is rising in popularity among young people (Lunder, 2014). Once you sign up to get tweets from a Twitter user, tweets get pushed directly to your cell phone if you choose that option, essentially meaning that despite its interactive nature, one could be a very passive Twitter recipient. This matters today. According to Pew, the number of young people who do not access *any* news sources has grown from 25% in 1998 to 33% in 2008. Though some interpret this as a bad thing or a dumbing down of America, it might well be that younger people have a different definition of what is news, or a different idea of what information is relevant to their lives. "Ignorance" might rather be self-editing. The choice not to seek information from traditional news outlets is not necessarily a proxy for willful ignorance. Having a Twitter account could mean that a young person wants information, but not necessarily the information that traditional news outlets are providing. Therein lies the opportunity for police agencies to possibly fill that information void.

### **Social media, police and the public**

Social media, the ubiquity of video cameras and the ease of upload of video to sites such as YouTube, however, means that police may not control the narrative to the degree they would like (Wilson, 2000) in incidents where citizen perception of use of force, wrongful arrest or police misconduct may be part of the equation. Police departments, however, would have the same ability to share their side of the story without intermediation from members of the press.

The ubiquity of social media and cameras and smartphones with the ability to instantly upload video to YouTube or Facebook would seem to auger regular Rodney King-type incidents. In the early 1990s, the price of video recording equipment sank to a level where larger numbers of people could afford them (Shapiro, 2010). By the late 1990s, a handheld video recorder cost well under \$500. But in the early 1990s, if someone videotaped a crime in progress (or more likely) an episode of apparent police brutality, the primary way to publicize the video was to send (or sell) a copy to a television news station. That is what happened in the now infamous Rodney King case, where an amateur bystander videotaped the beating of Rodney King by Los Angeles policemen. The exoneration of those police at trial prompted the LA riots (Los Angeles Fire Department, 2002). It was the editorial decision by the news stations to air the tape and to closely follow the trial of the officers (and the prosecution of the police with severe charges that may have been prompted by public pressure).

The Rodney King case was popularized because first Los Angeles and then national media chose to show it, and show it often. However, editors removed the first 13 seconds of the tape, which the jury did see and which prompted the exoneration of the officers at trial (Court Reporters News Bureau). This is precisely the editorial middle-man that YouTube removes, as was the case of the shooting of a man by BART transit police in an Oakland subway station (Vargas, 2009). News organizations were relegated to talking about how the information spread rather than what the information contained. And unlike the Rodney King case, in the Oakland BART case there were several videos taken at different angles rather than one distant, grainy one. YouTube also gives the ability to comment on the site, such that other witnesses who did not take pictures could weigh in about what they saw, unregulated by journalists' editorial standpoints agendas, or space or time constraints. Among the comments were accounts of the

man who was shot behaving belligerently to other riders on the subway before the incident, accounts which differ from the portrayal in the film *Fruitvale Station*. (Smith, 2013)

This new reality augured an opportunity for police, in an era of the popularity of community policing where a more communicative and interactive relationship was to be embraced, to share and impart information directly with the community. It was an opportunity to engage a public that wants to be involved, that wants to be engaged, and also an opportunity to employ the nearly ubiquitous cameras in circulation to help the police, rather than only to catch police in acts of apparent brutality, but to appeal to the public for information that augments the application of justice. George Orwell, in his oft-quoted book *1984*, was only half right: cameras would become omnipresent in society, but government would not control them all. Orwell, a self-described socialist (Orwell, 1950), did not consider that the degree of mass production of cameras required for totalitarian surveillance would necessarily cause their price, black market or otherwise, to continually decline, making them so inexpensive that even the poor could own them, as is the case today. Cameras, far from a tool of government control, have become a check on government that has become perhaps as equally powerful. Police have found themselves on the "check" side of the equation fairly regularly, especially if traditional media picks up a story that goes viral. If the contrast between the one-directional news coverage of Rodney King and the public ambivalence toward the Oakland BART station incident are representative of the potential for "citizen witnessing" (Andén-Papadopoulos, 2013) – and uploading – police organizations have a once-in-a-generation chance to change the equation and have far greater influence over their public image, and serve the public well by giving it a better understanding of what the police actually do, what they should do, and what they should not have to do.

There are challenges as well as opportunities, and the police agencies are still forming their social media regimes and as such there is no theoretical framework in place for the study of police use of social media. Studies of discrete cases of police use of social media have been done, but mostly in trade journals (and much of it emanating from the International Association of Chiefs of Police's Center for Social Media) as instructional rather than the creation of an explanatory or theoretical scholarly body of work. In one case, Johnson County, Kansas, experimented with the use of social media to inform the public about how the local jail is operated (Erickson, 2013). New York City may have made the first attempt at uncensored interactivity with the public by inviting tweeted pictures of people with NYPD officers, but many tweeted pictures depicting varying degrees of possible police violence. CNN's "viral video" commentator called the idea a "fiasco" (Robbins, 2014). Roanoke, Virginia is using Facebook in an initiative "to develop a cyber-community policing philosophy" (Jones & Johnson, 2011). In one case, public information officers were surveyed about their use of social media in the context of emergency management (Hughes & Palen, 2012). One article offered insight into the use of social media during the management of crisis on college campuses; another chronicled the Boise, Idaho, police department's crafting of a policy to prevent individual officers from posting digital media messages that could be construed as representing the department's views (Masterson, 2011). Yet another discusses the use of social media sites to perform background checks on potential police hires (Gutierrez, 2014).

Through the end of 2014, the academic study of police use of social media continued to be rare. More independent sites which claim to aid law enforcement in its utilization of social media have appeared, such the Social Media of Cops section of the Police One website, as well as LawEnforcement.Social, whose stated purpose is to "to bring social media managers who are

in the law enforcement field together in one place." The site Walking the Media Beat is a privately run consultancy by a 25-year police veteran that offers paid classes and other services to law enforcement media managers (Burrows, 2015). The media, however, are now very often covering the challenges and advantages of police using social media.

That consultancies are needed implies that social media are not simply a suite of tools to make policing easier. Though there are plenty of reports about police success using social media, such as a USA Today article about how college police departments use social media successfully (Raposa, 2015), social media deployment is not without its challenges. Hansen, in Government Technology magazine, wrote as early as 2011 that social media would necessarily change the nature of police work. One Reuters article from late 2014 says that for police agencies, finding threats online is a "struggle" (Chan & Dobuzinskis, 2015) and that when police identify a threat, questions emerge as to whether posts are First Amendment protected free speech or actionable threats (Kozlov, 2014) which become even more complicated when police are actually able to find someone who issues threats online (Solis, 2014). Social media further complicates events such as the *Charlie Hebdo* and kosher grocery massacre in Paris, where police attempted a gag order on social media as events were unfolding (Schechner, 2015).

In summary, the study of police use of social media is more embryonic than that use itself. Scholars have studied the relationship of police with the traditional media, and no single accepted framework emerged. Scholarly information about police use of social media is fragmented; there is no overarching theoretical framework that can be leaned upon to put the explosive growth of social media and its many implications for police agencies in a clean theoretical criminal justice perspective. Thus, this study sought to survey police use of social media in the first five or so years of the Web 2.0 era through the prism of diffusion of

innovations theory, to try to discover whether police agency adoption of social media has materialized in the manner that diffusion of innovations theory would suggest, hopefully leading to more research in the area and giving insight as to how police use of social media has evolved in the last five years and may evolve in the future. This study also discusses the policy implications of that evolution.

### **Diffusion of innovations theory**

Everett Rogers' groundbreaking work *Diffusion of Innovations* was first published in 1962, and as Rogers himself has said, "(n)o other field of behavioral science research represents more effort by more scholars in more disciplines in more nations." (p. xv) He is right: According to Google Scholar's count, his work has been cited more than 55,000 times in scholarly journals.

Rogers in *Diffusion of Innovations* says that most innovations, however beneficial they may be to the adopter, do not spread evenly or necessarily even quickly. Rogers uses the example of using limes and lemons in the British Navy to ward off scurvy; though many knew it worked, it was nearly 200 years from its first use to becoming the Royal Navy's policy (p. 8). In modern times, adoption times have certainly compressed from that, but the shape of the diffusion curve has not changed much. There are early adopters and later adopters, usually culminating in saturation.

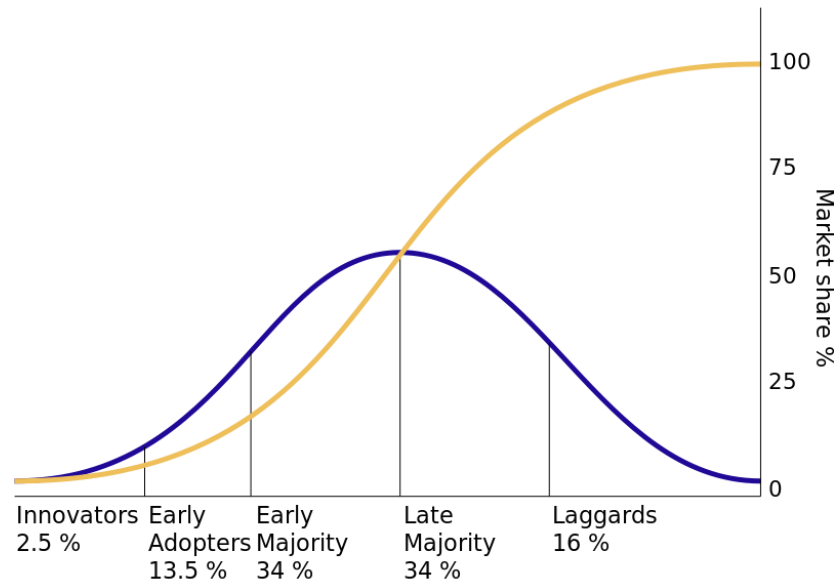


Figure 5. Adoption and saturation curves. Adapted from Rogers, Diffusion of Innovations, Fifth Edition.

Simply put, Rogers described diffusion as "the process by which (1) an *innovation* (2) is *communicated* through certain *channels* (3) *over time* (4) among the members of a *social system* (his emphasis) (Rogers 1962, p. 11)." That diffusion is not random or even, however. In his example of the adoption of hybrid seeds by corn farmers in Iowa in the 1930s, it is wealthier and more educated farmers who are the early adopters, and the later adopters generally adopted after having heard about their success from other farmers. As discussed previously, we can see that it appears that adoption of social media by police increased from 2010 to 2014, and that larger departments adopted earlier, but that smaller departments' rate of adoption had gone up in the intervening years. However, the sample size was very small. This survey aims to demonstrate that this early survey evidence accurately reflected diffusion of the innovation of social media, through channels (larger agencies and channels such as the International Association of Chiefs of Police Center for Social Media) over time (2010 to the present) in a social system (police organizations; chiefs/sheriffs/heads of departments). The analysis tests if there is an effect of



positive deviance among smaller, less cosmopolitan departments and department heads, as well as a look at reinvention effects, if any, were brought to bear by the late adopters and laggards in their use of social media.

Diffusion of innovation theory has been applied to a number of technologies and innovations in many disciplines, and over the years has been adopted to study the social sciences and government as well. Early work on innovations in government measured policy innovation adoption among the 50 states and mapped the factors impacting 88 policy innovations (Walker, 1969). As local government grew and took on increasing responsibilities, Bingham studied both product and process innovation at the municipal level in the 1970s (Bingham, 1978) and other studies demonstrated that size was a strong predictor of the innovation tendencies of municipalities (Smith & Taebel, 1985).

Policy diffusion research proved popular in the 1990s and continued into the 2000s. In 1996, Hays demonstrated that reinvention occurs in virtually all state policies and laws in the form of increased comprehensiveness of law and policy, and that especially in less controversial legislation, laws and policies tend to become more comprehensive over time than that of controversial legislation (Hays, 1996). In 1997, Mintrom named "policy entrepreneurs" as an "identifiable class of political actors" who drove policy innovation, in this case in the issue of school choice as a legislative option to measure diffusion. And though diffusion of innovations theory tells us that wealthier, more cosmopolitan individuals are more likely to be early adopters, according to Brudney and Selden, the research does not apply as neatly to organizations. Also, most policy diffusion research focused on municipal governments whose population was more than 50,000, yet computer adoption among smaller cities followed much the same patterns as

adoption did among larger municipalities (Brudney & Selden, 1995) and policy innovations tend in the United States to come more from the local level (Schneider, Teske, & Mintrom, 1995).

Innovation policy research began to evolve beyond single-issue research and became more about theory testing and the effects of other policy inputs. Burke's dissertation examined how policy processes (such as ideology or bureaucratic design) impacted diffusion of innovations policy research (Burke, 2000). Teodoro took a "supply side" approach to policy innovation in 2009, showing that policy entrepreneurs were more likely to be leaders who came from other organizations (in the same field or otherwise) rather than people who were promoted from within (Teodoro, 2009).

The theory has been applied to non-government policy actors as well, such as the STOP AIDS movement in San Francisco in the 1990s, which "was founded and implemented by respected leaders of the target community, rather than by "outside" professional organizers and educators" (Rogers, Singhai, & Quinlan, 2009). The study chronicled the success of the program, which not only seemed to follow inadvertently the tenets of diffusion of innovations theory but also Lewis' theory of small group communication.

### **Diffusion of innovations theory and police**

Though no studies employing diffusion of innovations theory have been done directly on police use of social media, the theory has been tested in other aspects of police work. In 1979, Lingamneni asserted that police organizations were resistant to change, and attempted to measure that resistance and understand what the factors were of that resistance. This view was repeated as recently as 2007 (O'Neill, Marks, & Singh, 2007) however there were sweeping changes in the nature of policing starting in the 1990s (community policing, crime mapping), as noted in Chapter 1, and there was occasional work on diffusion theory among police

departments. Some innovation research was done in the 1990s. According to King (2008), much of the earlier work in innovation in police work only studies the larger departments in part because smaller departments did not keep data (and King's own dissertation, which identified 10 distinct categories of innovation within police departments, focused on the largest 432 departments). In 1996 Mullen wrote a dissertation on the diffusion of computerization technology among police departments. He presents a comprehensive history of police innovation throughout the 1900s such as the use of guns, uniforms, and 24-hour departments. Among the findings for computerization adoption were that agencies that were already inclined to innovate with programs such as the D.A.R.E. program, K-9 deployment, and bicycle patrol were correlated with computerized agencies versus non computerized, followed by high per-capita spending rate. Earlier adopters of computerization correlated to larger departments, and adoption of more software was correlated to low police per citizens ratios (Mullen, 1996).

But research on innovations in police agencies were not in abundance then despite interest by scholars in policy innovation in the 1990s. Klinger wrote that "(t)he study of diffusion of innovations has a longstanding history in the social sciences.... but criminologists have largely ignored the topic" (2003, p. 461). Some proliferation did occur in the 2000s (Willis & Mastrofsky, 2011). Anthony's 2003 dissertation studies the diffusion of computer usage (including laptops) for use in better response times by sergeants of the Hanover County, Virginia, sheriff's office. Schaible and Sheffield (2012) researched the reasons for adoption of intelligence-led policing after the creation of the Department of Homeland Security (and its influence and funding ability) after the September 11 terrorist attacks. Weisburd, et. al., studied the diffusion of computerized crime mapping, finding that its diffusion is linked to research demonstrating the effectiveness of hot spots policing, and thus to departments that have more

interaction with the criminology research community (Weisburd, Mastrofski, McNally, Greenspan, & Willis, 2003), although Moore opines that the use of COMPSTAT and COMPSTAT-like strategies might ultimately dampen innovation (Moore, 2006).

Scholarly interest is still fairly new, though, and Willis and Mastrofski suggested that police innovation research in the future should focus on the environmental, structural, cultural, individual versus organizational aspects of diffusion, and should view innovation using multiple theories. They also discussed the fact that much innovation research is concerned with the relative success of an innovation. DeGarmo wrote that criminology scholars should take a step back and look more closely at the networks through which innovation information travels (2012). This work sought to understand what police agencies are doing with social media, if anything, and why. It is likely too early to determine whether or not social media are a success or whether it works for police departments; that would involve defining success and creating a view of what a success endpoint looks like. The research asked why police agencies have adopted social media, when they did, and what they were doing with it. It is fairly straightforward diffusion research with an eye to ascertaining the current state of police agency public relations, and if in fact police view social media as an innovation at all, given the anfractuous relationship that police have historically had with traditional media and the resultant public views about police work and crime in general. In that sense, it has taken DeGarmo's advice and took a step back, using strongly researched theory rather than attempting to create new theories or scales that, rather than contribute to our understanding of the criminal justice systems, add layers of abstraction that will not contribute to understanding of the realities of police work and police relations with the public.

## Diffusion of innovations, police, and social media

The use of social media by the general public has reflected Rogers' S-curve to a great degree, with the curve taking a sharp turn upward in 2008 that continued until 2010 (see Figure 6). By 2010, adoption among police organizations had not approached the 61% that the general public had. We know from the Sakiyama, et. al., content study that even among the 62 largest departments, only about one third had adopted Facebook. Five months before the advent of the IACP's Center for Social Media, Geary (2010) performed a survey to see if police agencies were

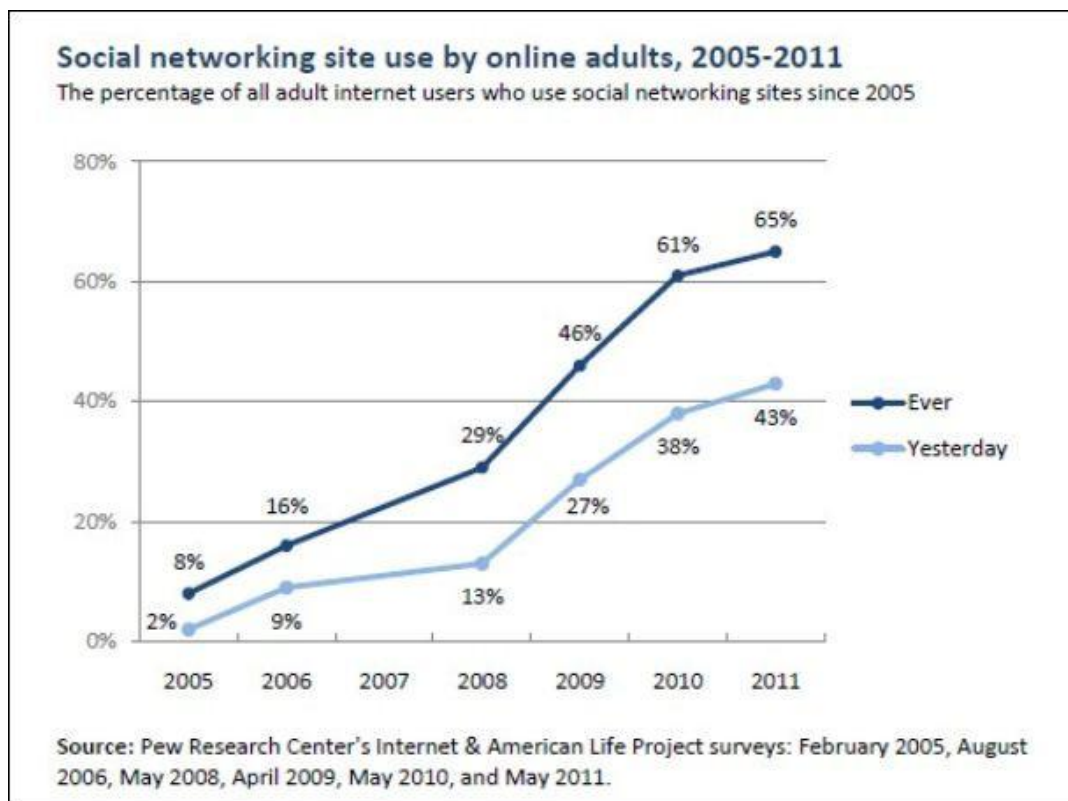


Figure 6. Social networking site use. Source: Pew Research Center website

embracing social media. Simply mining data from websites may be non-traditional research, but new technologies and methods of communication may necessarily warrant non-traditional

research: Edwards, et. al., wrote that "(s)ome commentators suggest this innovation generates methods and data that can act as a surrogate for more traditional quantitative and qualitative research designs such as experiments, sample surveys and in-depth interviews (Edwards, Housley, Williams, Mat., Sloan, & Williams, Mal., 2013). The research determined whether the

Table 2. Social Media use by 20 U.S. police departments, 2010 and 2013

City Census Rank	April, 2010			October, 2013		
	Twitter	YouTube	Facebook	Twitter	YouTube	Facebook
1. New York	T	Y		T	Y	F
3. Chicago		Y*		T	Y*	F
6. Phoenix	T	Y		T	Y	F
7. San Antonio				T	Y	F
9. San Diego						F
11. Austin				T	Y	F
13. Indianapolis		Y	F	T	Y	F
17. Charlotte				T		F
18. Detroit	T	Y	F	T	Y	F
31. Las Vegas	T	Y		T	Y	F
112. Aurora, IL				T		F
126. Huntsville, AL					Y	
131. Brownsville, TX						F
134. Providence, RI				T	Y	F
135. Jackson, MS						
136. Garden Grove, CA				T	Y	F
137. Oceanside, CA				T		F
140. Rancho Cucamonga, CA				T		F
145. Vancouver, WA				T		F
149. Sioux Falls, SD				T	Y	F

Note that city ranks have changed since the Census Department released 2012 estimates.

\*Chicago does not use YouTube primarily but has created its own video portal called CLEARtube.

Source: Geary (2010)

most popular media and which of these media (if any) were used by 20 police departments. The same departments' websites were surveyed again for social media presence in 2013 (see Table 2).

Police departments in 10 of the top 20 US metro areas with populations of over 100,000 were

selected (United States Census Bureau, Population Division, 2012); 10 ranked among the middle-sized cities were also selected. Social media links had to be on the homepage to be counted. The chart indicates the city's rank in the census, with the presence of Facebook indicated with an "F," Twitter with a "T," and YouTube with a "Y." The results show a clear distinction between large city agencies' use of social media versus usage by smaller city departments in 2010.

In 2013 this "digital divide" had closed somewhat, but smaller departments were not at adoption parity with larger departments. The largest cities had the most comprehensive use of social media, and typically more sophisticated websites. However, there was also disparity in how the social media sites were placed and how prominently they were displayed. The nation's largest metropolitan police department, that of New York City, has not only been at the forefront of community policing strategies that involved copious communication with the public and media in the 1990s (Golub, Johnson, Taylor & Eterno, 2003), but has been at the forefront of use of the department's website and more recently, social media. The design of the NYPD website has changed little from 2010 to 2013. In 2010, NYPD featured Twitter and did not use Facebook at all. In 2010, the website said that "NYPD is now on YouTube." (NYPD has gone beyond Facebook, Twitter, and YouTube and now also has its own iPhone app.) Despite these recent changes, the NYPD website has not changed in its already sophisticated design (see figures 7 and 8).



Figure 7. Screen capture, NYPD website, April 2010. Source: NYPD



Figure 8. Screen capture, NYPD website, November 2013. Source: NYPD.



In 2013, the department website asked you to become a Facebook friend, of which it had 188,000 as of November, 2013. The department also had a video section that is YouTube-based. NYPD says several YouTube videos are designed to help citizens of New York avoid crimes such as bike thefts. A number of the precincts and organizations such as the Pension Fund and the NYPD Museum within the department have created their own social media presence as well.

The Chicago Police Department did not use Facebook or Twitter in 2010, and technically did not use YouTube. Instead, it had an internally produced YouTube-like video site called CLEARtube. In 2013, the agency has included links to a Facebook page as well as a Twitter feed, but the user must scroll all the way to the bottom of the website to find those links. However, on the City of Chicago's website, on its police page, these links are higher on the website but the icons are much smaller. On the police department-specific website, the department says that it implemented its community policing strategy 15 years ago and that the concept meant different things to different people and departments. There is a "learn more" link which leads to a website for each of the department's precincts. The department's website has links also for crime tips, crime statistics, and a link to directly report a crime online.

The department still uses CLEARtube rather than YouTube. The 2013 incarnation of the site generated an invalid security certificate warning and then led to a terms of use page agreement page. Persons under 17 are expressly not allowed to enter the site except with parental permission, which is interesting since one would think that young people who do not listen to their parents might be a target audience. The videos are all department selected and there is not a comments section.

The Phoenix Police department employed YouTube and Twitter in 2010, but not Facebook. By 2013, the Phoenix Police website had added Facebook. YouTube serves the

purpose of the department providing news-like reports of what it is doing in the community. As an example, on November 2, 2013, the headline on the website, with an accompanying YouTube video, was "A Hoarding Story" about a 71-year old Vietnamese immigrant whose time as a prisoner of war translated later in life to hoarding, and the police response, which was to spearhead a community clean-up effort to make the man's house habitable (Phoenix Police Department Facebook Page, 2013). However, there was no ability for the public to comment on the story (or others), and the comments were disabled for that video if accessed on YouTube directly rather than via the Phoenix Police website. This may suggest that the department was avoiding one crucial aspect of social media: interactivity.

Other departments had different emphases for use of social media on their websites. San Antonio's lack of social media use at the time was surprising given that San Antonio has a Hispanic majority (US Census Bureau, State & County QuickFacts, 2013), and research shows that Hispanics were more likely than any other ethnic group to use online social networks (O'Hara, 2009). Austin, Texas, which is considered to be one of the most tech-savvy cities in the country, had no social media presence on its website in 2010. By 2013, Austin did have links to Facebook, Twitter, and YouTube, but they were not prominently featured. And as shown in Table 1, the larger cities were varied in their social media use in 2010, but by 2013, adoption had hit near saturation.

Smaller city departments in 2010 that were surveyed did not use social media, implying that smaller departments had for the most part not adopted social media then. In 2010, the Jackson, Mississippi site streamed the city's police scanner broadcasts. The Brownsville, Texas, and Sioux Falls, South Dakota, police departments did not even have their own websites but rather a page embedded in the city's website. Huntsville, Alabama's site had a community

relations as well as a police relations page. However by 2013, all but one of these city departments used social media. The increased sophistication of mid-sized city websites can be seen in this illustration of the evolution of the Rancho Cucamonga website.

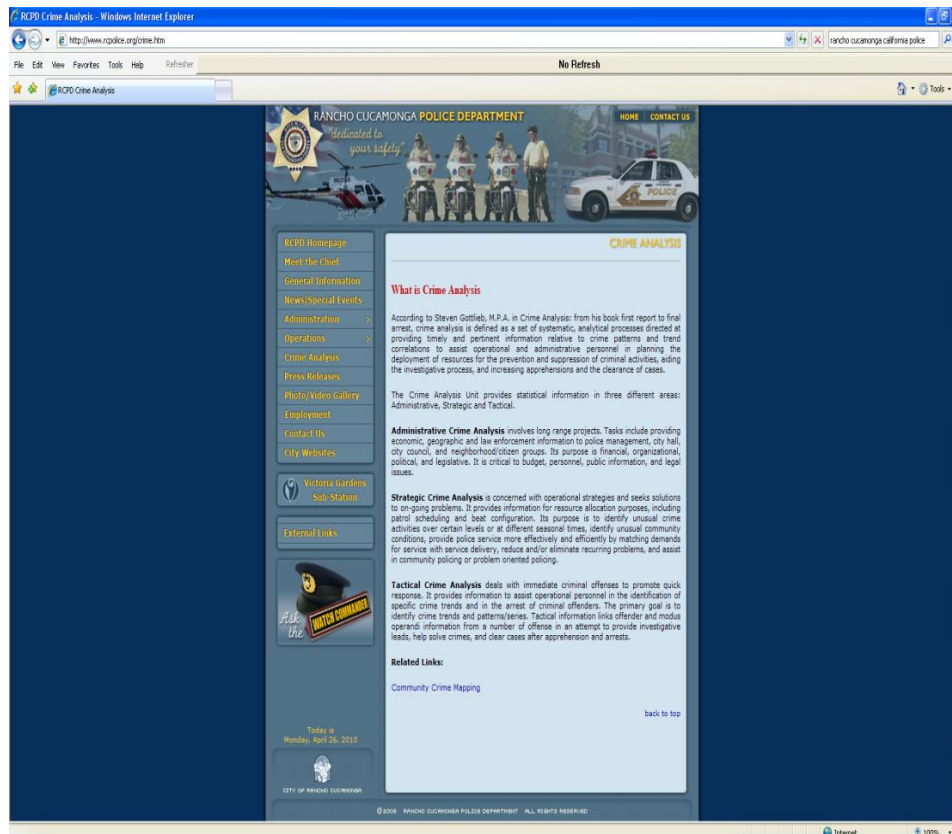


Figure 9. Screenshot, Rancho Cucamonga, California Police website, April 2010. Source: City of Rancho Cucamonga Police Department.

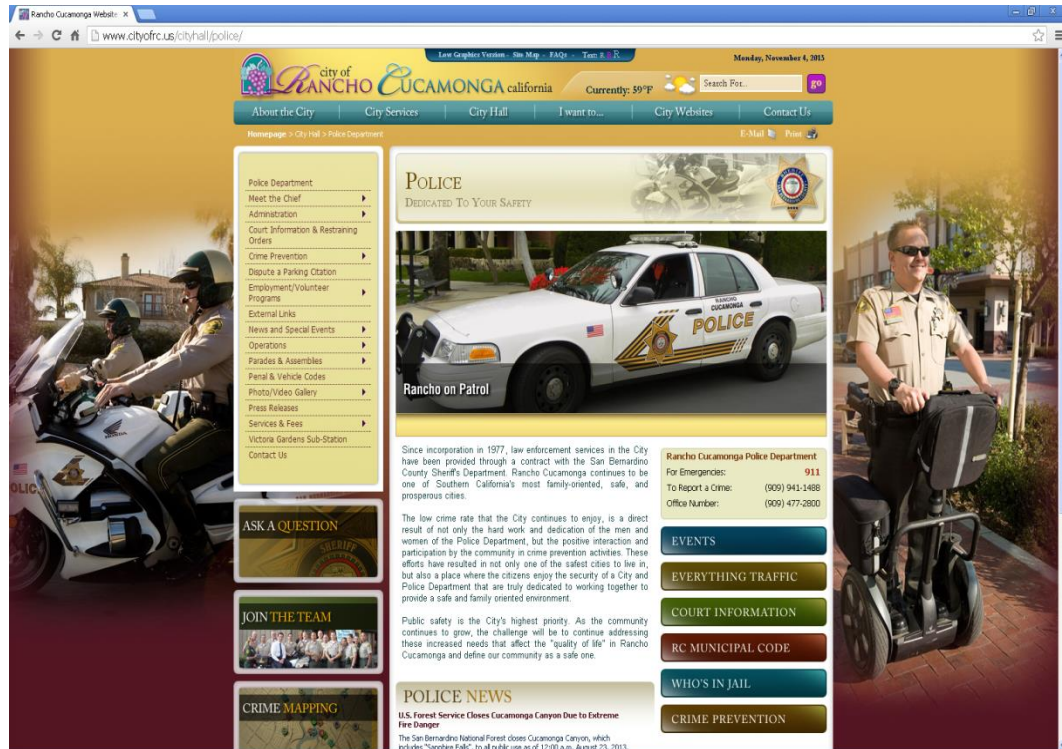


Figure 10. Screenshot, Rancho Cucamonga, California Police website, November, 2013. Source: City of Rancho Cucamonga Police Department.

Based on the results in 2010 for mid-sized cities, only five cities at the bottom of the census list were looked at, number 265, Wichita Falls, Texas; 267, Davenport, Iowa; 269, Columbia, Missouri; 271, Rochester, Minnesota; and 273, Wilmington, NC. None used social media. By 2013, police use of social media had risen and continued rising. What factors explained this rate of adoption, and for what were those department using social media, and why? That is the crux of this study.

## **Chapter 3**

### **Theory Application and Methodology**

#### **Research overview**

The purpose of this study is to demonstrate the speed and scope of police adoption of social media, explain why police have chosen to use social media, and explain for what purposes police use social media. Put elementally, the study sought to explain the when, why, and how of police use of social media in its evolution from 2010 to 2015, viewed through the lens of diffusion of innovation theory. Public communication by government, despite its obvious importance to the success of a functioning democracy replete with vigorous citizen participation (Janda, Berry, & Goldman) has historically been "a neglected area of scholarly interest" (Canel & Sanders, 2012. p. 85). Reciprocally, public sector managers need an understanding of the practice of public communication in order to do their jobs effectively (Mordecai, Neeley, & Stewart, 2012, p. xi). And according to Bimber, the media used (internet versus traditional) by citizens to interact with government shapes to a degree the type of contacting activity that occurs between the two; thus a shift to social media would have ramifications even beyond those included within the scope of this study (Bimber, 1999).

The overarching research question that was studied is at what rate did police adopt social media as a public communications practice (i.e., speed of the diffusion of the innovation). The general hypothesis is that police departments were relatively early adopters of social media, or at least followed the S curve that is the backbone of diffusion of innovations theory. Given that criminologists and others (Lingamneni, 1979) have asserted that police are slow to adapt and change, this general hypothesis does not emanate from criminal justice or political science theory but rather diffusion of innovations theory as the theoretical framework about which to

hypothesize, and then measure, the relative speed of adoption, and runs contrary to criminal justice assumptions. Among the research questions that would naturally emanate from the answer to the general research question of when is why have they chosen to do so, for what purposes have they done so, and ancillary to that, what relative importance do they assign to social media as a tool for doing their jobs.

One of the challenges of this type of study is to distinguish whether the diffusion of social media among police departments is a technology innovation or a policy innovation. Police are in fact adopting technology that requires a certain amount of knowhow, dollars, and which poses an administrative burden. Police chiefs and media professionals had to make the conscious decision to create a social media presence; that is, create a policy and a procedure, albeit using computer technology. They have done this before, both with general information technology (Skogan & Hartnett, 2005) such as the use of COMPSTAT crime incident mapping technology, first widely used by the NYPD (Weisburd & Lum, 2005). There is more vagueness about the distinction in these cases than the choice to adopt a new hard technology such as a TASER. And Graeme Boushey describes the quickness of a policy diffusion which was not necessarily sought by police, but impacted them: the Amber Alert. He described the Amber Alert as not merely diffusion, but "contagion," (2010, p. 1) running past the inevitable unintended consequences that Rogers warned of (1983, p. 32) in rapid adoption situations. Policy can spread quickly, but police are not known for quick innovation, policy or otherwise, fairly or unfairly.

As chronicled in the literature review, the scant scholarly work directly analyzing police use of social media necessitated the deployment of theories and constructs from other disciplines than criminology in order to create a workable theoretical framework. The speed at which social media are evolving and the sheer volume of the communication being proffered is such that

measuring all that is actually out there is impractical if not impossible, though attempts at mass gathering of online behavior has been attempted (Gyarmati & Trinh, 2010). Therefore the best method to determine when, why and how police are using social media was to survey them and to actually read what they have posted. But as Surette noted, there are many methodological challenges in the study of the criminal justice system and media that are perhaps conflated in comparison with other social science pursuits. He suggested the use of multiple designs such as those that "combine case studies with data analysis (Surette, 1992, p. 300)." This study took that suggestion and employed a survey that allowed for the testing of several research questions, as well as a longitudinal study – case studies so to speak – of how police departments utilized Facebook in 2010 and then in 2014 and 2015.

In brief, the survey asked questions to demonstrate when the respondents adopted social media and characteristics about the department to formulate the "when" aspect of the study as well as questions about the police leaders' views about the efficacy of social media and the trustworthiness of the traditional media to formulate the "why" aspect of the study. The survey as well asked questions about the departments' non-public facing uses of social media for use in the "what" part of the study. A longitudinal Facebook content analysis study contributed to the public facing use of social media in the "what" dimension. A more detailed description of the methodology of each will follow a discussion of the rationale and general research questions and working hypotheses.

### **The when, mapping the evolution of police use of social media**

The general hypothesis is that though police departments have been characterized as slow to change, an analysis of police adoption of social media will follow Rogers' bell-curve adoption, but will show a steeper and to-the-left S-curve, indicating a more compressed time to saturation,

(i.e., early adoption). A secondary general hypothesis is that police will indicate that they have adopted social media in part via the influence of police channels such as the International Association of Chiefs of Police Center for Social Media, as diffusion of innovations theory would suggest. Also, as diffusion of innovations theory would suggest, agencies with more resources, i.e. larger-city departments, would be more likely to adopt earlier than smaller department. As well, it is hypothesized that departments where the chief has a higher level of education attainment will adopt earlier than those who have less such.

Though not an aspect of diffusion of innovations theory, the age of the chief was ascertained in order to determine if that correlates to time of adoption. Wealthier and more educated people among the general public have adopted social media earlier (as diffusion of innovations would assume), but younger people have adopted social media earlier than older people among the general public as well, and that is not what diffusion of innovations would predict. The age of the chief was tested to determine if this had any effect on police department adoption rates, and as well was used as a control variable and also was used to hold other factors constant.

Nine questions in the survey addressed the research question of what has been the speed and through which channels have police adopted social media, using the framework of diffusion of innovations theory. The questions (see Appendix B) also measure the characteristics of the departments in order to determine if police adoption of social media comports with diffusion of innovations theory's indications of what the characteristics are of early adopters.

### **The why dimension**

Adoption of social media, among other things, is the ability to communicate directly with the public as an alternative to communicating with the public through the filter of the traditional



media outlets, with which police have had an ambivalent relationship. In other words, it is essentially a demonstrably positive innovation, though perhaps not so obvious as limes for scurvy. However, early adoption could be because social media has other uses to police administrators above and beyond simply avoiding interaction with traditional media, such as critical aspects of police work like surveillance and investigation, as well as the more mundane tasks borne by any agency such as recruitment, event announcements and the like. The general hypothesis in the why dimension is that for certain tasks, police believe that social media is simply effective and that is why they use it for such purposes. This dimension borrows from the questions in Appendix B to establish why police employ social media for certain non-public facing tasks to determine their perception of relative efficacy of those tasks.

The larger general research question of this dimension is, of those departments that do use social media, why have they chosen to use social media, and secondarily, what policy changes have they made as a result of social media (even if they do not use social media). That is, why have they changed policy or practice because of social media?

In this section, police chiefs and/or department media professionals were asked survey questions to determine what they perceive to be the use and usefulness of social media. Do police believe social media to be a help, a hindrance, a necessary evil? Is social media adoption a response to mistrust of traditional media? Also, do police administrators perceive that the use of social media for crime tips from the public are working? Does public pushback toward police cause concern for the departments, such as "witnessing:" uploads of video to YouTube about incidents involving police such as alleged brutality, unprofessionalism, law-breaking, etc.; comments on social media that could be deemed "cop baiting"; general criticism of the police in online social media networks?

It is possible that police social media policy versus interaction with traditional media is a variable that is not measurable, because though it could be hypothesized that police are gradually shifting resources away from traditional media interaction to social media interaction, it does not necessarily follow that they believe that one is replacing the other. The desire to use one versus the other is not necessarily a zero-sum situation where preferences are mutually exclusive. But it can be asked if social media use has altered the relationship between police and traditional media and thus affected the department's media practice and policies. Also, department attitudes about aspects of social media that they do not control are measured; what is their view of the reciprocal citizen use of social media to comment on and document incidents involving police and citizens interactions that promulgate opinion about police. Is this considered an issue by the department?

As it pertains to other forms of interactivity, does the department allow comment to their website, Facebook site, or other social media sites, and are they monitored or censored?

Preliminary surveys such as that performed by Geary (2010) indicate a restricted interactivity with the public, indicating a lack of desire for this type of public debate forum. Police have adopted social media, but the general hypothesis is that they have not adopted perhaps its most powerful aspect – interactivity – and do not plan to in the near future.

Is social media a mechanism for controlling the narrative? What are the views of police of social media vis-a-vis traditional media? Does a negative view of traditional media influence suggest a positive view of social media? And do any of these views auger further innovation designed to respond to what may be considered the negative effects of social media, citizen use of social media to upload police/citizen interactions that could portray the officers in a negative light? Does a shift in resources toward non-traditional media away from traditional media indicate mistrust of traditional media?

Also, has the department created changed or created policies in the wake of highly publicized incidents of citizen camera use and citizen posting of videos and pictures onto social media with commentary? Courts have ruled consistently that citizen videotaping of police/citizen interactions have First Amendment speech protections, yet there have been many notable incidents of officers taking measures to prevent such taping (Hudson, 2012). Hudson notes that Bert Krages, a lawyer with a specialty in citizen videotaping, has said that "(l)aw enforcement personnel are still grappling with the idea that ordinary citizens have the right to take images, whereas previously such photographs and videos were taken by professionals employed by traditional media companies" (p. 14). Is this in response to the ability of a member of the public to upload the video to YouTube and let the general public comment about it? Is this considered less preferable to a citizen videotaping an incident and providing the recording to the traditional news media?

Several of these types of questions were folded into a scale that attempts to illustrate "control of the narrative" as well as distrust of the traditional media. Thus, pointed questions were asked about the police administrators' views about their perception of relative fairness of the traditional media in covering police work. Given the literature indicating earlier adoption among larger departments, it is hypothesized that larger departments would indicate greater distrust of traditional media and indicate a greater desire to control the narrative.

The "narrative quotient" scale is comprised of several questions (see Appendix C) and a scoring system designed to weight the answers of each. Cronbach's alpha was run to determine if the questions were an internally reliable measure of desire to control the narrative. It is hypothesized that desire to control the narrative would correlate to earlier use of social media, and more belief in the effectiveness of social media.

## **The what, non-public facing uses of social media and reinvention**

For what do police use social media? There are obvious uses such as crime tip reporting and public relations, but do police use social media in other ways? In some studies of diffusion of innovations in government, a concept known as "reinvention" had begun to be studied in the 1980s and 1990s (Hays, 1996). Rogers introduced the concept of reinvention in *Diffusion of Innovations*, and said that it comprised of changes made by later adopters; that is, later adopters did not adopt the same way the early adopters did, but instead "reinvented" the innovation in their own way based on the experiences of the early adopters.

Based upon the findings of the diffusion of social media use among municipal police departments, the study analyzed if there were signs of reinvention going on within police agencies, and whether that reinvention remained within the parameters of Rogers' conception of behavior of later adopters, to something possibly less predictable or more dynamic, or something that is congruent with more recent conceptions of "reinvention" of innovation in government agencies. Though many departments have sections on their websites or Facebook or Twitter pages for crime tips (which could both be considered aspects of both surveillance and investigation), that does not reveal whether police use social media for active surveillance or active investigation (crime tip sites being inherently passive). Several questions were designed to determine the use of social media for these non-public facing uses, and coupled with the demographic information, determined whether these uses of social media could constitute reinvention that had been adopted more so, if not led, by otherwise later adopters. The general hypothesis is that later adopters use social media differently than earlier adopters. Several survey questions (see Appendix B) measured this aspect of the research.

## **The public facing what, changes or stability in Facebook post content from 2010 to 2015**

For what do police use social media? One of the obvious uses, out of necessity, is to police cybercrime, (Wall & Williams, 2013) but police agencies each craft their own policies for the use of social media and utilize the new media in different ways and for different purposes. As previously noted, Facebook is by orders of magnitude the most utilized social media outlet by humanity compared to other social media outlets. Its omnipresence has real consequences for policy. Auer (2011, p. 710) wrote that "Facebook's breathtaking growth, the sheer number of its users, and the riches and attention garnered by its inventor, while impressive, are less interesting for policy purposes than are the possible and actual consequences of the medium on politics and public affairs." Thus a longitudinal analysis of the use of Facebook focused on determining for what police used Facebook in 2015 and 2014 compared to 2010, and what has changed or remained static.

Lieberman, Koetzle, and Sakiyama (2013) surveyed the Facebook posts of 23 large police departments that had Facebook activity during the time period of June 19 to September 19 of 2010, and coded posts to determine how police were using Facebook. The team studied the frequency of communication (number of postings per day) by each of the police departments. The content of posts by characteristics of police department were analyzed, and information about the links that were included, and where they led to, were recorded. (Information about that study is also contained in the Literature Review section of this study.)

Ten categories were used in the coding process for content: Alerts, Crimes, DUI, Direct Communication, Public Relations, Missing Persons, Officer Injured, Other, Recruitment, and Tips (see Appendix E). This part of the study replicates that methodology for the time period from June 19 to September 19 in 2014, in order to avoid variances based on the seasonality of police work (Hipp, et. al., 2004). The general hypothesis is that there would be measurable

change in the categories represented by the departments' posts. Changes would seem almost a certainty given the quickly changing nature of the use of smartphones, among especially younger people, creating a gap between what news consumers do on their smartphones and what news organizations (e.g., police media relations departments) can provide (Weiss, 2013). A significant difference in posting patterns in 2014 from the 2010 results could consist of more concentration among certain categories, less concentration in the categories, and a shift from some categories to others. Less differentiation could indicate a "tightening up" of range of topic for the purpose of being more strategic based on past experience about the efficacy of certain messages or posting patterns. The general hypothesis is that there will be more category concentration in 2014 and that the "other" category will be less prevalent, indicating a reduction in posts that do not serve an apparent specific purpose.

A similar latent content analysis approach was performed again in 2015. Originally it had been hypothesized that 2014 to 2015 would see a stability, as professional practices trickled down to more stations with typical later-adopter demographics. However, that hypothesis was updated because of the year-long publicity about police shootings, the public unrest surrounding those events, and the Black Lives Matter movement. The working hypothesis was changed to indicate a belief that police Facebook posts from 2014 to 2015 would change from general public relations to more emotive posts designed to garner support for police.

## **Survey**

While Wright has argued that survey research as a method in the social sciences has been developed out of concerns more practical than academic (1988), surveys have been used for decades in academic research, especially in political research. According to Brady, no method is used more in political science (2000) and they have become ubiquitous not only among scholarly

research, but in business, in electoral politics, and by government agencies (Carlson & Hyde, 224-225).

At the most basic level, when measuring attitudes or views in social research, the aim is to start with an abstraction, define the abstraction such that an operational definition can be created, and then measure that operational definition (Carlson & Hyde, 2003). A primary challenge in survey research is to ensure that questions are worded so as not to steer the subject to a desired answer (Carlson & Hyde, 230) but instead to elicit the most honest – and valid – answer possible. Another challenge is to ensure that the survey questions possess measurement validity; that is, do they answer the questions that the research actually asks (Adcock & Collier, 2001). As such, the questions posed were worded in a straightforward manner so as to minimize any confusion about their meaning.

### **Detailed survey methods**

In part to avoid the pitfalls of non-responsiveness of survey recipients (Kreuter, 2013), the survey was 30 closed-end questions. There were filter questions asked in order to gather germane demographic data of the department heads such as age and education level which can be used as independent variables for which to be controlled and analyzed. The survey was emailed to the police chief or administrator with media responsibility to sample departments, measured by the population of the city or district that they serve. The study operated under the assumption that police departments in 2015, even small ones, had e-mail accounts and used them frequently. Recent email surveys of police have proven to have response rates adequate to an analysis of this type and with a response group size ( $n$ ) capable of producing statistically significant results, though Krosnick and others have argued that by the turn of the millennium, biases against low survey response rates were being challenged (1999).

For consistency of measurement, only police agencies in the United States were surveyed as police agencies in other countries have a very different history, culture, legal framework and operation and organizational structure (Das, 1994). Only municipal departments were surveyed given the different mandates of school police, federal and state police, and other specialized police agencies (Matthew, 2008).

According to the FBI's Uniform Crime Reports, for statistical purposes, the bureau divides agencies by the size of the population that they serve and the sample is organized based on these divisions (See Figure 11). The survey analyzed police attitudes about social media overall, but also analyzed differences in usage and attitudes between smaller and larger departments. Given the disparate numbers of departments in each category, and the reality that a random sample of police departments would be a de facto survey of smaller police departments, a disproportionally stratified survey was employed.

Group I (75 cities, 250,000 and over; population 56,040,960)	Group II (196 cities, 100,000 to 249,999; population 29,282,253)	Group III (426 cities, 50,000 to 99,999; population 29,406,808)	Group IV (798 cities, 25,000 to 49,999; population 27,574,550)	Group V (1,743 cities, 10,000 to 24,999; population 27,664,124)	Group VI (7,588 cities, under 10,000; population 23,053,050)
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Figure 11. FBI-grouped police department by size of population served. Source: FBI Uniform Crime Reports, Full-time Law Enforcement Employees, 2012

E-mails containing the survey questions were sent to all of the largest cities and all 196 of those in Group II. A random sample of 400 was drawn from groups III, IV, V, and VI. County agencies were omitted for several reasons: Their size range spans all of the municipal department groups and could be rural, urban, or both; their jurisdictions differ from state to state and occasionally may overlap a municipal jurisdiction, and their mandates differ from state to state



given that some states have strong county government whereas Connecticut has abolished county government (Kemp, 2008) and Massachusetts and Rhode Island have no unincorporated land whatsoever (US Census Bureau, 2003).

In the five categories that are not comprehensive (Groups III through VI), 400 departments were randomly selected by assigning each department a number based on population rank, and then running those numbers through Microsoft Excel's random number generator and choosing the top 400 for Groups III and V and the bottom 400 for groups IV and VI. The e-mail addresses of each resulting department were manually gathered by this researcher from publicly available sources, and the surveys sent out using the available Qualtrics internet-based survey software provided by UNLV.

In September 2015, surveys were sent via email to 1,825 police departments. Using the FBI's distinctions between city size in Figure 11, a disproportionally stratified survey method was created in order to achieve a random sample of each the various sizes of cities that would generate enough responses to produce statistically significant and meaningful, relevant results. A pure random sample of chiefs likely would have produced more than 80% cities that have less than 25,000 people and would be tantamount to a small department survey. The questions were of a nature that either the chief, or in the case of larger departments, the person in charge of media relations for the department could competently answer the questions as the media representative. Of course in the many smaller cities that were sent a survey, the chief is the primary media contact, and in the larger cities, the chances of getting the attention of the chief could reasonably be considered to be slim.

According to a recent meta-analysis of recent web surveys (Callegaro, Kruse, Thomas, & Nukulkij, 2009), emailed surveys that are sent from reputable, familiar organizations to targeted

potential respondents can expect a several point lower response rate when the emails sent have a generic salutation and are not personalized, and a higher response rate when the email is personalized. The decision was made to send generic salutations ("Dear Police Leader") rather than personalized ones, simply because it was determined that the research to gather more valid email addresses was more tenable than the time that would be expended personalizing nearly 2,000 emails in order to raise the expected response rate by a small number (2% to 5% increase of total send) than that which is typically expected. Also, there is some evidence that personalization affects data quality, with personalization being associated with respondents providing more socially desirable answers (Heerwegh, Vanhove, Matthijs, & Loosveldt, 2005).

All of the cities in the US with municipal police agencies and their populations were placed in population order on six Excel spreadsheets representing each of the six FBI groups. In the case of the largest cities, those with populations more than 250,000, those from 100,000 to 250,000, and those from 50,000 to 100,000 did not need to be randomized; an attempt was made to contact every one. For the smaller cities, 400 would be chosen at random in each of the three remaining groups: cities of 25,000 to 50,000, those of 10,000 to 25,000, and those with fewer than 10,000 people. In those three cases, the random number generator feature in Microsoft Excel was employed to assign a new random number to each, and then sorted. In each group there would be an attempt to harvest email addresses until 400 was reached. If a particular city's department chief's email address was not available, the next city on the list would be chosen until 400 were achieved.

For each city with more than 50,000 people, and using the formula explained above for the smaller cities, there was an attempt to find a personal email address for the chief of police on the police department or city website. Alternatively, personal emails to the media professional

were searched for as well (if both were found, the chief's office was sent the email). In many cases, the website listed the chief's email as a generic-appearing nomenclature such as "chief@cityortown.gov," sometimes in instances when all other members of the staff had a personalized email address. In some cases, the public was instructed, if she wanted to contact the chief, to email the chief's assistant or office manager. Those were viewed as valid and were used. In all cases, it was determined that if an email were not able to be found with alacrity on a municipal website or by a simple google search yielding a legitimate source on page one (such as a state's police chief association, for instance), that city would be skipped.

In the largest group, cities with more than 250,000 people, there were a total of 76 cities with municipal agencies of their own. Of these cities, it was not possible to find an email address for the chief or media professional in only Buffalo, New York. Of the 76 cities, three emails bounced, and research was re-done to find a valid address for those three cities. In the case of Washington, DC, the chief and the media professional were both mistakenly sent a survey (neither answered). Thus, a total of 80 emails were sent to solicit 76 departments total.

In the 100,000 to 250,000 population group, there are 213 cities, of which 207 have their own police departments. (Lancaster, Norwalk, Palmdale, and Santa Clarita, California, contract with the Los Angeles County Sheriff for their police services, as do Temecula and Victorville, California, with Riverside and San Bernadino County, respectively.) Of these cities, valid email addresses could not be found for Chattanooga, Tennessee, and Springfield, Illinois. The remaining 205 were emailed; 5 emails bounced and an attempt was made for those cities a second time. In one case, a city in this category informed the researcher that a blank survey had been accidentally turned in and that department had a second sent. (The blank one was thrown out and that city's second survey was filled out correctly.)

There are 428 cities in the 50,000 to 100,000 group, and of those, 335 had discoverable email addresses. Of those 335 sent, one email failed and 15 bounced, leaving 318 successfully delivered emails to these cities. In the three remaining groups, 400 emails were sent to cities in each group using the formula described above. Of these 1,200 emails to 1,200 cities, two failed and 52 bounced, leaving 1,146 successfully delivered emails.

The total number of responses yielded was 239. (A 240th was thrown out as blank as explained above.) In each case, a "submit" button had to be hit in order to turn in the survey and have it count as finished; those 49 that had been started but not finished were all disregarded. As such, it is assumed that any answers that were blanked were done so intentionally, with the exception of incongruous answers. Each of the surveys was checked to ensure that there was no reason to suspect unseriousness or a desire to invalidate on the part of the recipient. For instance, there was one response with a chief age of zero and one with a chief age of 80, whereas all the rest ranged from a very plausible 34 to 70 with tight means and standard deviations. The recipient was given a bar with a sliding arrow to indicate age, so the zero or 80 could indicate a desire not to answer the question rather than as attempt to invalidate, so those two responses were not thrown out except in cases where the age of the chief was a relevant variable. Also, in only one case out of the 239 did a respondent indicate that their department had no Facebook page, but indicated a timeframe for creating their Facebook page. In one case, a respondent chose not to answer any of the questions about surveillance despite the assurances of anonymity. The combination of a very high success rate with emails sent, the trustworthiness of the sources of the emails, the fact that all of the respondents of the survey answered all or nearly all of the questions, a design that inherently limits the presence of outliers, and the plausibility of chief age in all but two answers, gives confidence that the surveys have yielded intended and valid

answers. In the few cases with incongruous answers, those cases were considered when the variable involved was relevant.

Among the goals for the survey were to achieve 200 valid responses total and to attain either an *N* of 50 for each group or to have at least 10% of the total population respond to the survey in order to garner statistically significant and meaningful results. The low response rate for the very small towns caused a total response rate for them of below the desired threshold of 50, creating potential challenges about drawing inferences about the nearly 7,000 of them. Though the low total population for the two largest categories did yield a higher than 10% of population response rate, the decision was made to consolidate those top two groups for the purpose of analysis since stratification there served no purpose and the entire population was solicited, in effect creating a census rather than a random sample. The remaining three groups yielded more than 50 responses each (see Table 3). The total response rate for the survey was 13.7%, eclipsing the 12% range suggested by Callegaro, et. al, using this particular method.

Table 3. Survey response statistics

Population	Emails successfully sent	Valid responses	Response rate	Number of cities in group	Percent responding
>100,000	277	31	11.2%	282	11.0%
50,000 to 100,000	318	52	16.4%	428	12.1%
25,000 to 50,000	382	55	14.4%	828	6.6%
10,000 to 25,000	382	63	16.5%	1835	3.4%
<10,000	382	37	9.7%	6691	0.6%
<b>Total</b>	<b>1741</b>	<b>238</b>	<b>13.7%</b>	<b>10065</b>	<b>2.4%</b>

## **Longitudinal Facebook post content analysis methods**

Part of the study's "what" dimension employed a longitudinal data gathering and analysis of the Facebook posting practices of 23 police departments over a three-month period in 2010 (Lieberman, Koetzle & Sakiyama, 2013) and the same time of year in 2014 and 2015. According to Petersen (1993, p. 425), "It is common to all types of longitudinal data that one observes some social unit from at least two points in time." There is a rich history of longitudinal research in the social sciences (Young, Savola, & Phelps, 1991) "in which the researcher performs various analysis on data and explores within a more vague theoretical framework, using the findings for hypothesis generation which can be tested empirically on another set of data" (Magnusson, Bergman, Rudinger, & Torestad, 1989, p. 9) though there are problems of which to be mindful: "It is of foremost importance that the researcher is explicit about what theoretical concepts the studied variables measure." (p. 8) The variables measured were the frequency, selection, and dispersion of categories used in the 2010 study, as well as frequency of posting, and the public's reaction to the posting tendencies of the departments.

The original goal was to measure the change in rate of posting and to measure differences (or lack thereof) in the categories and types of posts between late June and late September of 2010 versus the same timeframe in 2014. However, on August 9, 2014, the shooting death of Michael Brown by Officer Darren Wilson, in Jefferson, Missouri, set off a series of events that continued well into 2015 (though they had arguably been simmering before that), and coincided with the lag time between completion of that aspect of the research and the ability to administer the survey and analyze the data. The decision was made to replicate the Facebook content analysis project again in 2015.

Replicating the same category designations employed by Lieberman, et al., all Facebook posts from the same 23 cities were coded in the same timeframe in 2014 and 2015. In 2014, posts from June 21 to September 21 and in 2015, posts from June 20 to September 20 were coded. The reason for this is that the original researchers started on a Saturday, and in order to avoid variations in the nature of weekend versus weekday police work, the same third Saturday in June was the start date. As in the original research, 92 days comprised the timeframe. Only the primary official website of the department of each city was coded. In the five years since the original study – at which time New York City did not have a Facebook page at all – many cities' departments now have multiple pages. Now in New York City, precincts have their own web pages. Police unions and fraternal organizations have Facebook pages, as do police athletic teams, fundraising organizations, and social groups. Each major city still has only one official city department page, and that was the focus of the analysis as it was in 2010.

### **Coding Process**

To code the posts by category, the description column was used as a rubric from the original study (see Appendix E). It should be noted that one major coding difference between the 2010 study and the 2014 and 2015 incarnations is that in the 2010 study, the researchers coded for secondary and tertiary messages within each post. Having found only 4 posts out of 1,396 that had a tertiary message, the researchers decided not to account for them. However, some sub-categories were coded twice, indicating that the post contained two distinct messages. Thus in the 2010 research, the primary category percentages added up to 104% and the sub-category percentages yielded a sum of 111%. Two-thirds of that variation can be found within the "crimes" category among its subcategories, indicating that about 7% of the messages were given a secondary message code and most of them fell within the "crime" primary category. The

decision was made to code only for a primary message, in part because the 2010 study yielded far less variation than the researchers must have anticipated given the many categories that were created on an *a priori* basis. Also, the researchers employed a team of coders and coded each post twice by a different person, yielding an 83% agreement rate (with a third person breaking the tie). It was decided that possible secondary message coding in each post required potentially three decisions: did the message have one or two messages, and if two, what two categories should be coded. Secondary message coding would thus likely decrease the coding agreement rate between the 2010 study and the 2014/2015 study likely more than normalizing the 2010 number for comparison purposes would.

A number of changes to Facebook were implemented between 2010 and 2014 that should be mentioned including some changes in nomenclature. In 2010, Facebook originally was simply a "post" format; that is, a user's main page was primarily a front-and-center page with a list of posts. In 2014 and 2015, a user's Facebook front page consists of a "timeline" which is the equivalent to the list of posts in the earlier incarnation of Facebook. There are also now sidebars with an "about" (this page) section, a photo section, a video section, a notes section, and other optional features. (They can be accessed as well by tabs just below the primary photo.) None of these have been measured or factored into this study.

In 2010, in order to follow an organization or individual's Facebook page, one became a "follower" of that page. For 2014 and 2015, "follow" had changed to "like"; that is, today to be a follower of a Facebook page, you "like" the page. That is not to be confused with the ability to "like" a particular post, which is a separate type of "like." The original study counted the number of followers each department had, and this study has done the same thing by tallying the likes of each department. Department likes were compiled on Monday, September 29, 2014 and on



Sunday, September 27, 2015. Daily variations necessitated compiling all 23 cities on the same day for comparison purposes. Links embedded in posts were not counted if the link was circular, one that referred simply to another part of the department's Facebook page (or the page the link was already on).

The findings of each component of the study follows.

## Chapter 4

### Findings, Survey

This research to assess police use of social media through the lens of diffusion of innovations theory is comprised of two operational parts, a survey and content analysis, to demonstrate time of adoption, its evolution, and for what police use social media in order to get as complete a picture as practically possible about the nature of American police social media adoption and use from 2010 to 2015. The first part of the research was an anonymous disproportionally stratified survey to ask police chiefs and media professionals about how they use Facebook and other social media, why they use Facebook and other social media, and certain demographic information about the department.

#### **The when, rate of adoption and factors**

The survey sought to measure the adoption rate of Facebook by police departments and to determine characteristics of earlier and later adopters, as well as to determine through which channels police adopted social media, using the International Association of Chiefs of Police Center for Social Media as the primary professional channel.

Table 4. Survey results, use of social media by police departments in 2015

Facebook and other social media	132
Facebook exclusively	56
Other social media, not Facebook	17
<u>Neither</u>	<u>31</u>
Total valid responses	236

Past research has demonstrated that city size was strongly correlated with early adoption of social media in 2010 (Geary, 2010) given that less than half of large cities had a social media presence then and far fewer smaller departments did. Size is still strongly correlated with social

media use. Of the 31 departments that did not claim any social media presence, four were in the 50,000 to 100,000 group, two were in the 25,000 to 50,000 group, 16 were in the 10,000 to 25,000 group and nine were in the under 10,000 group. All of the large cities surveyed had some social media presence, indicating at least near saturation when accounting for sampling error.

Table 5. Police department social media adoption by size of city served

	<b>Facebook</b>	<b>Other social media</b>	<b>None</b>
<b>&gt;100,000</b>	93.3%	90.3%	3.3%
<b>50,000 to 100,000</b>	81.1%	84.9%	7.5%
<b>25,000 to 50,000</b>	87.3%	68.5%	3.6%
<b>10,000 to 25,000</b>	71.4%	46.8%	25.4%
<b>&lt;10,000</b>	70.3%	27.0%	24.3%

Social media usage is strongly correlated with age and strongly correlated with level of education of the user among the general population (Perrin, 2015). (Race and gender are not significant factors, according to Pew (2015), and were not considered as variables in this study.) Among the respondents, the age of the chief did not directly correlate to city size (see Table 6), and the largest cities had the youngest mean age of chief with the other groups having means that were barely at variance, indicating that age of chief would not be a relevant predictor of social media use. Pew shows social media usage among Americans in the age 50 to 64 demographic as having gone down slightly in both 2014 and 2015 while leveling off for those 30 to 49, and still climbing for people younger and older than those groups, but age is still correlated with lower adoption rates among the general public.

Table 6. Mean age of the chief in each city size group

City Size	Mean	N	Std. Deviation
More than 100,000	50.8	37	8.13
50,000 to 100,000	54.3	63	7.16
25,000 to 50,000	53.7	55	6.45
10,000 to 25,000	52.1	53	9.81
Fewer than 10,000	54.0	31	5.62
Total	53.1	239	7.71

Education is another predictor among the general public, but that proved not to be the case for police chiefs. In this survey, education level of the chief does correlate to social media use, but with a significance of  $p < .056^3$  if the numbers are run using city size as a variable, not controlling for anything else, and considering that city size as a category is not random. This might indicate that something is relevant that warrants further analysis. Education level of the chief correlates much more strongly to the size of the city being served, and age does (negatively, at least in the case of cities with more than 100,000 people versus the rest). Within each of the groups, there was no strong (or any) correlation between the highest level of education of the chief and how early the departments adopted social media when controlling for age of the chief.

Given that city size is correlated with the age of the chief, at least in the largest cities, and that city size should not be treated as an independent variable because a random sample of police departments did not produce the city size data, separate analyses of each strata of city size was

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<sup>3</sup> The arbitrary nature of the .05 standard is discussed by Field in his text *Discovering Statistics Using SPSS*: "The fact that we still worship at the shrine of  $p < 0.05$ .... does make me wonder about a parallel universe where [modern statistics pioneer Sir Robert] Fisher had woken up in a  $p < .10$  kind of mood."

performed to determine intra-size effects of age and education on the rate of adoption when controlled for each other. While the largest departments have the youngest chiefs and the earliest adoption, it would be premature to determine that age was a significant factor. Those departments have the most resources, and large-department chiefs are more likely to delegate tasks and may be more removed from the decision-making process about use of social media than smaller-department counterparts. (This also may be a factor better explained by organizational theory than diffusion of innovations theory.) Leaving out the largest cities, among the four smaller-city strata, age (when controlled for education) correlated to early adoption only among cities in the 25,000 to 50,000 population range (see Table 7) but not the others, though average chief age and standard deviation was similar in each strata (see Table 8).

Table 7. Correlation analysis by city size; early adoption of social media by age and education of the chief holding each other constant.

	Age		Education	
	R	Sig.	R	Sig.
<b>&gt;100,000</b>	-0.116	0.393	0.051	0.393
<b>50,000 to 100,000</b>	-0.112	0.237	-0.122	0.209
<b>25,000 to 50,000</b>	-0.305	<b>0.012</b>	0.77	0.288
<b>10,000 to 25,000</b>	-0.14	0.174	0.22	0.69
<b>&lt;10,000</b>	-0.025	0.449	0.121	0.27

Table 8. Earliest reported social media adoption (Facebook or other) among departments with a social media presence

Population	2011 or before	2012	2013	2014	2015
<b>&gt;100,000</b>	65.5%	13.8%	10.3%	10.3%	0.0%
<b>50,000 to 100,000</b>	34.7%	22.4%	18.4%	14.3%	10.2%
<b>25,000 to 50,000</b>	28.3%	22.6%	20.8%	22.6%	5.7%
<b>10,000 to 25,000</b>	36.2%	19.1%	19.1%	19.1%	6.4%
<b>&lt;10,000</b>	35.7%	17.9%	10.7%	32.1%	3.6%

Size of department was the best predictor of rapidity of adoption, with the largest departments having a steeper curve to the left, indicating a critical mass of social media adoption in 2010 and 2011. Smaller city departments have followed a more steady adoption rate, with the smallest city and town departments leveling off. There is a near saturation of social media use in all but the smallest city and town departments.

Determining the rate and steepness of adoption by police departments is less straightforward given the paucity of information about aggregate social media usage by police over the years. The studies by Lieberman, et al., and by Geary in 2010 shed some light on the degree of adoption of larger departments in 2010, but adoption rates for 2010 for the smaller groups is sheer guesswork. Geary could not find any small city police departments that used social media in 2010 (albeit again from a very small sample checked), and focused attention on the larger city departments that could be shown to have usage. However the survey's question about year of first social media adoption allows creation of estimated adoption curves for each of the groups of departments (see Figure 13).

According to Pew, total adult usage of social networking sites is up to about 65%, while the survey indicates that smaller police departments have adopted at a rate of about 75%. Since the two smaller groups comprise 85% of all municipal police departments, and that larger city departments are at near saturation, the smaller departments are the only ones capable of moving the needle, although it is questionable why they would want to: rural residents lag behind suburban and urban dwellers in social media usage (Perrin, 2015). Also given the small sample size each strata of the survey, there is the possibility that small department chiefs who would be willing to take a survey of this nature may have a more positive attitude toward social media.

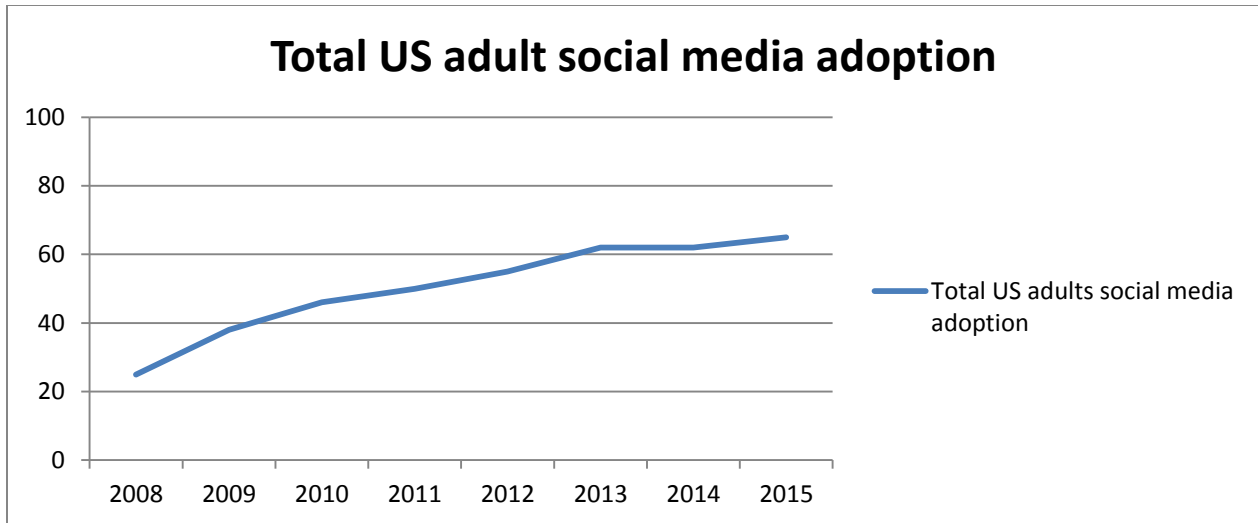


Figure 12. Total US adult social media adoption. Source: Pew Research.

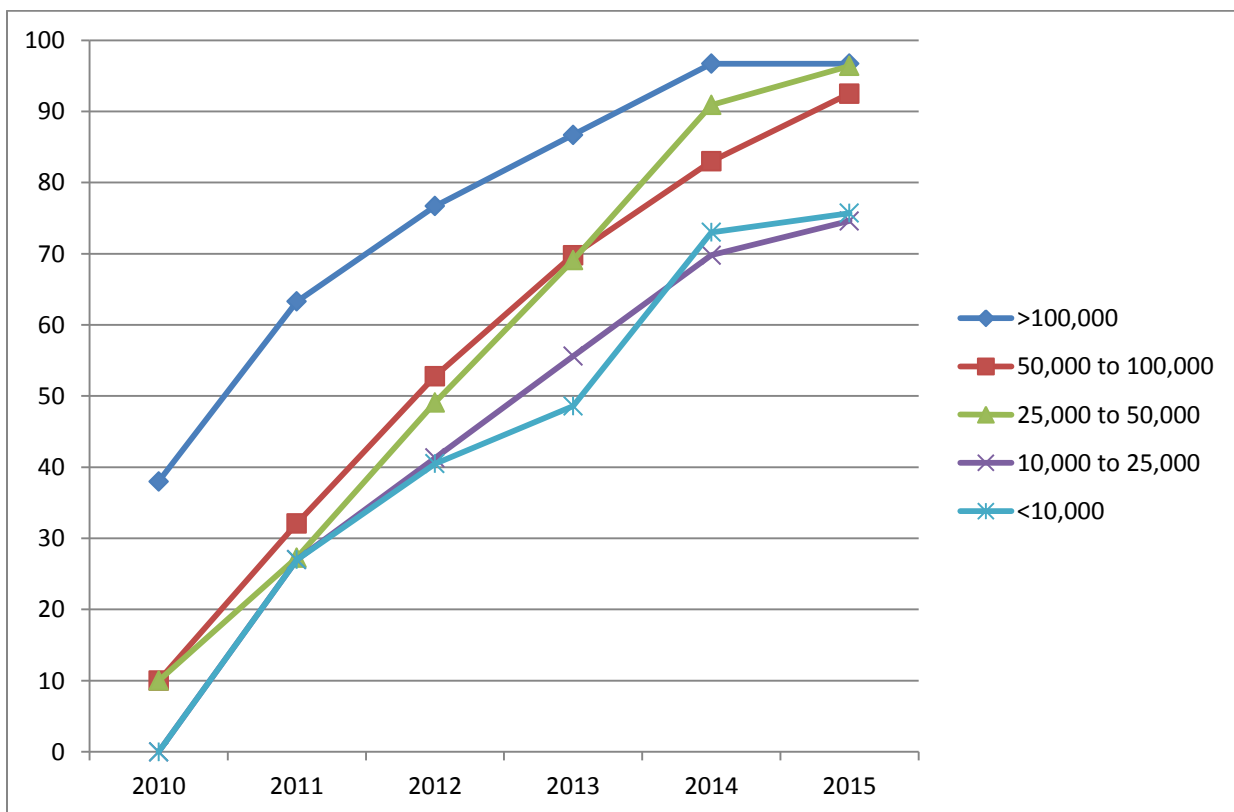


Figure 13. Estimated adoption curves for municipal department groups by population served.

The adoption curve of the police agencies is somewhat steeper than that of the general public (see figures 12 and 13) but that could be because using 2010 as a kickoff point, they were starting from a lower base than the general public. The curve is steeper from 2008 to 2010 for the general public; police experienced this steepness in about the 2011 timeframe. That would make sense. There would be fewer people to whom to communicate in 2008, and the knowledge that social media could be an effective investigative tool was not there (and the number of potential investigatees was low). As the survey indicates, unlike the steadier adoption of US adults, a later starting but more rapid adoption in the 2011 to 2014 timeframe saw larger departments increase from below 40% adoption in 2011 to near saturation by 2014. This analysis does indicate that the large agencies experienced a more compressed time to saturation, as diffusion of innovations theory would predict, is partially correct, while the adoption of the smaller agencies mirrored the more linear incline of the general public (albeit getting a later start). However, the pattern did not deviate substantially from what diffusion of innovations theory would assume: The wealthier (in this case, larger with more resources) and the more educated adopt earliest.

### **Channel derivation**

Rogers wrote extensively about channels as facilitators of innovation diffusion, and the survey sought to examine if the primary police professional channel having to do with social media, the International Association of Chiefs of Police's Center for Social Media, could be considered a primary channel of the diffusion. The general research question and hypothesis is that larger police departments will indicate more strongly that they have adopted social media via the influence of police channels, using the proxy of the International Association of Chiefs of Police Center for Social Media. The secondary hypothesis is that age of the chief will be



negatively correlated with use of the IACPCSM (indicating younger chiefs are more favorable to it) and that educational attainment of the chief will be positively correlated.

Table 9. Utilization of the International Association of Chiefs of Police Center for Social Media

Population	Aware of	Used to create sites	Usage in the normal course of social media maintenance				
			Very often	Regularly	Sometimes	Seldom	Never
>100,000	77.4%	23.3%	6.9%	3.4%	27.6%	10.3%	51.7%
50,000 to 100,000	67.9%	34.0%	1.9%	9.6%	25.0%	7.7%	55.8%
25,000 to 50,000	67.3%	34.5%	4.0%	16.0%	40.0%	12.0%	28.0%
10,000 to 25,000	54.0%	20.6%	5.1%	3.4%	28.8%	6.8%	55.9%
<10,000	45.9%	13.5%	0.0%	2.7%	20.0%	17.1%	60.0%

Among smaller police departments, about half of them are aware of the organization's existence. However, the usage totals indicate that those departments that are aware of the organization tend to use its resources, as the "never" number includes those departments that were unaware of its existence. Given largest departments' earlier adoption of social media than the others, it might seem surprising that fewer employed the resources of the IACPCSM in the creation of their social media sites, however the organization was formed in late 2010 when many large departments had already launched their social media sites. The 25,000 to 50,000 group is an anomaly; it could simply be sampling error due to the small sample size, or it could be that larger departments have begun to become confident in the deployment of social media, and with that middle group more recently hitting a saturation point, many of those departments are transitioning from recent adoption to the desire for a more sophisticated social media strategy.

Nevertheless in this case, the channel derivation hypothesis must be rejected. There is no clear correlation between department size and utilization of the resources of the IACPCSM. The

survey shows that departments serving mid-sized cities, those of between 25,000 and 50,000 people, reported using the IACPCSM's resources most often. Again, level of education of the chief and age of the chief was not a better predictor than size of the department, but there were cases where education level was relevant (see Table 10).

Table 10. Correlation of age and education of the chief to regularity of use of the IACPCSM

	Age		Education	
	R	Sig.	R	Sig.
<b>&gt;100,000</b>	-0.249	0.096	-0.251	0.94
<b>50,000 to 100,000</b>	0.12	0.206	-0.018	0.451
<b>25,000 to 50,000</b>	-0.004	0.489	-0.177	0.109
<b>10,000 to 25,000</b>	-0.139	0.147	0.128	0.168
<b>&lt;10,000</b>	0.056	0.376	-.317	<b>0.032</b>

The negative correlation demonstrates higher education correlated to more IACPCSM use because that was coded with a lower number in the survey questions. Of all the department characteristics, education of the chief is the one that comes closest to significance as a correlate of the use of this channel in the crafting of social media policy and practice among police departments. If this were an hypothesis, we would be forced by scientific convention to reject the null only in the case of the smallest departments in the case of education, (which is interesting) because of the unsatisfying eclipse of .05 in the case of the largest departments. But it seems something beyond just department size is a predictor or factor, at least to a small degree.

### **The why dimension, control of the narrative**

The why dimension is comprised of hypotheses that have to do with control of the narrative. Innovations are not adopted if they are not perceived to be at least somewhat beneficial, and given that police likely could not predict that social media would become such a favored method to perform aspects of traditional police work, it is likely that there was a

perception of some usefulness of social media on the public facing side among early adopters. Scholars have written about the desire of police to "control the narrative," whether that narrative be a general narrative to influence public perception of the police and their mission through public relations effort (Lee & McGovern, 2013) or a situational narrative that will favor prosecution of a suspect (Johnson, 2008). Influence is probably a better word to use than "control" because in reality nobody controls a narrative; there is instead a contest of influence. If one party controlled a narrative, there would be no contest. But there is little controversy in saying that every organization wants to have some influence over public perception of that organization. But how should "desire to influence" be measured?

The perception of impact felt by influences outside the control of the department is an indication of a desire to control the narrative. If outside sources of information or opinion are not trusted, it is reasonable to assume that there exists a reciprocal need to preclude the untrusted sources from contributing (likely negatively) to the narrative. The survey asked questions about the chief or media professional's view about negative experiences with social media, as well as perceptions about inputs to the narrative from outside sources, namely the general public and the traditional media. It is probably an overstatement to call this a measure of desire to control a narrative, but rather measures what the level of narrative influence insecurity there is on the part of the chief or media professional, i.e., the person in charge of steering the department's public relations and media apparatus. It is a measure of the likelihood of that department to adopt an innovation that might help in that regard.

Part of the rationale for having the survey be anonymous was the hope that there would be no inhibition to giving honest answers about these views. While police chiefs are public figures who are expected to deal with controversy and weigh in on controversial subjects, it was

assumed that anonymity would maximize not only response rate, but also candidness to these questions. The survey asked the degree to which the chief or media professional believed the media was fair, the degree to which social media has caused controversy for the department, whether the public should have a right to video and upload public interactions with the police, to what degree those uploads help or hinder police work, and whether they do or would allow unmoderated comments on their web and social media sites. Each of these addresses a degree of comfort with external inputs to the overall narrative and to public perception of police.

The working general hypotheses here are that police leaders who do not perceive that the traditional media fairly and accurately portray police work will skew toward larger departments and toward those that have shifted resources to social media from traditional media. Following this, because of a desire to control the narrative that police leaders will not allow for unregulated public debate on their sites and likewise will skew toward larger departments, and that departments that have shifted resources away from traditional media will perceive this.

Table 11. Department perceptions of media fairness and receptivity to public comment on social media

Population served	Perception of traditional media fairness/accuracy				
	Fairly/ accurate	Somewhat fairly	Neutral	Somewhat biased	Biased/ inaccurate
>100,000	1.6%	6.5%	11.3%	51.6%	29.0%
50,000 to 100,000	0.0%	15.1%	17.0%	34.0%	34.0%
25,000 to 50,000	0.0%	16.7%	14.8%	40.7%	27.8%
10,000 to 25,000	1.6%	6.5%	11.3%	51.6%	29.0%
<10,000	0.0%	13.5%	10.8%	48.6%	27.0%

Population served	Would allow unmoderated comments on social media				
	Does now	May in the future	Likely will not	Definitely will not	No comments
>100,000	35.5%	12.9%	22.6%	22.6%	6.5%
50,000 to 100,000	35.8%	9.4%	30.2%	15.1%	9.4%
25,000 to 50,000	25.5%	10.9%	38.2%	16.4%	9.1%
10,000 to 25,000	31.7%	6.3%	25.4%	14.3%	22.2%
<10,000	21.6%	10.8%	29.7%	2.7%	35.1%

A look at Table 11 shows that these numbers do not indicate that larger departments have significantly different outlooks about traditional media than smaller departments. (There is a slight small correlation in favorability to city size; the smaller departments have a slightly more negative view and yet again, significance is lacking at  $p < .054$ .) In fact there is striking uniformity in the views of chiefs and media professionals about the traditional media that does not paint a picture of favorability. Departments of all sizes display more favorability to the general public than to the traditional media, at least to the degree that public comments would or might be allowed. Larger departments are correlated somewhat more to favorably to unmoderated comments, and that was significant at .024.

The trust levels reported here perhaps indicate a change in police views about their relationship with the media. Chermak and Weiss in 2005 indicated that police professionals viewed their relationships with people in the media to be generally good and to be mutually beneficial (Chermak & Weiss, 2005), although a beneficial relationship may not necessarily be indicative of getting desired results from that relationship, much in the way a pharmaceutical company may indicate a "positive" relationship with the FDA that does not necessarily translate into a perception of lack of bias by the FDA in the perception of the CEO.

It is interesting to note that having shifted resources *to* social media is also correlated to a *lower* favorability toward unmoderated public comments ( $-.186, p < .004$ ). So simply distrusting the traditional media is not enough to move the social media resource needle, but trust in the public to make unmoderated comments is. Distrust of the traditional media is certainly there, but large departments are not leading the charge and these views are not predictors of social media resource reallocation. Favorability to unregulated commenting was *positively* correlated with a shift of resources toward social media, but not to deployment of body-worn cameras. It is not clear that the body-worn camera is an innovation. Cameras have been with us for more than a century and digital photography is now decades-old technology. They could be viewed as an ancillary component to social media, or as contributing to the reinvention of social media rather than as an innovation in and of itself. Or, they may simply be a defensive measure given the realities of social media. At least at this point in time with adoption in the 40%-plus range, this research would indicate that diffusion of innovations tenets may not be applicable. (Chapter 6 includes discussion and findings related to body-worn cameras.)

Those discrete questions directly answer aspects of two hypotheses, but only tell part of the story about a desire to control the narrative or an insecurity about external forces that contribute to the narrative. In order to measure perceived need to control the narrative, a scale was created using the answers of several of the questions discussed above. The scale is comprised of points assigned to each case based on the strength of the answer given using the scoring method in Appendix C, with a higher score indicating negativity toward external inputs. This narrative quotient was *negatively* correlated with the shifting of resources from traditional to social media. This would be difficult to explain if the narrative quotient scale created here passed an internal reliability measure. However, a Cronbach's alpha test showed these questions

do not approach reliability as an indicator of desire to control the narrative, with a score of 0.095; greater than 0.70 considered acceptable (Tavakol & Dennick, 2011). A failed scale might not be worth mentioning, but the reason that it is interesting is that the group of selected questions seemed to be clear indicators of that desire for control. It could indicate that police view traditional media, the general public, and social media as vastly different entities. Or it might just be a failed scale. Either way, it does not explain if desire for control of the narrative correlates to social media use or early adoption. It does call into question the idea that any desire to control the narrative even exists.

### **The non-public facing what, surveillance and investigation**

Police leaders in the survey have confirmed the anecdotal evidence provided in the Literature Review that social media are used to perform investigative and surveillance tasks.

Table 12. Percent of departments reporting using Facebook and other social media to perform investigative and surveillance tasks

Population	Investigative tasks		Surveillance tasks	
	Facebook	Other	Facebook	Other
<b>&gt;100,000</b>	87.1%	93.5%	71.0%	64.5%
<b>50,000 to 100,000</b>	94.3%	92.5%	60.4%	58.2%
<b>25,000 to 50,000</b>	96.4%	89.1%	74.1%	58.2%
<b>10,000 to 25,000</b>	96.8%	74.6%	63.5%	46.0%
<b>&lt;10,000</b>	84.2%	55.3%	50.0%	23.7%

A great majority of departments of all sizes use Facebook for investigative tasks with no linear correlation to be seen, and a strong majority of departments of all sizes use Facebook for surveillance, again with no apparent correlation, negating any need for statistics testing based on city size. Use of other social media for investigative tasks does however seem to the eye to be

correlated to department size, and that correlation is significant at  $p < .001$ . The apparent correlation for other social media use for surveillance tasks is also significant at  $p < .001$ . There was similar strong belief in the efficacy of social media to perform these tasks.

Table 13. Police chief/media leader belief in the effectiveness of Facebook and other social media for investigation and surveillance, percentages

	Investigation		Surveillance	
	Facebook	Other	Facebook	Other
<b>Definitely yes</b>	72.4%	55.6%	55.6%	31.5%
<b>Probably yes</b>	20.5%	30.4%	30.1%	33.2%
<b>Maybe</b>	6.7%	13.4%	13.4%	31.1%
<b>Probably not</b>	0.4%	0.8%	0.8%	3.8%
<b>Definitely not</b>	0.0%	0.0%	0.0%	0.4%

In the effectiveness case, some department characteristics did correlate with views on effectiveness. Larger departments were correlated with a more positive view of effectiveness, whereas age of the chief was correlated negatively with perceived effectiveness, and education of the chief had no correlation to view of effectiveness. While chief age has not seemed to play a part on department adoption of social media, it is interesting (however probably not surprising) that the older chiefs have a somewhat less optimistic view of the efficacy of social media in doing traditional police work. Some of these correlations were significant, as noted in Tables 14 and 15.



Table 14. Correlation significance on view of effectiveness by department characteristic of social media for investigative and surveillance tasks, uncontrolled

	Investigative		Surveillance	
	Facebook	Other	Facebook	Other
City size	0.082	<b>0.012</b>	0.14	<i>0.009</i>
Age of chief	0.714	<b>0.008</b>	<i>0.015</i>	<i>0.008</i>
Education level of chief	0.117	0.081	0.597	0.247

Table 15. Correlation of chief/media head view of the effectiveness of Facebook and other social media for surveillance and investigation by city size and with age of chief and education of chief controlled for each other

	Investigation							
	Facebook efficacy				Other social media efficacy			
	Age		Education		Age		Education	
	R	Sig.	R	Sig.	R	Sig.	R	Sig.
>100,000	-0.376	<i>0.019</i>	0.151	0.208	0.53	0.389	0.247	0.09
50,000 to 100,000	-0.01	0.472	0.24	<b>0.046</b>	0.101	0.243	0.033	0.409
25,000 to 50,000	0.246	<i>0.035</i>	-0.136	0.162	0.258	<i>0.029</i>	-0.094	0.248
10,000 to 25,000	0.008	0.477	-0.016	0.452	-0.018	0.445	-0.043	0.369
<10,000	0.146	0.195	-0.232	0.084	0.207	0.109	-0.104	0.27

	Surveillance							
	Facebook efficacy				Other social media efficacy			
	Age		Education		Age		Education	
	R	Sig.	R	Sig.	R	Sig.	R	Sig.
>100,000	0.012	0.474	0.446	<b>0.006</b>	0.2	0.14	0.443	<b>0.006</b>
50,000 to 100,000	0.113	0.22	-0.08	0.292	0.099	0.249	-0.071	0.315
25,000 to 50,000	0.346	<i>0.005</i>	-0.041	0.384	0.364	<i>0.004</i>	-0.108	0.22
10,000 to 25,000	0.158	0.11	0.089	0.245	0.169	0.094	0.025	0.424
<10,000	0.248	0.07	-0.302	<i>0.035</i>	0.266	0.056	-0.224	0.091

Smaller departments are not using Facebook and other social media pages for public communication to the degree that the larger departments are, but they are using it for investigative and surveillance tasks, and though not to the degree of larger departments, in higher relation to their public social media use (see Table 15). While about 70% of departments serving cities of fewer than 10,000 people report that they have a public Facebook page, 84% use Facebook for investigation. Likewise, only 27% of the smallest departments have a non-Facebook social media presence, but 56.8% of them use social media other than Facebook for investigative tasks. They use social media for its originally intended purpose *less* than they use it for a purpose that could be characterized as reinvention. In that sense, smaller police departments are doing what Rogers asserts about later adopters of an innovation: They use it differently than the early adopters.

The general hypothesis concerning whether the anecdotal news stories about police using social media for investigation and surveillance is confirmed, and is an example of reinvention of the use of an innovation. Smaller departments use social media for investigation and surveillance in proportion more than the larger departments vis-a-vis public relations. Among the largest departments, age of the chief was a significant predictor of views of Facebook efficacy for investigation but other social media did not achieve statistical significance, while education was a significant predictor for surveillance for both Facebook and other social media.

It is harder to draw conclusions about the smaller departments, because in several cases, age and education were significant predictors of the chief's view of the efficacy of social media. Several of the tests run showed significance in places, but no linear trend or identifiable pattern could be seen, other than to say that age and education level of the chief plays some role in their

views of the efficacy of social media to perform non-public facing tasks, but that role is not entirely clear.

The hypothesis that police leaders view tips from the public via social media to be helpful is not directly confirmed by their view of the effectiveness of social media to perform investigative and surveillance functions, however the fact that Facebook solicitations for tips are prevalent, and Facebook is employed more than other forms of social media by police departments, there is continued confidence in this hypothesis, though it warrants further research.

### **Summary**

The survey overall demonstrated that diffusion of innovations theory is explanatory to a degree regarding adoption of social media. As diffusion of innovations theory would indicate, larger departments were more inclined to adopt early, especially the largest departments, while education of the chief was a factor in certain cases. Age of the chief was insignificant in explaining adoption rates by police departments, which is not the case with the general public. The survey gives a perhaps surprisingly positive view by police leaders toward social media and Facebook, particularly among the larger departments. Police leaders' views of traditional media were more dismal than expectation, and the idea that police and traditional media have a symbiotic, synergistic, or mutual beneficial relationship does not seem to be held by one of those parties. Police had a generally positive view of social media for non-public facing uses, with larger departments and more educated chiefs in general correlating highly to the use of non-Facebook social media for surveillance purposes.

Among departments under 100,000 people, the age of the chief and education of the chief correlated to early adoption in certain cases rather than in a linear fashion. Channel derivation was not overall a factor in adoption overall, with only mid-sized departments having statistical

significance and usage of the IACPCSM having more of an inverted U-curve rather than linear.

Mistrust of traditional media was high across the board and not correlated with city size; however large departments were strongly correlated with allowing unmoderated comments on social media, implying possibly a wide trust gap favoring the general public over traditional media.

The next chapter discusses the second half of the what dimension, the public-facing use of social media and its evolution via the results of a study of how 23 of these departments have used Facebook in 2010, 2014 and 2015.

## **Chapter 5**

### **Findings, Facebook Post Content Analysis**

To measure changes occurring in the number of Facebook posts that police departments have been making since the nascent days of their use of Facebook, and to measure if there have been significant changes in the nature of those posts, a latent content analysis approach was used to study Facebook posts from a timeframe in 2014 and 2015 as they relate to the same timeframe in 2010 (and to each other). This comprises the public-facing "what" aspect of the research. The work by Sakiyama, Shaffer, and Lieberman was the first and only of its kind in 2010, a year that can be said to be the first meaningful Facebook use by police given the statistics in the Literature Review about the scant use of Facebook at the time, so that study was the only substantial information that could be used to compare Facebook content then and now.

As shown in Table 16, in 2010 there was great disparity among the cities in posting frequency, with Baltimore, Boston, and Richmond in the three figures while Oakland had only nine (in part because it established its Facebook page part way through the study period. In 2014, there was some compression in the posting disparity between the cities, with nearly half posting more than 100 times, and more than half doing so in 2015. Some did not have a linear progression of post increases (notably Chicago), and while most cities posted more often in 2015 than 2010, Richmond, and early leader in posting volume, saw total number of posts drop precipitously from 2014 to 2015. Houston, in contrast, had remarkable posting frequency consistency from year to year.

Table 16. Total Facebook post statistics for 23 studied city departments in 2010, 2014 and 2015

<b><u>DEPARTMENT</u></b>	<b>TOTAL POSTS</b>		
	<b><u>2010</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>
Baltimore	165	209	313
Birmingham	66	17	6
Boston	268	145	167
Chicago	67	21	137
Cincinnati	62	49	60
Dallas	34	261	207
El Paso	29	18	35
Fresno	14	178	182
Houston	85	85	81
Louisville	25	46	81
Minneapolis	27	104	176
Oakland	9	40	11
Oklahoma City	57	167	195
Omaha	31	190	193
Orlando	14	40	187
Portland, OR	42	258	187
Raleigh	19	22	19
Richmond	213	192	66
Rochester	24	13	15
Sacramento	48	198	238
San Francisco	33	55	66
Tulsa	25	140	111
Virginia Beach	39	39	105
	<b>1396</b>	<b>2487</b>	<b>2838</b>

(2010 data from Lieberman, et. al.)

### Followers and likes

All cities gained followers/likes between 2010 and 2014 and as well from 2014 to 2015, most of the cities at fairly steady rates and with a few notable steep climbers. And while not a significant linear regression, Dallas and Fresno had large annual rates of increase in likes in tandem with increases in posts by a factors of six and 12 respectively. Oklahoma City, Omaha,

Portland, San Francisco and Tulsa had more than 100% average increases in likes in the four-year period, and all but San Francisco had significant increases in their posting rate.

Table 17. Followers/likes statistics 2010-2015

	Followers/likes			Annual % increase	
	2010	2014	2015	2010-2014	2014-2015
<b>Baltimore</b>	3,675	27,177	116,569	160%	329%
<b>Birmingham</b>	1,347	4,817	6,979	64%	45%
<b>Boston</b>	2,598	114,547	158,996	1077%	39%
<b>Chicago</b>	14,414	57,277	85,398	74%	49%
<b>Cincinnati</b>	2,353	6,000	10,822	39%	80%
<b>Dallas</b>	4,611	54,151	79,279	269%	46%
<b>El Paso</b>	2,191	13,460	19,397	129%	44%
<b>Fresno</b>	1,562	35,666	53,222	546%	49%
<b>Houston</b>	19,435	62,119	90,155	55%	45%
<b>Louisville</b>	3,325	9,816	12,346	49%	26%
<b>Minneapolis</b>	3,455	10,292	14,811	49%	44%
<b>Oakland</b>	1,144	2,272	4,247	25%	87%
<b>Oklahoma City</b>	5,933	38,023	83,652	135%	120%
<b>Omaha</b>	6,188	32,665	79,484	107%	143%
<b>Orlando</b>	2,058	5,799	7,518	45%	30%
<b>Portland, OR</b>	1,726	13,173	17,252	166%	31%
<b>Raleigh</b>	1,625	3,897	4,767	35%	22%
<b>Richmond</b>	3,810	15,174	19,704	75%	30%
<b>Rochester</b>	2,594	4,602	8,147	19%	77%
<b>Sacramento</b>	1,965	9,293	12,833	93%	38%
<b>San Francisco</b>	2,600	15,997	30,303	129%	89%
<b>Tulsa</b>	2,044	25,939	38,711	292%	49%
<b>Virginia Beach</b>	2,960	7,789	10,390	41%	33%

In 2010 and 2014, the number of posts did not correlate to the number of followers/likes that a department had. However, in 2015, posting frequency was correlated with more followers/likes. Boston saw an exponential increase in likes between 2010 and 2014, likely an

effect of the 2012 Boston Marathon bombing, but which did not have an effect on the uncorrelated post/like ratio that year. Boston had fewer posts in 2014 than in 2010. Baltimore was an obvious outlier in the followers/likes area from 2014 to 2015, but even the removal of Baltimore did not change the significance.

Table 18. Analysis of effect of posting frequency on number of likes/followers, 2015

All cities

		2015 Likes	2015 Posts
2015 Likes	Pearson Correlation	1	.535**
	Sig. (2-tailed)		0.009
	N	23	23
2015 Posts	Pearson Correlation	.535**	1
	Sig. (2-tailed)	0.009	
	N	23	23
**. Correlation is significant at the 0.01 level (2-tailed).			

Excluding Baltimore

		2015 Likes	2015 Posts
2015 Likes	Pearson Correlation	1	.432
	Sig. (2-tailed)		.045
	N	22	22
2015 Posts	Pearson Correlation	.432*	1
	Sig. (2-tailed)	.045	
	N	22	22

It is curious that post rate would not be a statistically significant factor contributing to the number of likes that a department had in 2010 and 2014 but then would strongly in 2015. The hypothesis that posited that 2010 to 2014 would see greater post rates and greater dispersion overall was true. It was thought the rate would rise on a per-year basis as well and that dispersion



would increase, although at a lower rate, the thought being that after four years of trial and error among the 23 departments, best practices would emerge and that standardization would start to occur. The hypothesis has been demonstrated to be true, although it would be hasty to attribute the differences to rote standardization. In some areas, the differences between 2015 and 2014 were more marked than in the previous four years. Not only post rates changed, but the post content changed as well.

### **Post content trends**

In 2010, 2014, and 2015, posts fell mainly into the crime and public relations categories, with all other categories having smaller numbers (see Table 19). While the crime category was one of the dominant categories in 2014 and 2015, there was a sharp decline in the percentage of crime posts from 2010 to 2014, even when normalizing the 2010 number to 46% to account for the secondary coding. Lieberman, et al., pointed out that one concern is that crime reporting and exposure to news about crime has been demonstrated to heighten fear of crime.

Table 19. Primary category percentages for police department Facebook posts by year, all departments

	2010	2014	2015
CRIMES	49.40%	30.90%	32.90%
PUBLIC RELATIONS	31.00%	32.50%	38.70%
OFFICER INJURED	3.70%	3.30%	7.00%
ALERTS	3.50%	2.90%	1.50%
DIRECT COMMUNICATION	3.50%	1.20%	0.10%
TIPS	3.00%	4.60%	5.10%
DUI	1.70%	1.20%	1.50%
MISSING PERSONS	1.60%	3.40%	2.90%
DIRECTION TO SERVICES	1.30%	1.70%	1.00%
RECRUITMENT	0.60%	3.20%	2.70%
OTHER	4.10%	14.90%	6.40%
INSUFFICIENT INFO	0.70%	0.20%	0.00%
	104.10%	100.00%	99.90%

The primary shift was not from crime to a wide dispersion of categories, which might indicate mindfulness of the impact of crime reporting. In 2014, much of the shift went from crime to "other." Higher posting volume in total was hypothesized, which is demonstrable in Table 20. This hypothesis also predicted more variation by category. The "other" category increased to 14.9% of all posts, mostly at the expense of crime posts. The dispersion of the categories other than crime was 0.76% in 2010, but was 0.91% in 2014 and 1.2% in 2015.

Table 20. Top posting category by city and year

		2010	%	2014	%	2015	%
<b>Baltimore</b>	Crimes	82		PR	36	Crimes	41
<b>Birmingham</b>	PR	44		PR	59	PR	83
<b>Boston</b>	Crimes	75		PR	56	Crimes	45
<b>Chicago</b>	PR	46		PR, Crimes (tie)	43	Crimes	74
<b>Cincinnati</b>	Crimes	60		PR	43	PR	62
<b>Dallas</b>	PR	62		Crimes	31	PR	44
<b>El Paso</b>	PR	45		Crimes	33	Crimes	62
<b>Fresno</b>	PR, Tips	43		Crimes	64	Crimes	67
<b>Houston</b>	PR	57		PR	42	PR	56
<b>Louisville</b>	PR	56		PR	44	PR	53
<b>Minneapolis</b>	PR	41		PR	43	PR	64
<b>Oakland</b>	(Five categories)	22		PR	60	PR	55
<b>Oklahoma City</b>	Crimes	81		Crimes	44	Crimes	51
<b>Omaha</b>	PR	67		Other	39	PR	43
<b>Orlando</b>	PR	86		PR	58	PR	48
<b>Portland, OR</b>	Crimes	48		Crimes	51	Crimes	38
<b>Raleigh</b>	Crimes	79		Crimes	45	PR, Officer Injured (tie)	26
<b>Richmond</b>	Crimes	43		Crimes	21	PR	63
<b>Rochester</b>	Crimes	50		Officer Injured	54	PR	60
<b>Sacramento</b>	Crimes	46		PR	42	PR	44
<b>San Francisco</b>	Crimes	70		Crimes	44	PR	37
<b>Tulsa</b>	PR	40		Crimes	50	Crimes	44
<b>Virginia Beach</b>	PR	36		PR	31	PR	37

In 2014, police used social media to report less on crime but instead to send messages about many things: congratulating local sports teams, showing pictures of their city, and other things not necessarily related to police work or news. There were also more crime prevention and safety tips, more recruitment adverts, and more missing persons reports; however the remaining categories, after four years, remained fairly static. But in 2015, though the percentage of crime-related posts increased by 2% over 2014, the percentage of public relations posts increased more than 6%. The difference within the crime category was significant as well. The two departments with the most page likes, Baltimore and Boston, still had a plurality of posts about crime, but greatly reduced crime posts from 2010 to 2015. The ten departments that posted a majority of crime stories in 2010 averaged 63.4% of their total posts about crime; in 2015 the eight departments that posted mostly about crime averaged 52.8% of their total posts on crime issues. There has been a clear trend over the last five years for municipal police agencies to post less about crime and more public-relations related matters, as well to post in other categories at a higher rate than in the past about crime.

Table 21. Percent of total posts within the crime primary category, 2010-2015

<b><u>Sub-category</u></b>	<b><u>2010*</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>
Crime blotter	20.6%	12.0%	5.2%
Arrest/success	16.6%	7.5%	12.6%
BOLO/seeking info	7.4%	10.2%	12.0%
Case progressing	4.3%	1.3%	0.9%
Crime warning (general)	0.4%	0.1%	2.1%
Crime warning (internet)	0.1%	0.0%	0.0%

\*2010 numbers normalized to account for double coding

In 2010, the majority of crime posts were of the crime blotter variety, with news of successful apprehensions and results next. By 2015, use of departments' Facebook pages as a crime blotter had fallen to just more than 5%, reducing the ratio of generic blotter posts to success stories from 5 to 4 in 2010 to less than 2 to 1 in 2014 to about a 1 to 2.5 ratio in 2015. In 2014 and 2015, the use of Facebook to help locate missing persons was increased.

Another noticeable change in posting characteristics was the more than doubling of the "officer injured" category between 2014 and 2015 (see Table 22). Among the sub-categories, only one was germane to a current injury or death by an officer; the others pertained to memorializing slain officers from other cities or who had been killed in the line of duty in the past.

Table 22. Percent of posts within the Officer Injured category

<b>OFFICER INJURED (TOTAL POSTS)</b>	<b>2010 (51)</b>	<b>2014 (81)</b>	<b>2015 (200)</b>
memorial (specific officer)	29.4%	56.8%	31.5%
memorial (general)	29.4%	29.6%	23.5%
officer injured/ killed	27.5%	14.8%	39.5%
memorial (fund-raising)	13.7%	0.0%	5.5%

### **Post effect on readers and likes**

In 2010, though not the primary focus of the research, Lieberman, et al., recorded the number of likes and comments for each post. Also, they attempted to determine if the use of multimedia had an effect on the number of comments and posts. The decision was made not to measure multimedia effect on number of likes, because it is not the focus of this research (and unlike in 2010, the vast majority of posts in 2015 contained some type of embedded media). Likes counts were not collected in the 2014 coding research because as well it was not the focus

of the research at the time. However, as the coding for 2015 was being performed, clear trends had emerged about changes in the nature of posts between not only 2010 and 2015 but 2014 and 2015. Thus the decision was made to determine which categories were having resonance with readers compared to 2010.

Comments too were not measured because while likes are a measure of resonance a post had with followers and others visiting the site, often comment numbers are inflated because people respond to other comments rather than the main message in the post, and often comments that prompted more comments and replies was not at all germane to the original post. Likes are a more accurate measure of the impact that a post has. (Bear in mind that likes do not mean people "like" what is posted. Obviously a message about an officer killed or injured is not necessarily "liked," but is an indication that readers appreciate the post. "Like" is merely Facebook's nomenclature, which has since been changed again to include more choices.)

Table 23. Mean number of likes per post category, 2010 and 2015

<b>Category</b>	<b>2010</b>	<b>2015</b>
Alerts	6.1	87.8
Crimes	5.5	147
Direct communications	42.7	255.5
DUI	14	151.7
Missing persons	3.3	423
Officer injured	45.1	453.6
Other	16.1	512
Public relations	17.9	813.2
Recruitment	2	118.8
Tips	12.3	160.9

While it is clear that public relations posts generated the largest average number of likes in 2015, it should be noted that the one post garnered more than 300,000 likes, making at an

extreme outlier, outpacing the second-most liked post in all the cities by a factor of 10. However even eliminating that one post, the public relations posts had a mean number of likes of 528.6, significantly higher than any other category. (The mean likes of all posts drops to 384.2 when removing the one outlier post.)

This trend would indicate that big city police departments are using their Facebook page more for public relations, and that their followers and viewers are responding. Not only did public relations posts get liked more often than other categories, but within the crime category, the sub-category that touted the successes of police actions versus other information about criminal activity had a higher mean of likes than the mean of all crime posts. Within the public relations category, the community interest sub-category, when removing the outlier post that had more than 300,000 posts, had a mean of 607 likes compared to 528 for the category mean. Community interest stories were those designed to put the department in a positive light to the community, and included mostly posts about charity events and other community events that had police department participation. Many had little to do with what most consider to be traditional police work, posts about activities such as reading to children and sponsoring sports teams.

Table 24. Mean number of likes of selected sub-categories compared to the mean of all other posts.

	Mean number of likes	Mean number of likes, all other posts
Crime (all)	147	664.7
Crime (arrest/success)	233.7	532.1
Public relations (all)	822.1	292.5
Public relations (community interest)	607.7	461.9
Officer injured	1033.7	453.6
<b>Total mean of likes, all posts</b>	<b>494.7</b>	

The category that received the highest number of likes, however, was the officer injured category. The category included sub-categories devoted to memorializing officers killed in the line of duty, either recently, in the past, or on behalf of other police departments. These posts included a relatively small number of posts about recent officer injuries and were almost exclusively focused on officer deaths. These posts had a mean number of likes of 683.4, fewer than the memorial categories. In many cases, multiple posts were made about the same officer's death, often across departments. Again, likes do not indicate that a person likes the content of the post, but the degree to which the message had resonance with the reader.

## **Summary**

This analysis of police department Facebook pages indicates a clear evolution of the use of Facebook by police agencies. In 2010, posts ran a wider gamut of topics and an emphasis on crime issues, while the 2014 analysis indicates more of a focus on public relations. The 2015 analysis indicated a shift toward posts that are perhaps reacting to current events rather than having a proactive public relations focus. The public is reacting in turn to police posts that are current-events related and those that are more emotive, as evidenced by much higher "like" rates for those types of posts. Two cities with traumatic events, Boston and Baltimore, saw exponential increases in followers after the Boston Marathon bombing and Freddie Gray death and subsequent riots, respectively.

## **Chapter 6**

### **Discussion**

In the spirit of Pielke's "honest broker," (Pielke, Jr., 2007) this research was not an attempt to judge the efficacy of police policies on social media nor an attempt to enter the debate about which styles of police work are most effective or whether social media are augmenting or detracting from that, nor does it attempt to influence the policy choices of police agencies. It was to examine police departments' adoption of social media viewed from the perspective of diffusion of innovation theory as a theoretical framework, and to examine the degree to which, if at all, media and criminal justice theories that relate to police/media and police/community relations are more or less explanatory than diffusion of innovations theory.

#### **Limitations of the research, survey**

Since the survey was stratified by population groups, the mean population of the cities that returned the survey could differ from the mean of the cities in the population group. Also, the stratification caused sample sizes in two cases out of the five to be below the  $N$  of 50 that typically allows for statistical power, making the influence of mean difference between the sample group and the population group larger. While the sample group in the large city (100,000+ population) strata comprised more than 10% of the (department) population, the small-city sample size of 37 fell below  $N > 49$  out of a population of 6,991 city/town police departments, increasing the likelihood that the sample means might not reflect population means. In that group, the mean population of the cities and towns was 3,603, whereas the mean population of the cities and towns whose police departments took the survey was 4,137. This may indicate, with a small sample size, bias toward larger towns rather than a random sample representation of all of the small towns. Representations that are made in this study could be



misconstrued for results of the much more commonly used sample pulled randomly from the entire population rather than stratified data (which was either census polled or random within each stratum) that is more commonly used in social science research.

Since an opinion survey is a snapshot in time, and many of the questions asked the opinion of the chief about certain issues, local issues in the news or within the departments that chose to answer the survey could have influenced those opinions in a short-term manner that could cause the results of the survey to not accurately represent the opinions of the population group.

The survey was designed to be answered by chiefs and media professionals, with the knowledge that smaller departments may or may not have a media professional rather than simply have the chief act as the department spokesperson. While very large city departments have media contacts and the smallest departments had very few officers and thus no media professional, many mid-sized cities had designated media professionals that could be ascertained by the department's public website and many of them did not have an easily ascertained media relations professional who was not the chief. It is not known if the departments who returned the survey accurately reflect the ratio of departments that have media professionals versus those that do not, or even what the ratio is among the total population of police departments. It may also be true that media professionals' views might differ somewhat from the chief (though the assumption is that the media professional accurately reflects the media policies and opinions of the department). In some cases, police employed a media professional who was not a sworn officer. It is not known if this had any influence on the nature of the answers from the respondents.

As in any social science research, the creation of scales designed to measure a concept may underweight or overweight certain aspects of the scale because of the arbitrary nature of assigning numerical values to abstractions, and the actual representation may differ from that intended by the researcher.

In any diffusion of innovations research, if there is no physical evidence or an accurate written record reflecting the actual adoption dates of an innovation, a survey relies on the accurate recollection of the respondents of the actual start date of their social media usage. Their recollection may not accurately reflect true adoption times.

As is typical for anonymous survey research, there is no ability to contact respondents in order to clarify the intention of the respondent when an incongruous answer is given, such as "if you answered yes to the previous question..." where the respondent answered no but then answered the next question as well. There were a handful of cases like this in the survey. And as with any anonymous email survey, there is the possibility that the intended recipient's email security was compromised, and that an unauthorized person may have taken the survey.

### **Limitations of the research, Facebook content analysis**

This study sought to compare Facebook usage by police departments in 2014/15 compared to 2010. However, Facebook made major changes to the structure of each member's page, which may have impacted the nature of its usage, rendering comparison between 2010 and later years to be difficult. It is not possible to measure the effect that differences in the structure of Facebook may have had, given that in the case of police departments, Facebook was already a fairly new method of communication. Diffusion of innovations theory suggests adopters, especially later adopters, change the way they use an innovation. It is not possible to know how

much change can be attributed to police department intention and structure change effects between 2010 and the later years.

In the research, percentage comparisons are made to research that was performed where the percentages do not add up to 100%, and numbers were normalized for comparison purposes. This may have an effect on the results.

The research in 2010 was coded by a team of people whose coding choices were measured at 83% agreement. There is no way to measure coding agreement between the 2010 research as compared to the 2014 and 2015 research, and coding differences may have had some effect on the results.

By its nature, Facebook is never in stasis, so counts of likes/followers and likes for particular posts are snapshots in time, and to a small degree are contingent upon the day chosen to record the count. This could have a small effect on the results of like correlations to particular categories of posts.

The research in 2010 employed a web crawler a day after the end of the measured time period, whereas the research in 2014 and 2015 was conducted manually starting at the end of the measured time period, but requiring approximately two weeks in each case to complete the coding tasks, meaning that changes could have been made during the interim time. Post authors are allowed to edit posts after they have made them, or delete them completely, thus the one to two week time lag for the later-coded department could have yielded different results than a different selected order. The cities were coded in alphabetical order, so this difference would be more pronounced, if it exists at all, between 2010 and the other two years studies. The order was kept the same in 2010 and 2015 in order to minimize same-city difference between those two years. Facebook shows whether a post has been edited, and a count was not kept of posts that

were edited versus posts that were, and it is not known whether that would have made a difference in the results.

## **Findings discussion**

This research demonstrates that to hypothesize against what has been shown again and again through diffusion of innovations research is a tenuous exercise. Police department adoption of social media, far from being slow, has followed what diffusion of innovations theory would predict: that adoption of media very soon followed the greater public's adoption of social media and with similar demographic stratification and at a comparable rate, though with a steeper, though later, adoption curve. Among the general public, wealthier, higher educated, and urban/suburban households were quicker to adopt, and the same could be said about police departments: Larger, urban, and more resource-wealthy departments were quicker to adopt as were departments whose chief was higher educated. Police views about the traditional media, views about public comment and debate, views about the right to video and upload police/public interactions were not predictors of adoption of social media, and to the contrary, views indicating insecurity about police departments' own ability to control the narrative was negatively associated with shifting resources to social media from traditional.

And though this survey unsuccessfully posited that the IACPCSM was a channel for diffusion of social media, it is a channel for diffusion of information about the best use of social media, and many of the police departments surveyed use it as such, and more so by mid-sized cities. The IACPCSM has a wealth of information to help police departments craft a successful social media strategy. A department that avails itself of the resources of the IACPCSM can be said to be looking for coaching to influence its own narrative, and indicates a strong interest in social media.

Yet again, a study has found diffusion of innovation theory to be valid. But there is plenty of opinion out there that would have us believe that police departments are a different thing altogether, with a unique culture, unique mission, and as such we should expect different outcomes from them. A good deal of that rhetoric comes from police themselves. Put in that context, perhaps discovering that diffusion of innovations theory is applicable to them says something. The fact that social media are easy to set up, inexpensive to maintain, and have several disparate desirable uses for police work makes it a solid candidate for diffusion research. There is no need to control for federal government interference or largesse, such as with weaponry, or legislative or court mandate that force a policy change, which one could use as a proxy for innovation.

While there have been many studies about the public's perception of police, there are fewer studies that ask police leaders their opinion about issues. It is a tempting *a priori* assumption: It is generally assumed that police and the traditional media do not trust each other, so why ask? Opinions change over time, so sometimes the question bears asking again. Degrees of opinion change over time as well. Would a researcher have hypothesized the degree to which police leaders do not trust that traditional media accurately and fairly represent the nature of police work? One might expect the answers to skew to the negative, but would anybody expect that only two out of 239 police leaders would say that the media were fair and accurate? Not extremely fair and accurate, or very fair and accurate, but just fair and accurate. This is a mere 10 years after a study determined that police and the media believed they had a good relationship (Chermak & Weiss).

The numbers indicate that there should be perhaps more research about police use of social media at the expense of research about traditional police/media relations. There has been

for example a marked shift in how police are using their Facebook pages and the public's reaction to them. Sillince and Brown analyzed police websites in the UK in 2009 and argued that police enhance organizational legitimacy through the use of "multiple organizational identities" that alternately convey not only multiple identities but opposing identities within those categories (Sillince & Brown). Police departments alternately claim to be effective (thus deserving of support) and ineffective (thus the need for more resources), progressive (thus deserving of support because they are a "good" institution) and not progressive (because we reflect the prejudices of our community), and part of the community (thus we are one of you and have a stake) and not part of the community (we possess skills that make us uniquely qualified to fight crime and perform other police functions). The authors contend that each aspect of the multiple identity serves a legitimizing purpose. A demonstrated shift in the content of police websites and Facebook pages could thus have implications for public confidence in the legitimacy of the police, perhaps going in an unexpected direction.

Increasingly the focus of police Facebook pages has become public relations, and more police organizations are creating a professional public relations apparatus, as evidenced partially by the employment of the IACPCSM by smaller departments. Some research indicates that police public relations professionals have a focus on increasing public satisfaction with and trust in the police through the lens of the traditional media (Lee, 2010), but this research demonstrates that police professionals in the US do not trust that media. The professionalization of police web pages has implications for this legitimacy: Media professionals are not in the business of presenting mixed messages about their organizations. And though primarily this study was a quantitative exercise to measure Facebook use and its diffusion, and views and characteristics of the police leading that, the potential for making qualitative judgments inherent in reading more

than 5,000 Facebook posts in a short time portends perhaps more questions than have been answered in this research. Before getting into suggestions for further research, there are a number of qualitative observations to be made as a preface to those suggestions.

A plethora of research exists about the nature of police communication, and much of that focuses on police strategies to protect legitimacy and to "expand and defend their mandate" (Manning, 1992, p. 138). Among proactive strategies to further these goals is the use of ceremony and community policing (Chermak & Weiss). But between June of 2014 and June of 2015, the shooting death of Michael Brown in August, 2014, as well as several other highly publicized deaths of suspects followed by several execution-style killings of police officers seemed to change the tenor of many police posts from proactive to defensive.

The Baltimore police website experienced a ten-fold increase in the number of likes/followers between 2014 and 2015. The city experienced riots after the death of Freddy Gray in police custody in April of that year. But in 2014 their Facebook page was already in the throes of change. The department participated in the "Global Police Tweet-a-thon" with dozens of other law enforcement agencies. Posting frequency increased greatly starting very soon after that, with post characteristics more resembling tweets than typical Facebook posts. It appeared that a positive experience in that event caused somewhat of a change in its use of Facebook, or perhaps a more Twitter-centric approach, with Facebook acting as a repeater or archive. In that period, Baltimore had only six posts about officer injuries/deaths and memorials, and more public relations posts than crime posts (75-68).

In 2015, after the Freddy Gray death and the first riots, the department posted 21 times about officer deaths and memorials. Going against the overall trend, the majority of posts in 2015 were crime posts rather than public relations posts, but of crime posts (129-114). The

majority of crime posts were of the arrest/success category, with many of the posts showing pictures of guns and bags of drugs that were now "off the street." In 2014, more than half of crime posts had been of the crime blotter variety. Though there was a smaller percentage of public relations posts, a majority of those posts were community interest in focus, and averaged 725.3 likes as compared to an average of 434.4 likes for all posts in that time period. In contrast, in 2014, from August 20 to September 20, 29 posts' leads contained the word "shooting."

It appeared that in 2014, the Baltimore Police Department was taking steps to change the nature of its posting based on a positive Twitter experience, but the events of earlier in 2015 prompted a change in posting strategy to those displaying success to the community, and those displaying to the community that it is a part of it.

Minneapolis police in 2015 made a noticeable change to its Facebook strategy. The department announced on its Facebook page on July 17 that it had created a social media team. After that date, the focus of posts changed; before the creation of the team, there were 16 post about crime in 28 days. After the formation of the team, there were 14 posts about crime in the ensuing 64 days. The shift was toward public relations posts, emphasizing community interest posts, many of which discussed the department's community policing philosophy and practice.

This dichotomy of reactive and proactive posting trends could be seen in other cities as well. Whereas public relations professionals to some degree rely on ambiguity in order to avoid alienating stakeholders and keeping option open (Jarzabkowski, Sillince, & Shaw, 2010), a textual analysis of the posts in 2015 would show that in many cases, ambiguity was replaced by bluntness and polemics in the wake of police violence and violence on police (and violence in response to both). In 2014, out of more than 2,400 posts among the 23 cities, there was only one mention of the Michael Brown shooting, from the chief of the Tulsa Police:



There has been recent media interest regarding TPD officers expressing support of Officer Wilson in Ferguson, MO.

I think it is important to point out a few facts. First, our officers have proven their dedication and service to ALL of our community and will continue to do so with respect and compassion. I expect no less of them. Second, their support is not about race, guilt or innocence it is about the rule of law.

The situation in Ferguson has produced an intense atmosphere in which relevant facts are being overlooked and facts not in evidence are being broadcast as the truth. Very public figures are making statements vilifying the police across the nation and insinuating Officer Wilson's guilt before the investigation is over, thereby tainting potential jury pools in the event a trial is warranted.

The rule of law has served our nation well for over two centuries. Are we really ready to abandon that concept now? I don't know if Officer Wilson is guilty or innocent of the charges being leveled at him. And neither does anyone else at this point.

In this spirit, I sincerely appreciate the objective and discerning thoughtfulness our community has demonstrated to the rule of law and The Tulsa Police Department.

It should be noted in past instances where TPD officers have been arrested, officers made no such collection efforts. Why? Because they saw due process was in place and the rule of law would prevail.

While collection boxes in City facilities may not be appropriate, the desire to seek justice in a just manner certainly is.

Chief Chuck Jordan

Whether this type of rhetoric serves the long-term interests of police departments, public confidence and belief in police legitimacy is not known. It could serve the legitimizing purpose of multiple identities theorized by Chermak and Weiss. What is known is that defensive rhetoric about violence involving police and the public's reaction to it has increased as the numbers of highly covered news stories about the subject has. The Omaha police department on September 13, 2015, displayed a picture of a t-shirt (see Figure 14) being sold by Amazon and encouraged supporters to call to get the t-shirt removed from the site.

We apologize for the graphic but this is what Amazon.com is currently selling along with other similar t-

shirt. What do you think? We have called Amazon and told them we find it offensive. This is beyond ridiculous! Amazon phone number. (888) 280-4331 Enough is enough!



Figure 14. Omaha PD Facebook post, September 13, 2015.

Though Amazon has removed the shirt from its site (the selling entity was a third-party vendor), the Omaha Police have not removed the post or the image from the site. The post has more than 1,300 likes and nearly 1,000 comments. On August 28, Omaha PD posted a picture with a link to the Support Blue organization (see Figure 15).



Figure 15. Omaha PD Facebook post, August 28, 2015.

As this research demonstrated, posts about officers being killed or memorialized had the highest number of likes, and often prompted scores of sympathetic comments. Some comments became political, as well, such as this one from August 29, 2015, on the Oklahoma City website in response to a post about Harris County Sheriff Deputy Darren Goforth's killing: "So fed up with this! My life matters, my family matters, my wife matters, my brothers and sisters matter! A coward acted last night and took away a life, a man, a father, a husband!!!! All LEO deaths should be federal hate crimes and automatic death penalty!"

Another trend that was seen was the use of hero rhetoric to describe the work and accomplishments of police. On two occasions, the Oklahoma City Police posted instances where a citizen had written to the department and used the word "superhero" to describe them. (Both were cases where a policeman had a positive interaction with the writer's children.) The use of the term "hero" was common, and seems in contrast to Omaha's post about an organization's tribute book to fallen police that aims to humanize them, although this may again be effective if

multiple identities is a legitimizing force. Orlando's chief intermixed unambiguous rhetoric with opinion about police violence with an appeal to reserve judgment about officers who use force in an op-ed published in the *Orlando Sentinel* that was reposted several times on its Facebook page, starting with "Our police officers are the thin blue line between good and evil"

While there was a demonstrated increase in public relations, it seemed that the nature of those public relations messages changed. While in 2014 there were a number of post about police sponsored athletics and other typical community involvement, an increase in 2015 of similar posts was augmented by many posts showing police helping and interacting with vulnerable populations, and those posts having resonance with the followers. On July 12, 2015, Oklahoma City posted a story about its officers delivering a birthday cake to a 75-year old woman whose wheelchair broke on the way to buy a birthday cake for herself. The post has nearly 28,000 likes. Another depicted an officer changing an elderly woman's tire: more than 7,800 likes. Yet another depicted officers interacting with children at a local Chik-Fil-A restaurant, and has nearly 33,000 likes. (Oklahoma City was the department with the post that went viral and has more than 300,000 likes: a post about an officer saving a drowning girl.)

If multiple identity theory is not correct, will police social media rhetoric have the collective effect that traditional media had that was described by Lovell in *Good Cop, Bad Cop*? Police social media removes the middleman, the perceived unfair media, however the comments sections provide a foil – apparently unreasonable detractors – but also allows for there to be disagreement with police policy that may sound rational. The degree of censorship and moderation in the comments sections is difficult to determine. The Boston Police Facebook page says "Note: Comments posted to this Web site will be monitored and we reserve the right to edit for obscenities." But posts were not discarded necessarily for negative content: Many comments

in posts, and also many comments in the "reviews" section (which was not covered here quantitatively or qualitatively up to this point) were critical of Commissioner William Evans' statement that rifles were not needed to be owned in the city, and have been left on the site. In seeming contrast, Evans has been public in his support of legislation in Massachusetts that would regulate the use of cell phones to record police-citizen interactions (Quinn, 2015).

Similarly, Houston's policy is "We welcome your input and positive comments regarding HPD." Oakland says specifically that the purpose of its Facebook page is to "share positive news" about the department, though not all comments were positive. A post about confiscations of illegal fireworks on July 4th weekend drew this response: "Wow. So much for freedom huh? What are we really celebrating on July 4th; a police state?"

Baltimore for example kept posted many extremely negative comments on its Facebook page for weeks, such as this comment from 2014, before that city's difficulties: "Police Departments hire violent psychos, give them permission to do anything they want, then feign surprise at the result." It was not difficult to find many posts critical of police in the comments sections of most departments, ranging from rational discourse to what can only be described as disdain. It may be that leaving critical posts contributes to the authenticity of the police social media sites, as multiple organization identity theory posits.

### **Potential for further study**

This study focused on quantitative changes in the nature of police use of Facebook and the rate and characteristics of adoption through the prism of diffusion of innovations theory, but did not focus on qualitative changes, except for this brief discussion of anecdotal observations from six months' worth of posts on 23 police Facebook pages. An analysis about changes in posting rhetoric based on theories of effective public relations, the "corporate" message of the

police agency, multiple organizational identity theory, or reaction to current events could be performed both quantitatively as well as qualitatively. How many times in a given period did police use the word "hero?" How many negative comments are allowed to stay on police websites? What are the characteristics of their content?

There is a shift toward a public relations focus for police social media use. Will this be adopted by smaller departments, and if so when?

This study did not attempt to contact county sheriffs or county organizations because of their inherent differences with incorporated municipalities. Research into whether there are differences in the views about, adoption of, and use of social media by county agencies, state police departments, school police, other jurisdictions, and federal police as compared to each other and/or municipal police should be studied.

Since there was an attempt to measure change from 2010, this research used the seminal Lieberman, et al., study that took an educated guess at what kinds of posts would likely appear on police websites. That there was an entire category for "direct communication" – where a department Facebook page would be used to send a message to a particular person – seems antiquated today. Members of the general public do not primarily, if at all, use Facebook posts to talk directly to each other any longer. However the research demonstrated a narrowing in the scope of police department posts. The categories could be recalibrated, and smaller departments could be included to determine if they are following the trends set by the larger departments in this area as well.

This research focused mostly on Facebook, which is the most dominant social media today. That could change. Though it asked police leaders about their general use of other social media, there was no attempt to quantify or differentiate the different social media that are

popular today and which of them police used most frequently. Research could be performed to determine how Twitter is used, and how that is differentiated from Facebook. Research could be performed to determine police view about whether Twitter is more effective than Facebook in certain aspects, since Twitter would seem to be more akin to a headline or alert service than Facebook. (While Facebook was not widely used as an alert service, a small percentage of messages were used as alerts; that number did not diminish over the five year period studied, while certain other categories such as direct communication evaporated over time.) Some departments referred to Nixle sites, Instagram, Pinterest, and now Periscope, the site where anybody can record themselves live, and anybody can watch. Whether, when and how these newer sites are or could be used by police might be promising research.

For social media in general and the various particular social media innovations noted above, and for other policy and/or technology innovations as it regards police communication, the five major components of diffusion of innovation theory that contribute to adoption rates, relative advantage, compatibility, complexity, trialability, and observability could be incorporated into perhaps a more specific study. This study was a more a starting point, generalist attempt to explain the larger phenomenon of police use of social media given that there has been little academic research on the subject to this point.

The validity of diffusion research is predicated on a number of things, beginning with the effectiveness or usefulness of the innovation. Police have been criticized for being quick to adopt weaponry, vehicles and technology that constitute "militarization." But like any local government agency, police will accept earmarked federal dollars. It may be that these cannot be explained by diffusion of innovations theory because it is not clear that departments find these implements to be beneficial, but are loath to say no to the subsidies. This anonymous survey

revealed interesting views about traditional media that were not surprising in their direction, but their intensity. Perhaps police leaders do not view more weapons as beneficial or they are viewed as less so than many think. An anonymous survey, with diffusion of innovations expectations as the null hypothesis rather than the alternative, may be illustrative.

Alternatively, some political science research about government uses policy as a proxy for innovation, with police being slow to adopt these "innovations." While this researcher does not necessarily view policies as innovations, perhaps the same type of anonymous surveys could be employed to determine whether police view particular policies positively, in order to determine whether a policy is actually considered to be an innovation before its rate of adoption is criticized, or measured at all in the diffusion of innovations context.

The Facebook content analysis aspect of the research focused on the very early adopters, the only large departments that had Facebook pages. Similar latent analysis research could be performed on smaller departments to determine if the volume and nature of their posts differs from that of the larger departments and what the implications of that could be. However, given the results of the research here, the categories need to be culled and rationalized to more reflect the current reality of police usage. The research could be quantitative (such as this research) and/or quantitative, to determine if smaller departments are taking cues from larger departments in their posting rates, posting content and use of rhetoric.

Perhaps the richest potential for research would be a textual analysis of not only the posts but also the comments section of police Facebook pages. A thorough analysis of these posts could give information as to the characteristics of the followers of the department websites, and perhaps measure the degree to which followers of the page are supporters of the departments. An early hypothesis from this researcher's read of hundreds of these comments is that the



department's Facebook followers have many of the attributes of political partisans or sports team fans, where disagreement about issues is underpinned by an agreement about the mission of the organization, with the occasional allowance of an alternative view which gives the supporters an opportunity to close ranks and overwhelm the opinion of the outsider.

If this hypothesis was supported, what are the implications for police legitimacy? Would this contribute to legitimacy following multiple organization identity theory, or would a schism be created among those who feel neither strongly pro or anti police? Would it prompt neutrals to take sides? Would police social media sites complete a transition from vessels for disparate information to public relations-laden virtual gathering places for supporters?

Finally, this study asked the police leaders one question about body-worn camera use: do they. Nearly half of the departments surveyed deploy body-worn cameras. Given that adoption of social media appears to be nearing natural saturation for its use by police and that a great majority of Americans live where police departments use social media, it is natural to be looking for the next innovation. This study was late in the game as evidenced by the ability to measure the traits of late adopters. The next wave of innovation related to social media that could change the balance of control of the narrative (if there is such a thing) is the body-worn camera (helmet cameras, lapel cameras, badge cameras). The body-worn camera would seem to have the potential to tilt the social media narrative in favor of police in many cases, assuming social media has diminished that, and many believe that they will be a check on rogue officers (Feeney, 2015). If Officer Darren Wilson were wearing such a camera on the August, 2014, evening that he approached Michael Brown and Dorian Johnson as they walked down a Ferguson, Missouri, street, the events that occurred in the ensuing months would almost certainly have been

significantly different. But the use of badge cameras as a defensive hedge is far from clear (see Table 25), though it appears something is going on.

Table 25. Body-worn camera correlates policy changes and scale

	<b>Body-Worn Camera Use</b>	
	<b>R</b>	<b>Sig.</b>
<b>Narrative Quotient</b>	0.059	0.183
<b>Changed a non-media policy due to social media</b>	-0.046	0.242
<b>Changed a media policy due to social media</b>	0.089	0.087

But rather than a new innovation or a defensive strategy, the case could be made that body-worn cameras are a reinvention of social media. Only in the social media era have they been considered as perhaps necessary by departments. Cameras have been used for surveillance and as evidence in court for decades, and their cost as a function of resources available to police departments for technology has been in decline since the early 2000s, but body-worn cameras have not been widely adopted as of 2015. This implies that they are a social media tool given that their primary function would be to counter or augment the narrative of citizen witnesses who upload police interactions with the public to social media. Diffusion of innovations theory would predict that later adopters are more likely to reinvent, implying that later adopters of social media would be more likely to be using badge cams than early adopters, perhaps as a response to the use of social media by others. A more in-depth study of badge cam adoption could be attempted using the five specific tenets of diffusion of innovations theory mentioned above, perhaps with an eye toward police resource allocation, organizational theory, et cetera. A very preliminary look using data generated in this study demonstrates that body-worn camera adoption is tougher

to explain (see Table 26). The best predictor of adoption of the next innovation (or defensive hedge? unwanted implement?), body-worn cameras, is the degree to which social media had not been embraced.

Table 26. Correlates for body-worn camera use

<b>Body-worn camera use tested for:</b>	<b>R</b>	<b>Sig.</b>
Allows unmoderated comments	-0.54	0.405
Mistrusts media	0.019	0.767
City size	0.048	0.457
Age of chief	-0.8	0.217
Education level of chief	0.038	0.566
Social media presence	0.056	0.391
Media bias	0.019	0.767
Shifted resources to social media	-0.177	<b>0.006</b>

## Implications for Policy

This study was not designed to provide policy suggestions to police departments. However, implications for policy cannot be ignored. Diffusion of innovations research asks whether and at what rate adoption is taking place, why it is taking place and for what it's used. The assumption is that the innovation is beneficial, as limes were undeniably beneficial in the prevention of scurvy. With an innovation such as social media, it is not so clear that it would benefit the police departments of smaller towns, so it is not clear that the proper question is "have they"; perhaps the proper question is "should they"? As noted by Pew Research, today just over half of rural dwellers use social media. Rural dwellers tend to be older and less mobile as well (The National Academies Press, 2005), implying that most of the population has lived in the

town for much of their life, increasing the chance that each person has had a personal interaction with a police officer, or even the chief. The 6,991 cities and towns that comprised the under-10,000 population group of departments studied have a total population of just over 24,000,000, with about half of the adults using social media. That would mean that almost 7,000 departments would have to create 7,000 social media sites in the hopes of reaching 10,000,000 people. One can see how that is not an efficient use of resources. But there are social media uses other than merely reaching people, and social media will always be cost effective given that it piggy-backs on technology nearly every department already has: an internet connection.

For that large majority of departments that are shifting resources to social media (which serve a large majority of the US population), a primary question is the degree that departments want their social media to be professionally managed. If sites are viewed by the public as not attempting to be somewhat balanced, but are becoming as much public relations arms and supporter societies as information providers, there is the inherent possibility of social media sites springing up to present the opposite message, with implications for police maintenance of legitimacy. "Cop watch" sites are already out there, some sponsored by well-funded organizations such as the Cato Institute's National Police Misconduct Reporting Project. If social media sites are going to compete in the market of ideas unfettered by editors from traditional media, police agencies' adoption and use of body-worn cameras might have to be looked at not simply as evidence providers to be used in criminal cases for prosecution, or as competing evidence versus a video that presents a more unfavorable perspective of an incident, but also as proactive public relations tools. This has real implications for privacy, since in many cases members of the public will upload police interactions with citizens who may not want to be on

video. Police departments' proactive use of video pre-arrest and prosecution will have legal and social implications concerning the nature and control over public space and personal privacy.

Further implications for policy involve the choices that are made about what to post, and whether those posts could hamper a prosecution, or negatively affect the life of a suspect who turns out to be innocent. Though there is a shift toward more public relations posts, a large number of posts are still about crime and many of those are picture of suspects and appeals for information. Police leaders have indicated that social media are effective for investigation and surveillance. However it calls into question what the limits (if any) and policies should be about posting someone's picture on a Facebook page and announcing that person as a suspect. An August 26 Facebook post by the Oklahoma City Police asked for help identifying a man:

OKCPD needs your help identifying a man who went into the Tinseltown movie theater in NE OKC, entered the ladies bathroom and peeked underneath a stall at a woman who was using the toilet. Surveillance cameras captured images of the suspect. Anyone with info as to his identity should call Crime Stoppers at 405/235-7300. Callers can remain anonymous and may earn a cash reward.

Below are two pictures of a man at a cash register, presumably at the theater though the post does not specify. Unlike many security camera photos used by police to help identify criminals that show someone in the commission of a crime, the man's picture is on the police Facebook page based on what appears to be a report by one witness. Commenters have opinions regardless of his actual guilt, innocence, or mistaken identity "I'd have opened the door and kicked him in the face. What a loser Get that sick pervert off the streets. Eww wtf! Sicko Gather before picture. His face is not kicked in! He is a p.o.s" And as well, commenters provided anecdotal evidence of reports of possible crime begetting fear of crime: "Great...something else we have to be concerned about nowadays. beware next time you're there for a movie..."

He could be the right suspect and his capture could take a sex offender off the street. However the post had not followed up two months later on whether he had been caught or if the photo was even of the correct person, or if the incident really happened at all. But his picture is still on Oklahoma City's Facebook page for its 86,000 followers, and anyone else who happens upon it, to see.

In conclusion, police adoption of social media has not been slow, or precipitated or inhibited by attributes unique to police departments. As Rogers pointed out, one of the primary aspects of an innovation that would merit adoption is that it must have at least some perceived benefit to the adopter (p. 12). This survey has demonstrated that police have adopted the innovation that is social media in keeping with diffusion of innovations theory: Adoption rate and early adoption were correlated with size of department and to a much lesser degree (if at all), age and education of the chief of the department. Police adopted social media more in line with Rogers' S-curve, which hit a critical mass – the left side steepening of the S-curve – in around 2011, whereas the general public adopted at a more linear rate starting in 2005.

Police have utilized social media in a way that few might have predicted in the late 2000s, including for investigation and surveillance. Smaller departments utilize social media for these purposes as well, the smallest of them at a greater rate than they use public-facing social media for communications and public relations purposes. The public, on the other hand, has used social media as a perceived check on police abuses and the alleged actions of rogue officers via the uploading of video to sites such as YouTube. Social media has been transformed from a way that friends to communicate with each other to a method for the police and the public to debate public policy without the middle-man influence of the traditional media. Or more accurately, each are using social media as a check on the other.

Police have embraced the disparate uses of social media and have transitioned resources toward social media and away from resources devoted to dealing with the traditional media, despite the profound distrust thereof, and though the survey showed some evidence that some police leaders would prefer that the public not sound off on police websites, there is ample evidence that many of them do allow critics to weigh in. And though it is impossible to determine the degree to which the departments censor what gets said in comments sections of their websites, it is clear that the level of censorship does not rise to the level of sanitation. There were plenty of harsh criticisms of the police to be found, though the lack of certain curse words would indicate that some filtering is going on.

Large departments had already adopted social media before the advent of the IACPCSM. A fairly small percentage of departments utilized its resources in the forming of their nascent social media programs, indicating possibly that the IACPCSM, rather than a facilitator of adoption may instead be facilitator of transition of usage (or a repository for best practices). And despite indications from departments surveyed that social media has caused issues that have posed external challenges to departments, a general lack of trust toward the traditional media would imply that social media has great potential for police agencies to take more control of the public relations narrative and further remove any middle man from the message about their mission directly to the people. This however creates challenges, and this research quantified what a sub-section of departments are doing in response to this challenge. The information from the IACPCSM is filtering down to the smaller departments, though, because the large departments do utilize that information, and the smaller departments take their cues from the larger departments, just as diffusion of innovations theory tells us they would.

Department posting rates increased about 70% in the four years between 2010 and 2014, and though crime posts and public relations posts dominated both years, the number of crime posts fell in that time while dispersion among the categories (and into the "other" category) increased. The ensuing year saw an increase of about 400 posts among the 23 departments, and a clear move to a sharper focus on public-relations related posts, as well as posts in other categories that were sympathetic or empathetic to police. Those posts had resonance among the social media followers of the departments. And while police departments are taking firmer control of their message via social media, it is left to further research to determine if this is having the effect on the public that police would like it to. Is police use of social media increasing public confidence in and support of the police? Does it have a balancing effect on the traditional media's (perceived) biased portrayal of police work? That is unclear at this point. The often hyperbolic self-lionizing that can be seen in some departments' Facebook sites may have the opposite effect on detractors or even some people without strong opinions one way or the other, and may even be seen as cloying by supporters (and/or that may galvanize supporters to a degree that outweighs the negatives).

There is evidence that the events that have occurred since the killing of Michael Brown by Officer Darren Wilson has hastened the transition of police Facebook sites from a smattering of information to focused public relations venues and places for supporters – and a few critics – of police and police work to gather. A place to gather: another unanticipated repurposed use of this innovation. Social media has been criticized as being a force for alienation (Rey, 2012) and anti-social behavior (Reilly, 2012). There are 300,000 people in Baltimore and Boston who might disagree with that assumption.



What is incontrovertible though is the fact that the current climate, replete with protests, riots, the Black Lives Matter movement, police shootings of apparently unarmed suspects, the execution-style killings of police officers, unbridled public frustration emanating from police leaders, and the outrage on all sides, has occurred five years into the police-use-of-social-media era. Like all innovations, the use of social media by police and their supporters and detractors alike will continue to evolve, and researchers and policy-makers who predict outcomes without significantly more study of police use of social media do so at their own peril.

## Appendix A

### Survey Format as Seen by Respondents

Dear Police Leader,

The University of Nevada Las Vegas Criminal Justice Department invites you to comment on your department's adoption and deployment of social media such as Facebook.

You were selected because you are either the leader of a department, a representative of the department leader, or the primary media contact for the department who would have knowledge of the department's social media policies. If this email has reached you incorrectly, please forward it to the head of your department or the person in charge of media in your department.

We know your time is very valuable. This survey should take no more than 10 to 15 minutes; all questions are multiple choice. We ask you to take the time because we believe that it is critical that police use of social media is better understood. There is no compensation or other consideration for taking the survey, but we believe that the perspective of police leaders should be accounted for more fully by criminal justice scholars.

The survey is anonymous. Your responses will not be tracked with any personal information and your answers cannot be traced to you by us. This survey has been vetted by the UNLV Institutional Review Board.

If you have questions, please contact Paul Geary at [gearyp2@unlv.nevada.edu](mailto:gearyp2@unlv.nevada.edu) or by phone at 702-403-0264, or Dr. William Sousa at [william.sousa@unlv.edu](mailto:william.sousa@unlv.edu) or by phone at 702-895-0247. Thank you.

**Follow this link to the Survey:**

Take the Survey

Or copy and paste the URL below into your internet browser:

[removed]

Follow the link to opt out of future emails:

Click here to unsubscribe

Q1. Does your department have a public Facebook page?

- ☐ Yes
- ☐ No

Q2. If so, when did your department create its Facebook page?

- ☐ 2011 or earlier
- ☐ 2012
- ☐ 2013
- ☐ 2014
- ☐ 2015

Q3. Does your department use any public social media outlets other than Facebook? (Instagram, Twitter, YouTube, etc.)

- ☐ Yes
- ☐ No

Q4. If yes to question 3, when did your department begin using its first social media outlet other than Facebook?

- ☐ 2011 or before
- ☐ 2012
- ☐ 2013
- ☐ 2014
- ☐ 2015

**Q5.** Is your department aware of the International Association of Chiefs of Police Center for Social Media?

- ☐ Yes
- ☐ No

**Q6.** If so, did your department utilize information provided by the International Association of Chiefs of Police Center for Social Media in the initial creation of your social media sites?

- ☐ Yes
- ☐ No

**Q7.** Do you use information provided the International Association of Chiefs of Police Center for Social Media in the regular course of business and/or the development your social media strategy?

- ☐ Very often
- ☐ Regularly
- ☐ Sometimes
- ☐ Yes but seldom
- ☐ Never

**Q8.** What is the age of the chief/sheriff/department head?

20   26   32   38   44   50   56   62   68   74   80

Age

**Q9.**

What is the highest level of education of the chief/sheriff/department head?

- ☐ High School Diploma/GED

- ☐ Associate's Degree
- ☐ Bachelor's Degree
- ☐ Master's Degree (MA, MBA, etc.)
- ☐ Doctorate (Ph.D, JD, Ed.D, etc.)

**Q10.**

Do you use Facebook to perform investigative tasks?

- ☐ Yes
- ☐ No

**Q11.**

Do you use any other social media outlets than Facebook to perform investigative tasks?

- ☐ Yes
- ☐ No

**Q12.**

Do you believe that Facebook is an effective investigative tool?

- ☐ Definitely yes
- ☐ Probably yes
- ☐ Maybe
- ☐ Probably not
- ☐ Definitely not

**Q13.** Do you believe that any other social media than Facebook are effective investigative tools?

- ☐ Definitely yes
- ☐ Probably yes

- ☐ Maybe
- ☐ Probably not
- ☐ Definitely not

**Q14.** Do you use Facebook to perform surveillance tasks?

- ☐ Yes
- ☐ No

**Q15.** Do you use any other social media outlets than Facebook to perform surveillance tasks?

- ☐ Yes
- ☐ No

**Q16.** Do you believe that Facebook is an effective surveillance tool?

- ☐ Definitely yes
- ☐ Probably yes
- ☐ Maybe
- ☐ Probably not
- ☐ Definitely not

**Q17.** Do you believe that any other social media than Facebook are effective surveillance tools?

- ☐ Definitely yes
- ☐ Probably yes
- ☐ Maybe
- ☐ Probably not
- ☐ Definitely not

**Q18.** Do you believe that the traditional media fairly and accurately portray the reality of police work, issues that police face, and police-related newsworthy incidents to the public?

- ☐ Fairly and/or accurately
- ☐ Somewhat fairly and/or accurately
- ☐ Neutral
- ☐ Somewhat biased and/or inaccurately
- ☐ Biased and/or inaccurately

**Q19.** In the last five years, to what degree have you shifted resources toward social media management from traditional media management?

- ☐ About all
- ☐ Mostly
- ☐ About half
- ☐ Some but not much
- ☐ Not at all

**Q20.** Do you view the administration of your department's social media outlets to be helpful or a hindrance to the department's ability to do its job overall?

- ☐ Very helpful
- ☐ Somewhat helpful
- ☐ Neutral
- ☐ Somewhat of a hindrance
- ☐ Very much a hindrance

**Q21.** To what degree do you believe that social media crime tip reporting is helpful?

- ☐ Critically helpful

- ☐ Very helpful
- ☐ Somewhat helpful
- ☐ A little bit helpful
- ☐ Not at all helpful

**Q22.** Has your department experienced instances where external social media not managed by your department (for instance, Facebook or Twitter posts from the general public about an incident involving your department) made a case, controversy or incident more difficult to deal with?

- ☐ Yes
- ☐ No

**Q23.** If you answered yes to number 22, what was the degree of difficulty that it caused the department?

- ☐ Caused a crisis
- ☐ Caused a very challenging situation
- ☐ Caused a somewhat challenging situation
- ☐ Was nothing more than what the department normally deals with

**Q24.** Have you changed or created any department non-media related policies because of social media's influence?

- ☐ Yes
- ☐ No

**Q25.** Have you changed or created any media related policies because of social media's influence?

- ☐ Yes
- ☐ No



**Q26.** Disregarding court rulings and opinions on such cases, do you believe the general public should have the right to video any interactions in a public place between your officers and the general public, and upload them to YouTube, Facebook, or other popular social media sites?

☐ Yes

☐ No

**Q27.**

Does your department deploy body-worn (badge or helmet or other) cameras?

☐ Yes

☐ No

**Q28.** Disregarding court rulings and opinions on such cases, do you believe that the video recording and uploading to social media sites by members of the public of interactions between your officers and the general public in public places is a hindrance or help to police work?

☐ Very helpful

☐ Somewhat helpful

☐ Neutral

☐ Somewhat of a hindrance

☐ Very much a hindrance

**Q29.** Do you allow comments to your website or any of your officially department-sanctioned social media sites?

☐ Yes

☐ No

**Q30.** If you answered yes to question 29, do you allow unmoderated comments, or plan to or anticipate that in the future that you will allow unmoderated comments to any of your officially department-sanctioned social media sites or your website?

- ☐ Allows unmoderated comments now
- ☐ May in the future
- ☐ Likely will not
- ☐ Definitely will not

## **Appendix B**

### **Survey Questions by Dimension**

#### Questions for use in the "when" dimension of the survey

1. Does your department have a public Facebook page?
2. If so, when did your department create its Facebook page?
3. Does your department use public social media outlets other than Facebook such as Twitter, Instagram, YouTube, etc.?
4. If so, when did your department begin using its first social media outlet other than Facebook?
5. Is your department aware of the International Association of Chiefs of Police Center for Social Media?
6. If so, did your department utilize the information contained in the International Association of Chiefs of Police Center for Social Media in the initial creation of your social media sites?
7. Do you use the information contained in the International Association of Chiefs of Police Center for Social Media in the regular course of business and/or the regular course of developing your social media strategy?
8. What is the age of the chief/sheriff/department head?
9. What is the highest level of education of the chief/sheriff/department head?

#### Questions for use in the "why" dimension of the survey

18. Do you believe that the traditional media fairly and accurately portrays the reality of police work, issues that police face, and police-related newsworthy incidents to the public?
19. In the last five years, to what degree have you shifted resources toward social media management from traditional media management?
20. Do you view the administration of the department's social media outlets to be helpful or a hindrance to the department's ability to do its job overall?
21. To what degree do you believe that social media crime tip reporting is helpful?
22. Has your department experienced instances where external social media not managed by your department (for instance, Facebook or Twitter posts about your an incident involving your department) made a case, controversy or incident more difficult to deal with?
23. If you answered yes to number 22, what was the degree of difficulty that it caused the department?
24. Have you changed or created any department non-media related policies because of social media's influence?
25. Have you changed or created any media related policies because of social media's influence?
26. Disregarding court rulings and opinions on such cases, do you believe the general public should have the right to video any interactions between your officers and the general public, and upload them to YouTube, Facebook, or other popular social media sites?

28. Disregarding court rulings and opinions on such cases, do you believe that video recording and uploading interactions between your officers and the general public is a hindrance or help to police work?
29. Do you allow unmoderated comments to your website or any of your officially sanctioned social media sites?
30. If you answered yes to question 29, do you allow unmoderated comments, or plan to or anticipate that in the future that you will allow unmoderated comments to any of your officially department-sanctioned social media sites or your website?

Questions for use in the "what" dimension of the survey

10. Do you use Facebook to perform investigative tasks?
11. Do you use any other social media than Facebook to perform investigative tasks?
12. Do you believe that Facebook is an effective investigative tool?
13. Do you believe that other social media than Facebook are effective investigative tools?
14. Do you use Facebook to perform surveillance tasks?
15. Do you use any other social media outlets than Facebook to perform surveillance tasks?
16. Do you believe that Facebook is an effective surveillance tool?
17. Do you believe that any other social media than Facebook are effective surveillance tools?
27. Does your department deploy body-worn (badge or helmet or other) cameras?

## Appendix C

### Narrative Control Quotient Scale Factors

**Do you believe that the traditional media fairly and accurately portrays the reality of police work, issues that police face, and police-related newsworthy incidents to the public?**

Fairly/accurately	0
Somewhat fair/acc	1
Neutral	2
Somewhat biased/inacc	3
Biased/inaccurately	4

**Has your department experienced instances where external social media not managed by your department (for instance, Facebook or Twitter posts about your an incident involving your department) made a case, controversy or incident more difficult to deal with?**

No	0
Yes	(go to next question)

**If you answered yes to number 22, what was the degree of difficulty that it caused the department?**

Caused a crisis	4
Very challenging	3
Somewhat challenging	2
Normally deal with	1

**Disregarding court rulings and opinions on such cases, do you believe the general public should have the right to video any interactions between your officers and the general public, and upload them to YouTube, Facebook, or other popular social media sites?**

Yes	0
No	1

**Disregarding court rulings and opinions on such cases, do you believe that video recording and uploading interactions between your officers and the general public is a hindrance or help to police work?**

Very helpful	0
Somewhat helpful	1
Neutral	2
Somewhat hindrance	3
Very much a hindrance	4

**Do you allow comments to your website or any of your officially sanctioned social media sites?**

No	4
Yes	(go to next question)

**If you answered yes to question 29, do you allow unmoderated comments, or plan to or anticipate that in the future that you will allow unmoderated comments to any of your officially department-sanctioned social media sites or your website?**

Allows	0
May in future	1
Likely will not	2
Definitely will not	3

## Appendix D

### Methodology Chart of Research Questions and General Hypotheses

		Research question/general hypothesis	Method	Notes
When	RQ	<b>Police were not slow to adopt social media</b>		
	Hyp	Larger departments adopted earlier	Survey	Q1, Q2
	Hyp	More education of chief, earlier adoption	Survey	Q1, Q2, Q9
	Hyp	Younger chief, earlier adoption	Survey	Q1, Q2, Q8
	RQ	<b>Police adopted via channel derivation; IACPCSM</b>		
	Hyp	Earlier adopters more likely to have employed IACPCSM	Survey	Q1, Q2
	Hyp	Larger departments employed IACPCSM	Survey	Q1, Q2, Q5, Q6, Q7
	Hyp	More education of chief, employed IACPCSM	Survey	Q1, Q2, Q5, Q6, Q7, Q9
	Hyp	Younger chief, employed IACPCSM	Survey	Q1, Q2, Q5, Q6, Q7, Q8
What	RQ	<b>Difference in posting patterns between 2010 and 2014</b>		
	Hyp	2014 will have fewer posting categories than 2010	FB content	
	Hyp	2014, more public relations posts than 2010	FB content	
	RQ	<b>Difference in posting patterns between 2014 and 2015</b>		
	Hyp	2015 more reactive to current events than 2014	FB content	
	RQ	<b>Reinvention; non-public facing use, body worn cameras</b>		
	Hyp	Later adopters use social media differently than early adopters	Survey	Q2, Q10, Q11, Q12, Q13, Q14, Q15, Q16, Q17, Q27
	RQ	<b>Use of social media for non-public facing tasks</b>		
	Hyp	Larger departments more likely	Survey	Q2, Q11, Q13, Q15, Q17
	Hyp	More educated chiefs more likely	Survey	Q2, Q11, Q13, Q15, Q17, Q9
	Hyp	Younger chiefs more likely	Survey	Q2, Q11, Q13, Q15, Q17, Q8
	RQ	<b>Use of Facebook for non-public facing tasks</b>		
	Hyp	Larger departments more likely	Survey	Q2, Q10, Q12, Q14, Q16
	Hyp	More educated chiefs more likely	Survey	Q2, Q10, Q12, Q14, Q16, Q9
	Hyp	Younger chiefs more likely	Survey	Q2, Q10, Q12, Q14, Q16, Q8

<b>Why</b>	<b>RQ</b>	<b>Control of narrative</b>		
	Hyp	Distrust of traditional media correlates to lack of interactivity	Survey	Q1, Q2, narrative quotient
	Hyp	Distrust of media will correlate with earlier adoption	Survey	Q1, Q2, narrative quotient
	Hyp	Desire to control narrative will predict body-worn camera use	Survey	Q1, Q2, narrative quotient, Q27
	<b>RQ</b>	<b>Tips from public via social media</b>		
	Hyp	Larger departments will view this more favorably	Survey	Q21
	Hyp	More educated chief will view this more favorably	Survey	Q21, Q9



## Appendix E

### Facebook Content Analysis Post Coding

Categories	Subcategories	Descriptions
<b>Tips</b>	Safety tips	General reminders to be safe
	Crime prevention tips	Specific tips on how to avoid being a victim of crime
<b>Crimes</b>	Internet crime warning	Warnings about the specific and current risk of Internet based crime
	General crime warning	Warnings about the specific and current risk of general crime
	Crime blotter	Report on crime that is in progress or has just recently occurred
	Case progressing	Progress being made within 72 hr in a criminal investigation or case
	Be on the lookout/seeking information	Asking the public assistance in identifying or locating a suspect or evidence
<b>Alerts</b>	Arrest/success	Suspect(s) has been arrested, apprehended, or being extradited
	Evacuation/lockdowns	A given area is being evacuated or on lockdown due to a criminal or other activity
	Traffic	Accidents or other traffic-related issues that affect current traffic situation.
<b>DUI</b>		Anything related to DUI including safety tips and checkpoint
<b>Officer injured</b>	Officer injured/killed	Officer(s) has been physically harmed or killed in the line of duty within the past 30 days.
	Memorial (specific)	Officer(s) has been killed in the line of duty over 30 days ago
	Memorial (general)	Reminder of honoring the officer(s) who has been killed in the line of duty.
	Memorial (fundraising)	An event to raise funds for injured/killed officer(s)
<b>Missing person</b>	Amber alert	The phrase "Amber Alert" is included in the messages and is about a missing person
	Missing person	Report of a missing person
	Missing person found	Report that a missing person (victim) has been found
	Recruitment	Anything related to hiring, or screening, of potential candidates
<b>Public relations</b>	Mission	Messages highlighting the success of the department.
	Community interest	Messages making the community feel good about the police or the community
	Policy	Messages highlighting a new department practice or their stance on a policy
	Newsletter	Messages linked to a newsletter containing multiple stories
<b>Direct communication</b>	Direct message	Messages sent to a specific person(s) with guidance related to a specific person
	Irrelevant communication	Messages sent to a specific person(s) or a group that contain irrelevant content
<b>Directions to services</b>	Directions to agency/unit	Message provides directions on what to do in a given circumstance or situation
	Tip lines	Message promoting a tip line
	Reference to other SNS	Advertising the department's use of other SNS
	Department facilitated site	Message with a link to the department's general website or other social networking page
<b>Other</b>		Miscellaneous messages that none of the codes can describe the content
<b>Insufficient information</b>		Messages that do not have enough information to make an accurate determination

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## **Curriculum Vitae**

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### **Education**

- Doctor of Philosophy, Public Affairs, University of Nevada, Las Vegas, 2016
- Master of Arts, Political Science, Northeastern University, Boston, 1994
- Bachelor of Arts, Political Science, UMass-Lowell, Lowell, Massachusetts, 1991

### **Professional Experience**

#### **Adjunct Instructor, Government**

- ITT Tech, State and Local Government Online (2005)
- Austin Community College, US Government (1999-2004);
- UMass-Lowell, International Organizations, (1995).

#### **Consultant, Business Research and Information**

- Editor/Publisher, FactSet CallStreet. Editing and publishing corrected earnings and event call transcripts, including proofing and scoring the work of editors. (March 2006 – Present)
- Freelance Writer. Clients have included Harvard Law School and Imaginepub/Motorola
- Business Editor and Radio Host, Environmental News Network. Wrote many articles about opportunities for business to benefit from and contribute to the “green” movement. Interviewed guests for EarthNews Radio, syndicated on NPR and CBS Radio. (2005-2007)
- Consultant to President, MBA Team Corp. Web design and business services (since 1999)

#### **Senior Editor, Hoover's Inc./Dun & Bradstreet, Austin, Texas (1998-2004)**

- Managed a team of 15-20 editors who produced Hoover's business information and content
- Change management and leadership: Successfully led team through IPO and merger with Dun & Bradstreet; revenue increased from \$7 million to \$100 million per year in my tenure
- Spearheaded editorial department restructuring, tripling its efficiency
- Wrote numerous features about many business topics
- Featured on several America Online Market Chats, interviewed in numerous newspapers, and spoke before various trade organizations

## **Political and Media Consultant**

- Research Director, Janis Berry for Massachusetts Attorney General (1994)
- Research Director, Janet Jeghelian for US Senate (Massachusetts, 1994)
- Campaign Director, Michael Conway for US Congress (Fifth District, Massachusetts, 1992)
- Advisor, Tom Keane for City Council (Boston, 1993)
- Talk Show Host and Producer, WCAP radio, 980 AM, Lowell, Mass.; produced and hosted highly-rated morning drive time call-in issues program; interviewed members of congress, governors, presidential candidates, and authors (1994-1995)
- Commercial Analyst, Nielsen Media Research, 1996-97, Shelton, Conn.; analyzed television advertisement data from markets nationwide
- Guest Analyst, 1992 election, NewsCenter Six (Lowell, MA)
- Guest Analyst, 1994 election; “Adler On-Line” television program, WABU-TV, Boston