# NAVAL POSTGRADUATE SCHOOL

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# THESIS

**HOW THE DEMOCRATIZATION OF TECHNOLOGY ENHANCES INTELLIGENCE-LED POLICING AND SERVES THE COMMUNITY**

by

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December 2017

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This thesis examines how the democratization of technology can enhance intelligence-led policing and serve the community. The research compares the models of community policing and intelligence-led policing and considers how the leveraging of social media platforms and personal surveillance cameras can improve police intelligence collection and enhance relationships with the community. While research supports intelligence-led policing to be effective in crime reduction, intelligence-led policing may also produce unexpected benefits when coupled with mainstream technologies serving as a bridge to the people living in those communities. These technologies can create collaborative opportunities and roles of empowerment for citizens' personal safety, thus potentially increasing police legitimacy and fostering more democratic and participatory communities. By incorporating the best of community policing, such as its goals of relationship-building and improving police legitimacy, with the crime reduction capabilities of intelligence-led policing, we might call this community-enhanced intelligence-led policing. With this combination of values and positive outcomes, law enforcement may achieve the desired benefits of each model.

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# HOW THE DEMOCRATIZATION OF TECHNOLOGY ENHANCES INTELLIGENCE-LED POLICING AND SERVES THE COMMUNITY

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# ABSTRACT

This thesis examines how the democratization of technology can enhance intelligence-led policing and serve the community. The research compares the models of community policing and intelligence-led policing and considers how the leveraging of social media platforms and personal surveillance cameras can improve police intelligence collection and enhance relationships with the community. While research supports intelligence-led policing to be effective in crime reduction, intelligence-led policing may also produce unexpected benefits when coupled with mainstream technologies serving as a bridge to the people living in those communities. These technologies can create collaborative opportunities and roles of empowerment for citizens' personal safety, thus potentially increasing police legitimacy and fostering more democratic and participatory communities. By incorporating the best of community policing, such as its goals of relationship-building and improving police legitimacy, with the crime reduction capabilities of intelligence-led policing, we might call this community-enhanced intelligence-led policing. With this combination of values and positive outcomes, law enforcement may achieve the desired benefits of each model.

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# LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| ALPR | automated license plate reader |
| CCTV | closed circuit television |
| GIS | geographic information systems |
| GPS | Global Positioning System |
| IACP | International Association of Chiefs of Police |
| UCR | uniform crime reporting |

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# EXECUTIVE SUMMARY

The relationship between the community and the police can be tenuous at times. Due to various tensions and conflicts from decades ago to now, police departments struggle to improve community relations. Police seek to create and enhance programs to build relationships, engage residents, and increase police legitimacy, often through various community policing programs. However, intelligence-led policing is also capable of promoting and achieving these objectives through data-rich analysis and the use of criminal intelligence. The objective of this exploratory thesis is to consider how the democratization of technology enhances intelligence-led policing and serves the community. This thesis seeks to determine how the positive outcomes and benefits that today's widespread use of technology, used in coordination with the focus of intelligence-led policing, may contribute to stronger, safer, and more satisfied communities.

Most intelligence-led policing literature describes the use of certain technologies, but their focus is on internal processes and operations. Virtually none take into consideration their interaction or engagement with the public. Therefore, in place of a literature review, key concepts of this paper explain the models of community policing and intelligence-led policing, technology in the community, the democratization of technology, and police legitimacy. Later chapters demonstrate how these concepts are intertwined and may benefit both law enforcement and the community. Research also consisted of a review of many police departments' use of surveillance cameras and social media, particularly if formalized programs existed within the community.

When data is used in a focused approach as a driving force in intelligence-led policing, it can be an innovative instrument of collaboration between the two groups. Residents are playing a more active role in securing their own safety through technology and opportunities to do so are vastly increasing thanks to the democratization of technology. Researching intelligence-led policing, particularly through a framework of popular technologies and community participation, revealed some unforeseen and very important benefits. I believe intelligence-led policing has the unexpected potential to

create meaningful and collaborative relationships with the community, foster more democratic communities, and most surprisingly, enhance police legitimacy.

Technology has transformed law enforcement. Social media platforms and data captured by private surveillance systems have become and continue to be integral to police investigative practices and the analysis of criminal intelligence. When used in collaboration with the community, there is potential to transform relationships between the police and the community and change a disengaged citizen into an empowered citizen with opportunities to increase their personal safety.

The idea of combining the crime-reducing results of intelligence-led policing with the legitimacy goals and community engagement of community policing was expressed many years ago with the term "community intelligence-led policing."[1] In this paper, I revised the term to "community-enhanced intelligence-led policing" to put emphasis on intelligence-led policing with the enhanced benefits of collaborating with the community while capitalizing on popular technologies.

The democratization of technology has made collaboration possible by providing a platform for residents to be heard. Widespread, affordable, and easy-to-use technologies are connecting residents more than ever with their neighbors as well as police officers and providing opportunities for empowerment and partnership. Community-enhanced intelligence-led policing has the potential to serve communities by disrupting and reducing crime as well as empowering citizens with a voice and a new role in safety.

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[1]Martin Innes, Laurence Abbott, Trudy Lowe, and Colin Roberts, "Seeing Like a Citizen: Field Experiments in 'Community Intelligence-Led Policing,'" *Police Practice and Research,* no. 10:2 (2009): 99–114.

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# I.   INTRODUCTION

Despite conflict between many communities and police, as demonstrated through protests and demands for reform, communities still rely on their police departments for public safety. Polling shows wide racial gaps in confidence in the police, but many agencies across the nation are creating or bolstering programs to engage residents, strengthen community relations, and increase police legitimacy.[1] Intelligence-led policing can further these programs by being precise in which offenders to pursue and by capitalizing on data-rich analysis to set priorities and resources. The key is technology—and not just in the hands of the police.

Intelligence-led policing grew out of the post-9/11 "Homeland Security era."[2] As part of this "era" of expanded and deepened security policies and practices, the Department of Homeland Security was created and local and state police agencies were called upon to build domestic and international partnerships and to further information sharing to identify threats and develop responses that would effectively secure their communities.[3] Furthermore, in 2002, the International Association of Chiefs of Police (IACP) sponsored the Criminal Intelligence Sharing Summit, resulting in several key recommendations including police making better use of new and existing resources, increasing opportunities for building trust, and promoting intelligence-led policing.[4]

Effective policing today requires the intelligence-led policing model. Practitioners and academics have demonstrated intelligence-led policing as an effective model for integrating and analyzing data from a wide selection of sources critical to setting priorities, making executive-level decisions, and creating the best intelligence to further precise and focused policing. Criminal intelligence provides this informed focus, much

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[1] Bruce Drake, "Divide between Blacks and Whites on Police Runs Deep," Pew Research Center (blog), April 28, 2015, http://www.pewresearch.org/fact-tank/2015/04/28/blacks-whites-police/.

[2] Jerry H. Ratcliffe, *Intelligence-Led Policing*, 2nd ed. (London: Routledge, 2016), 25.

[3] Ratcliffe.

[4] Marilyn Peterson, *Intelligence-Led Policing: The New Intelligence Architecture* (Washington, DC: Bureau of Justice Assistance), September 2005, 3, https://www.ncjrs.gov/pdffiles1/bja/210681.pdf; Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 25.

more so than sweeping enforcement efforts, such as New York Police Department's past "stop and frisk" activity. These indiscriminate contacts alienated community members and significantly threatened police legitimacy.[5]

With intelligence-led policing's requirement of utilizing extensive data resources—from surveillance reports to confidential informants—this model may be seen by various members of the public as an invitation for police to violate their civil liberties. Whether this threat is real or perceived, it may still put the community at odds with its police department. Conversely, when data is used in a focused approach as a driving force in intelligence-led policing, it can be a great instrument of collaboration between the two groups. Rather than merely "being policed," residents are playing a more active role in securing their own safety through technology. These opportunities to do so are vastly increasing, thanks to the democratization of technology.

## A.    RESEARCH QUESTION

How does the democratization of technology enhance intelligence-led policing and serve the community?

## B.    KEY CONCEPTS

The literature base is relatively silent in research on intelligence-led policing discussing direct engagement with the community, which more conventionally is considered to be the domain of the community policing model. Also, most intelligence-led policing literature is inclusive of certain technologies, but few take into consideration the interaction or engagement with the public. Furthermore, particular law enforcement agency practices, including techniques and technologies, may not be well documented in the public realm. Finally, the majority of research on surveillance cameras pertains to the United Kingdom and refers to government-owned installations with a great variation of findings on the effects of crime deterrence and reduction.

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[5] Tom R. Tyler, Jeffrey Fagan, and Amanda Geller, "Street Stops and Police Legitimacy: Teachable Moments in Young Urban Men's Legal Socialization," *Journal of Empirical Legal Studies* 11, no. 4 (2014): 751–85.

Therefore, instead of a traditional literature review, I address key concepts that are central to this thesis that are addressed in the following chapters.

### 1.    Citizen Engagement

Citizens have long been actively engaged in keeping their communities safe. Their activity in crime prevention and participation in public safety pre-dates colonial times, when Native Americans kept order through public opinion as well as defined customs and religious sanctions.[6] In the colonial era of the 1600s, "volunteerism" was often mandatory and took the form of "watch and ward committees," which were formed as an early version of citizen patrols.[7] Their duties consisted of maintaining street lamps, reporting fires, dealing with runaway animals, and sounding a general alarm when criminal activity was observed.[8] Constabularies were later developed and viewed as a communal responsibility of all white male adults.[9] While their role extended into catching criminals, they tended to spend more time and attention toward the lucrative field of tax collection.[10] The role of citizens continued to evolve over the decades. Their service was so important that the establishment of citizen militias took form with the Second Amendment of the U.S. Constitution and further expanded with the Militia Act of 1792, which required most adult white males to bear arms and attend regular exercises.[11] According to historian Martin Greenberg, these volunteer militias were used primarily for "strike-breaking, riot control, and disaster relief."[12] The militia groups eventually fell into

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[6] William T. Hagan, *Indian Police and Judges Experiments in Acculturation and Control* (New Haven, CT: Yale University Press, 1966), 16.

[7] Martin Alan Greenberg, *Citizens Defending America: From Colonial Times to the Age of Terrorism* (Pittsburgh, PA: University of Pittsburgh Press, 2005), 3, https://www.upress.pitt.edu/htmlSourceFiles/ pdfs/9780822942641exr.pdf.

[8] Mark H. Moore and George L. Kelling, "To Serve and Protect: Learning from Police History," *The Public Interest*, no. 70 (1983): 51.

[9] Greenberg, *Citizens Defending America*, 4.

[10] Wilbur R. Miller, ed. *The Social History of Crime and Punishment in America: An Encyclopedia* (Thousand Oaks, CA: SAGE Publications, 2012).

[11] Greenberg, *Citizens Defending America*, 4.

[12] Greenberg, 5.

disuse, but "citizen soldiers" evolved into the modern National Guard system following the passing of the Militia Act of 1903.[13]

The growing urban populations of the mid-1800s gave rise to the creation of formal police organizations, which, in turn, significantly diminished the public safety role of the citizen.[14] Amid increases in crime, social disorder, and urbanization, policing became too much for citizen groups to handle. The cities of New York, Boston, and Philadelphia established police departments with a focus on combatting crime and disorder.[15] Today, some 765,000 men and women serve as officers in local, county, and state law enforcement in the United States.[16]

Citizen participation has evolved over a few hundred years, from securing safety as a private communal effort to shifting this responsibility to modern law enforcement officers. With approximately 2,000 United States police departments offering formal volunteer programs, many opportunities exist for citizens to serve.[17] New approaches to policing also have brought new opportunities for citizen involvement. The innovation of the community policing model brought citizens back into the picture of active participation in public safety through both formal and informal roles—for example, participation in volunteer programs or as an engaged neighbor willing to report suspicious activities in the neighborhood.

### 2.    Technology in the Community

While citizen involvement is foundational to the community policing model, intelligence-led policing also has the potential to capitalize on the force multipliers of the

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[13] "America's Citizen Soldiers—A Short History of the Militia in the United States" Military History Now, accessed November 7, 2017, http://militaryhistorynow.com/2017/04/10/americas-citizen-soldiers-a-short-history-of-the-militia-in-the-united-states/.

[14] *Encyclopedia Britannica,* s.v. police—early police in the United States, accessed August 31, 2017, https://www.britannica.com/topic/police/Early-police-in-the-United-States.

[15] *Encyclopedia Britannica.*

[16] "National Sources of Law Enforcement Employment Data," U.S. Department of Justice, accessed September 25, 2017, https://www.bjs.gov/content/pub/pdf/nsleed.pdf.

[17] "Volunteer Programs Enhancing Public Safety by Leveraging Resources," Bureau of Justice Assistance, accessed September 25, 2017, http://www.theiacp.org/Portals/0/documents/pdfs/LBL%20Resource%20Toolkit/Volunteer%20Programs.pdf.

community. There are thousands of additional eyes and ears beyond the officers' that are willing and able to engage through technologies such as social media or sharing private video surveillance. So, in addition to the models' divergent paths toward the common desire to engage with the community, their ultimate objectives vary significantly.[18] Furthermore, they tend to produce different results in areas from police legitimacy to harm and crime reduction.

Developing technologies over the last two hundred years has caused people to fear the weakening of the private community, disengagement from neighborhoods, and the decline of the public community.[19] While the rise of global Internet use, reaching mainstream populations in the mid-1990s, rekindled these concerns, subsequent technologies such as surveillance cameras are likely to be equally concerning. Access to the Internet in many cases has supplanted the need to build relationships and seek information from public or community officials as it has become much easier to find information anonymously without having to engage at the community or national level. Nevertheless, today's widespread availability and use of certain technologies are redefining roles for citizens to participate with law enforcement in improving the safety of communities. The use of social-media and surveillance-camera technologies are paving the way for police and citizen interaction that directly leads to crime reduction, the primary objective of intelligence-led policing.

Despite the concerns of the Internet spoiling socialization and community, many believe that technologies positively impact individuals and communities. Individuals choose to engage in new ways aided by technology to communicate, share, and learn. For example, a 1997 experiment in Toronto, Canada, known as "Netville" provided a random selection of a neighborhood community with a wireless Internet connection and an Internet-based communal platform.[20] The objective of the study was to answer the

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[18] Ratcliffe, *Intelligence-Led Policing,* 2nd ed.

[19] Keith Hampton and Barry Wellman, "Neighboring in Netville: How the Internet Supports Community and Social Capital in a Wired Suburb," *City & Community* 2, no. 4 (2003): 2.

[20] Hampton and Wellman.

question of what the Internet was doing to the local community.[21] The results demonstrated that neighbors were not alienated nor did they withdraw from their community. In fact, it was deemed that the platform assisted to "personalize first encounters with a sense of shared interest and a sense of community."[22]

The findings reveal that communities that connect through social media platforms may appear more engaged with one another, participate in looking out for each other's safety, and recognize themselves as being more "neighborly."[23] Shared values and interests, coupled with today's technologies, can fuel powerful collaborative partnerships.

### 3.     Democratization of Technology

The phrase "democratization of technology" refers to the rapid accessibility, affordability, and ease of use of technology for today's consumers.[24] This globalization by-product creates opportunities for citizens to engage in improving their own personal safety in ways that previously did not exist. For example, surveillance cameras were once expensive and highly technical but now are very affordable and easy to operate and maintain. Intelligence-led policing's focus on technology, data, and analysis leverages this new widespread use, particularly through the use of cameras, for the empowerment of neighborhoods and their residents to contribute information to affect policing and crime. The relationship between parties becomes much less one-dimensional, rather more democratic. The multitude of technological products, from video-enabled smartphones to front-porch surveillance cameras, creates opportunities for collaborative relationships between the police and their communities that may have been previously damaged or otherwise not have existed.

Andrew Feenberg, a leading technology philosopher and researcher, argues that expanding technology to include alternative interests and values can be a tool of

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[21] Hampton and Wellman, 1.

[22] Hampton and Wellman, 18.

[23] Hampton and Wellman, 25.

[24] Thomas L. Friedman, *The Lexus and the Olive Tree* (New York: Anchor Books, 2000), 38; Samir Estefan, "The Democratization of Technology," ISACA, accessed November 5, 2017, http://www.isaca.org/Knowledge-Center/Blog/Lists/Posts/Post.aspx?ID=330.

inclusiveness, an important participatory role for users.[25] This inclusiveness fosters opportunities for citizens to interact with government. When technology is not imposed upon the people but includes them, it may diminish controversy and concerns, primarily over privacy issues. Globalization and technological advances create opportunities for citizens to improve their safety in ways that were previously nonexistent. Technology becomes empowering and democratic when it provides a platform for participation, creates space for voices to be heard, allows information sharing, and facilitates relationships between groups.[26] These democratic qualities can be accomplished through police and community collaboration with technologies as a bridge.

### 4. Police Legitimacy

Tom Tyler, a leading police researcher, explains legitimacy as "a measure of the extent to which the public trust and have confidence in the police, are willing to defer to the law and to police authority, and believe that police actions are morally justified and appropriate."[27] He also describes it as "*judgments* that ordinary residents make about the authority of police to make decisions about how to enforce the law and maintain social order."[28]

Researchers of police legitimacy show there are many proven benefits. People are more likely to obey laws and cooperate with police officers when they see their police department as legitimate.[29] They comply, not out of fear of punishment or expectation of reward, but because they believe that it is appropriate and just.[30] Citizens also report

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[25] Tyler J. Veak, *Democratizing Technology: Andrew Feenberg's Critical Theory of Technology* (Albany, NY: State University of New York Press, 2006), https://muse.jhu.edu/book/5129.

[26] "Citizen Participation and Technology: An NDI Study," National Democratic Institute, 11, accessed May 16, 2017, https://www.ndi.org/sites/default/files/Citizen-Participation-and-Technology-an-NDI-Study.pdf.

[27] "Legitimacy and Procedural Justice—a New Element of Police Leadership," Police Forum, 33, accessed August 8, 2016, http://www.policeforum.org/assets/docs/Free_Online_Documents/Leadership/legitimacy%20and%20procedural%20justice%20-%20a%20new%20element%20of%20police%20leadership.pdf.

[28] Police Forum, 11.

[29] Police Forum, 3.

[30] Jason Sunshine and Tom R. Tyler, "The Role of Procedural Justice and Legitimacy in Shaping Public Support for Policing," *Law & Society Review* 37, no. 3 (2003): 513–48.

higher levels of satisfaction and confidence in the police.[31] Citizens are influenced by perceptions of legitimacy that will determine whether they will participate in crime prevention activities, either formal or informal, such as partnering with community members to work on issues or reporting criminal activity.[32] Therefore, it is not surprising that research shows legitimacy may result in crime reduction. Tyler states, "When police generate good feelings in their everyday contacts, it turns out people also are more motivated to help them fight crime."[33]

There are many good reasons to develop respectful and trusting relationships. According to the National Initiative for Building Community Trust & Justice, "The most important is that communities in which police are considered legitimate are safer and more law-abiding."[34] Furthermore, the significance of legitimacy to effective policing takes on particular importance in lower economic and minority communities where friction between residents and police may already be an ongoing source of hostility and mistrust.[35]

## C.    RESEARCH DESIGN

This thesis explains how the democratization of technology provides law enforcement an innovative way of engaging the community under the intelligence-led policing model. Specifically, this thesis examines the technologies of community surveillance cameras and social media platforms. The research demonstrates how the technologies offer citizens a means of empowerment and how it may enhance the relationship between the police and community.

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[31] Police Forum, "Legitimacy and Procedural Justice—a New Element of Police Leadership," 2.

[32] Lyn Hinds and Kristina Murphy, "Public Satisfaction with Police: Using Procedural Justice to Improve Police Legitimacy," *Australian & New Zealand Journal of Criminology* 40, no. 1 (April 1, 2007): 27–42, https://doi.org/10.1375/acri.40.1.27; Sunshine and Tyler, "The Role of Procedural Justice and Legitimacy in Shaping Public Support for Policing."

[33] Tom R. Tyler and Jeffrey Fagan, "Legitimacy and Cooperation: Why Do People Help the Police Fight Crime in Their Communities," *Ohio St. J. Crim. L.* 6 (2008): 231.

[34] "National Initiative for Building Community Trust and Justice," National Initiative, accessed September 6, 2016, https://trustandjustice.org/about/mission.

[35] Hinds and Murphy, "Public Satisfaction with Police," 30.

### 1.    Selection

I selected this triumvirate of policing (intelligence-led policing, democratization of technology, and community engagement) due to the successes I have seen in my organization of using technology (i.e., community surveillance cameras and social media) to engage citizens in participating in the investigative and intelligence process, but also as a proactive and direct practice of partnering with the police in promoting their own safety and that of their community.

### 2.    Data Sources

I reviewed police department websites for their various surveillance camera programs and sought additional data—often found to be lacking—on the community's role with technology. Most of these materials were peer-reviewed journal articles, some case studies (including project results from my own agency, the Fremont, California, Police Department), and extensive open-source media reports and government-based articles. I did not conduct any interviews or surveys to further my research.

### 3.    Type and Mode of Analysis

I conducted an exploratory analysis of how the democratization of technology serves intelligence-led policing and the community. While extensive literature exists on all three components of this paper, the three have not been synthesized or studied together to further shape the direction of intelligence-led policing or make future recommendations to police departments and technology-minded citizens. After analyzing the benefits and limitations of policing models and various technologies, I do not conclude this thesis with a traditional recommendations format; rather I provide analysis and aspirations for intelligence-led policing as an effective bridge between law enforcement and the community through the democratization of technology. Moreover, I suggest how police and citizens can implement smart practices of utilizing technology platforms, instruments, and applications in partnership with their local police department.

**4.      Audience**

This paper explains two prominent policing models, their intersections and distinctions, and demonstrates the potential of technology to build relationships with the community, thus allowing them a role in enhancing the safety of the public. My intended reader will likely be police stakeholders who may be previously unfamiliar with the power of capitalizing on widely accessible technologies, but especially, those particularly interested in fostering relationships with a community that encourages its citizens to have a voice and sense of empowerment in their own safety. Also, I hope local and state intelligence officers conclude that the benefits of technology extend beyond an evidentiary and investigatory scope; that it may also improve intelligence collection as well as providing an opportunity to form relationships with community members.

**D.      CHAPTER OUTLINE**

The chapters of this exploratory thesis project occasionally stray from their thematic lanes as the primary thesis components of intelligence-led policing, the democratization of technology, and community engagement are so closely related and interwoven. These elements, from a comparison of models to the unforeseen benefits of police legitimacy, seem to thread through each section despite efforts to keep the research and analysis in their own areas.

Chapter I introduces the tensions between select communities and law enforcement and suggests that opportunities to counter this problem lies within the focus of intelligence-led policing and the new paradigm of widespread technologies that offer a new role for citizens to participate in their own safety. In place of a standard literature review, this chapter addresses key concepts addressed throughout this paper. Chapter II provides an overview of two dominant policing models— intelligence-led policing and community policing—and how they differ and intersect. Chapter III demonstrates the widespread and powerful technological tools of privately owned surveillance cameras and social media platforms and how they facilitate collaboration between police departments and the communities they serve. Chapter IV

envisions a combination of community policing values and objectives with the tools and techniques of intelligence-led policing. Furthermore, it explains potential unexpected benefits of this policing approach to include more democratic communities and improved police legitimacy.

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## II.    COMMUNITY POLICING VERSUS INTELLIGENCE-LED POLICING

Some practitioners and academics believe that community policing and intelligence-led policing are antithetical to one another.[36] This belief is likely based on the fact that their key objectives are fundamentally different. Essentially, the primary aim of community policing is to improve the perception of police legitimacy whereas the main focus of intelligence-led policing is the prevention and reduction of crime and harm in the community.[37] The priorities of community policing are generally set by the community in partnership with neighborhood officers while intelligence-led policing is vastly determined by police executives utilizing crime intelligence and analysis.[38] Each model's hierarchical structure is different, too. Community policing is a bottom-up approach that relies on community residents and street officers to determine the priorities and find the means to be effective.[39] Intelligence-led policing is a top-down approach, meaning it is hierarchical with the command staff setting police priorities to be implemented by the rank and file.[40] Despite these key differences, community policing is said to be foundational to much of intelligence-led policing.[41] This chapter moves to the modern era of policing, describes the models of community policing and intelligence-led policing, and discusses the ways they are applied, as well as how they intersect.

### A.    COMMUNITY POLICING

Community policing was born from the policing crisis following the civil rights and anti-war movements of the late 1960s and early 1970s.[42] In the law enforcement

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[36] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 65; Innes et al., "Seeing Like a Citizen,"112.

[37] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 66.

[38] Ratcliffe, 54.

[39] Ratcliffe, 66.

[40] Ratcliffe.

[41] David L. Carter, "Law Enforcement Intelligence: A Guide for State, Local, and Tribal Law Enforcement Agencies," U.S. Department of Justice, Community Oriented Police Services, 2004, 41, https://ric-zai-inc.com/Publications/cops-w0277-pub.pdf.

[42] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 23.

context, respect by and support of the citizenry had diminished considerably, fracturing lines of communication and both the gathering and the exchange of information. For example, law enforcement's use of water cannons and police dogs on relatively peaceful gatherings protesting the Vietnam War or championing the civil rights movement were detrimental to policing, particularly popular support for law enforcement, in the longer run.[43] These circumstances led police to reassess their needs and provided a change of perspective, one that would require the cooperation and support of the community. For example, when riots had become widespread across the nation, often as a result of violent incidents between police and citizens, policy makers and politicians were forced to reevaluate their situation and seek changes.[44]

Academic professionals engaged with the police to explain the root of the crisis and explore solutions.[45] Researchers partnered with historians, psychologists, criminologists, and policy makers to scrutinize all aspects of policing.[46] Critical issues were studied and addressed, ranging from police practices of hiring and training to racial discrimination in enforcement activities and use of force.[47] All of this research and focus resulted in a new paradigm of policing, a model that relied on the community for priority setting and bridging a long existing gap of communication and partnership between police and the communities they serve.

This shift led to the era of community-oriented policing—a philosophy and a policing model with a primary objective of improving police legitimacy.[48] The intended outcome was to improve communications and relations with the public through new policing tactics and strategies.[49] This momentum is partly attributed to President Lyndon

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[43] Ratcliffe, 23.

[44] Ratcliffe.

[45] "History of American Policing," What-When-How, accessed May 12, 2017, http://what-when-how.com/police-science/history-of-american-policing/.

[46] What-When-How.

[47] What-When-How.

[48] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 61.

[49] "The National Criminal Intelligence Sharing Plan," U.S. Department of Justice, Office of Justice Programs, 2003, 4, https://jpo.wrlc.org/bitstream/handle/11204/4232/National%20Criminal%20Intelligence%20Sharing%20Plan.pdf?sequence=1.

Johnson's 1965 report produced by the Crime Commission on Law Enforcement. It recommended that police work had to regain legitimacy and improve its standing through community relations programs.[50]

In this new era, citizens again became important partners and stakeholders in public safety. There were spurts of innovation in the formation of different advocacy groups among the citizenry. From the unconventional formation of unarmed citizen patrols known as the Guardian Angels in 1979 in New York to the emergence of neighborhood crime watch groups, which are still prevalent in 21st-century America, many citizens yearned to play a role in keeping their communities safe from harm.[51] Since then, citizen police academies have begun providing some degree of training and increasing awareness for how law enforcement organizations interact with the public and the judicial system.[52] In 2005, approximately half of law enforcement agencies offered such programs to their communities.[53] These academies offer citizens a chance to play a role in their safety. By offering rare insight into law enforcement practices and officer perspectives, citizens gain a better understanding of what types of information is of value to police and how officers will use it. Furthermore, academies foster an uncommon personal interaction with officers that may set the groundwork for future partnerships.

Community policing offered accountability in law enforcement, which had long been absent.[54] For example, police executives and neighborhood officers would attend community meetings and directly address the concerns and needs of the public. Moreover, with the community policing practice of assigning long-term patrol officers to particular neighborhoods, officers accepted greater responsibility and accountability to

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[50] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 23.

[51] Susan Pennell, Christine Curtis, and Joel Henderson, *Guardian Angels: An Assessment of Citizen Response to Crime* (San Diego, CA: San Diego Association of Governments, October 1985), 4–28.

[52] J. Bret Becton et al., "Can Citizen Police Academies Influence Citizens' Beliefs and Perceptions?," *Public Management* 87, no. 4 (May 2005): 20–23.

[53] Becton et al.

[54] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 23.

those neighborhoods as well as the command staff.[55] As the Bureau of Justice Assistance defines it, community policing is "A collaboration between the police and the community that identifies and solves community problems."[56] It relieves the police from being the primary keepers of the law and encourages all community members to act in an engaged partnership to improve the quality and safety of their communities.[57]

Dr. Jerry Ratcliffe explains that community interaction with the police works either through collaboration or consultation.[58] Ideally, citizens do this by being vigilantly aware of issues in their neighborhoods, providing detailed information to their local officers, and most importantly, working together with police toward possible solutions. However, such "consultations" may be limited as the onus is on the police to determine the information's value and applicability to contribute to solving a problem. Furthermore, these limitations may not matter, as evidence shows residents are generally satisfied with having the opportunity to have their voices heard by their police officers.[59]

Wesley Skogan argues that without the integration of three key elements of community policing, the police department's effectiveness falls short.[60] He describes these elements as *citizen involvement*, *problem-solving*, and *police decentralization*.[61] These make community policing attractive to law enforcement leaders wanting to improve lost confidence and to politicians wanting to improve police standing and reduce the fear of crime in the community.[62] A meta-analysis of community policing suggests

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[55] U.S. Department of Justice, Bureau of Justice Assistance, *Understanding Community Policing: A Framework for Action* (Washington, DC: U.S. Department of Justice, Bureau of Justice Assistance, August 1994), 48, https://www.ncjrs.gov/pdffiles/commp.pdf.

[56] U.S. Department of Justice, Bureau of Justice Assistance, vii.

[57] U.S. Department of Justice, Bureau of Justice Assistance, vii.

[58] Ratcliffe, *Intelligence-Led Policing,* 2nd ed.*,* 51.

[59] Wesley G. Skogan, "The Impact of Community Policing on Neighborhood Residents: A Cross-Site Analysis," in *The Challenge of Community Policing: Testing the Promises* (Thousand Oaks, CA: SAGE Publications, 1994), 180, http://www.skogan.org/files/ Impact_of_Comm_Pol_on_Nbhd_Residents.Rosenbaum.pdf.

[60] Wesley G. Skogan, "The Promise of Community Policing," in *Police Innovation: Contrasting Perspectives,* David Weisburd and Anthony A. Braga, eds. (New York: Cambridge University Press, 2006), 28.

[61] Skogan, 28.

[62] Skogan, 28.

the three main areas of focus are "community partnerships, organizational transformation, and problem-solving activities."[63] Instead of traditional police strategies using rapid response in reaction to crime incidents, community policing instead seeks to address the root problem with citizen partners.[64] Policing becomes decentralized, flattening the hierarchy and allowing officers to use their discretion in trying new methods in problem-solving and relationship building.[65] It is vital that officers, *with* the residents, prioritize what needs to be done to keep the neighborhood safe and to establish themselves as integral partners to the residents.

Then and now, the main objective of the community policing model is to improve police legitimacy.[66] Despite a multitude of challenges facing community policing, the police benefit from citizen satisfaction when they are responsive and able to provide opportunities for residents to get to know the individual officers assigned to their neighborhoods. A key criterion of success is the satisfaction of the community.[67] The community may have to reconcile feelings of satisfaction with its police department against feeling potentially unsatisfied with levels of safety and crime reduction. While the issue of police legitimacy is paramount to a community, this balance of community satisfaction and less-effective crime fighting is an important challenge to consider.

A typical example of how officers apply community policing illustrates their reliance on the public. For example, a pair of officers on foot patrol are walking the beat of the central business district. They engage in conversation with a few business owners and customers. They hear complaints of transients sleeping nearby, a storefront vandalized by graffiti, and a few incidents of overnight burglaries. The officers build a rapport with the owners and exchange information. The officers take this information of repeat crime problems to their analyst and work together to identify underlying causes to

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[63] "Community-Oriented Policing Strategies: Meta-Analysis of Law Enforcement Practices," *Journalist's Resource* (blog), March 11, 2015, https://journalistsresource.org/studies/government/criminal-justice/the-impact-of-community-policing-meta-analysis-of-its-effects-in-u-s-cities.

[64] Skogan, "The Promise of Community Policing," 27–43.

[65] Skogan.

[66] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 50.

[67] Ratcliffe, 54.

the problem and any data that might indicate this is a pattern of criminal activity. They consider environmental factors, such as street lighting and obstructions of view as well as the modus operandi, time of day, and day of week of the incidents. They consider what is in the adjacent area—for example, a homeless shelter or social services—and who they may need to collaborate with to address the crime and quality-of-life issues.

Officers will attend a neighborhood crime watch meeting to provide crime prevention information to inform business owners of recommended safety measures and increase the uniform presence of officers in the area. This personalized attention and problem-solving effort will likely increase the satisfaction of those in the downtown area. After all, the officers recognize the owners' concerns, seek further information and analysis to provide solutions, and provide enforcement measures that may likely displace the problem. Whether the displacement is temporary or permanent likely relies on the accurate analysis of the problem and whether the problem-solving solutions were appropriate and effective. Furthermore, the community policing strategy of increasing uniformed personnel in an area may be enough to satisfy citizens.[68]

The cornerstone of community policing is its emphasis on building partnerships with the community. One belief is that police alone cannot keep communities safe; volunteers and concerned citizens are integral to preventing disorder and crime.[69] In fact, the citizens are so integral to policing that they play a significant role in determining policing priorities based on their concerns and identification of issues within their communities.[70] However, with the variation of community policing definitions—from lists of programs, projects, and tactics to departmental cultural shifts—the quality of citizen involvement is a major factor to success. For example, a police department might be pleased with a great turnout at "Coffee with a Cop," but once individuals have their say on an issue, their role typically ends. Merely attending a meeting does not necessarily count as collaboration. When using the community policing model, once a problem has

[68] Bureau of Justice Assistance, *Understanding Community Policing*, 14.

[69] Wesley G. Skogan, "Community Participation and Community Policing" (presentation, University of Montreal, November 1994, revised January 24, 1995), 1, http://www.ipr.northwestern.edu/faculty-experts/docs/policing_papers/caps4.pdf.

[70] Skogan, "The Promise of Community Policing," 27.

been identified, police may likely respond with an increased presence of officers and organize neighborhood meetings to provide possible solutions and assurances.[71] Research shows that this response is effective at increasing citizens' perception of safety yet, in fact, ineffective at reducing crime.[72]

A multitude of factors may impede the effectiveness of community policing. Ratcliffe explains some failures of community policing are due to its implementation without well-defined aims or objectives. When problems are identified, they are too broad and fall outside the scope of what officers deem "police work."[73] For example, while more and more police departments are creating teams to tackle complaints of transients and homelessness, these cases often require mental health experts and extensive social services. However, without the appropriate resources, officers are at a significant disadvantage to resolving the issue or may altogether choose to ignore it.

Skogan adds to a list of impediments to include resistance from the ranks.[74] Buy-in from the rank and file may be challenging as many officers dismiss community policing as "political" or a "fad."[75] Officers may believe that civilians do not have a place dictating police operations.[76] Skogan also suggests an important paradox; the community policing model relies on citizen cooperation yet many within the community may be uncooperative due to negative past experiences with the police.[77] Furthermore, they may

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[71] Bureau of Justice Assistance, *Understanding Community Policing*,14.

[72] Charlotte Gill et al., "Community-Oriented Policing to Reduce Crime, Disorder and Fear and Increase Satisfaction and Legitimacy among Citizens: A Systematic Review," *Journal of Experimental Criminology* 10, no. 4 (December 2014): 399–428, https://doi.org/10.1007/s11292-014-9210-y; David Weisburd and John E. Eck, "What Can Police Do to Reduce Crime, Disorder, and Fear?," *The Annals of the American Academy of Political and Social Science* 593, no. 1 (May 1, 2004): 52–53, https://doi.org/10.1177/0002716203262548.

[73] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 52.

[74] Wesley G. Skogan, "Community Policing: Common Impediments to Success: The Past, Present and Future Community Policing," eds. L. Friddel and M. A. Wycoff (Washington, DC: Annie E. Casey Foundation, 2004), 163, http://www.skogan.org/files/Comm_Policing-Common_Impediments_to_Success.Fridell_Wycoff_2004.pdf.

[75] Skogan, 163.

[76] Skogan, 164.

[77] Skogan, 166.

be reluctant to cooperate out of fear of retaliation or disapproval from fellow community members.[78]

Community policing varies greatly in its meaning and implementation, often debated as either a model of service programs or a philosophical approach to policing.[79] Many departments emphasizing community policing offer a litany of community programs such as neighborhood crime watch meetings, foot patrols, and citizen academies.[80] However, Skogan explains, "Community policing is not a set of specific programs. Rather, it involves changing decision-making processes and creating new cultures within police departments."[81] In other words, police must deviate from reactive methods, instead turning to the community to identify and solve problems. As an organizational strategy, community policing encourages priority-setting to be determined by the residents and the neighborhood officers that serve them.[82] Skogan affirms that community policing "is a process rather than a product."[83] If Skogan is right, the catalog of programs is not enough for police effectiveness; programs vary by agency, and police priorities are at the impulse of citizen demands.

While community policing is good for forging relationships, it may not necessarily be good for crime prevention or reduction. After reviewing 25 studies of community policing in U.S. neighborhoods, researcher Charlotte Gill concludes, "Community-oriented policing strategies have positive effects on citizen satisfaction, perceptions of disorder, and police legitimacy, but only limited effects on crime and fear of crime."[84] While the benefits of community policing are extremely valuable, the model and its broad interpretations tend to vary from department to department, making it difficult to evaluate.[85] Skogan supports the belief that community policing is difficult to

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[78] Skogan, 166.

[79] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 50.

[80] Ratcliffe, *Intelligence-Led Policing.*

[81] Skogan, "The Promise of Community Policing," 2006, 27.

[82] Skogan.

[83] Skogan, 28.

[84] Gill et al., "Community-Oriented Policing to Reduce Crime," 399.

[85] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 51.

measure. He states, "Many of its presumed benefits do not show up in information systems."[86] The difficulty in quantifying the effect of community policing may contribute to some successes, as well as shortcomings and failures, going unnoticed.

## B. INTELLIGENCE-LED POLICING

Intelligence-led policing emerged from the Kent Constabulary in the United Kingdom in response to a rising crime problem in a period of budget reductions in the 1990s.[87] This early program, known as the Kent Policing Model, is foundational to today's intelligence-led policing practices and principles. The Kent Constabulary placed a strong emphasis on intelligence collection following the shifting of resources to proactive units. No longer would the emphasis rely on reactive investigative work, rather operations and tactics would be driven by criminal intelligence analysis.[88] They were the first police department to practice bona fide intelligence-led policing.[89] In 2002, U.S. policing had a critical need to fix the inadequacies that impeded information and intelligence sharing.[90] A Criminal Intelligence Sharing Summit in 2002 brought law enforcement experts and executives together to address communication failures that may have contributed to the 9/11 terrorist attacks.[91] State and local experts theorized that intelligence-led policing would facilitate better information-sharing, identification of threats, and development of responses to secure their respective hometown communities.[92]

The summit produced several key recommendations for police to improve information and intelligence sharing across all strata of law enforcement. These suggestions included making better use of new and existing resources, increasing

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[86] Skogan, "The Promise of Community Policing," 2006, 41.

[87] Peterson, "Intelligence-Led Policing: The New Intelligence Architecture," 9.

[88] Jerry H. Ratcliffe, *Intelligence-Led Policing*, 1st ed. (London: Routledge, 2011), 6.

[89] Ratcliffe, 6.

[90] "The National Criminal Intelligence Sharing Plan," U.S. Department of Justice, Office of Justice Programs, 2003, iii, https://jpo.wrlc.org/bitstream/handle/11204/4232/ National%20Criminal%20Intelligence%20Sharing%20Plan.pdf?sequence=1.

[91] U.S. Department of Justice, Office of Justice Programs.

[92] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 25.

opportunities for building trust, and promoting intelligence-led policing.[93] While the first two of these ideas are grounded in community policing, the promotion of a new policing model was an entirely new concept for the U.S. law enforcement community. And from this new awareness of the all-important need for communication and sharing, the intelligence-led policing model applies not just to terrorism but, according to Ratcliffe, to "all-crimes, all-hazards, all-harms" as well.[94] With this approach, there is an increased likelihood of identifying links between crime and threats of terrorism.[95] Therefore, intelligence-led policing must have connections with the community. Local residents are most likely to have information that leads to the prevention or disruption of terrorist incidents.[96] This adaptability of intelligence-led policing makes it incredibly valuable to the intelligence and law enforcement community.

From this summit, the Global Intelligence Working Group was formed to examine potential blueprints for intelligence-led policing. Eventually, it developed the nation's National Criminal Intelligence Sharing Plan and called for U.S. law enforcement agencies to develop an intelligence-led policing model.[97] This plan, endorsed by the U.S. Department of Justice and the IACP, was meant to be a key tool for sharing intelligence and safeguarding the nation.[98] The participants addressed the need for all levels of law enforcement to fully cooperate with federal agencies in intelligence sharing and eliminating any barriers that might impede them.[99] This request for full cooperation includes providing to law enforcement any of the necessary tools and resources for collaboration. A combined effort would allow for the developing, accessing, and sharing

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[93] Peterson, "Intelligence-Led Policing: The New Intelligence Architecture," 6; Ratcliffe, *Intelligence-Led Policing*, 2nd ed., 25.

[94] Ratcliffe, *Intelligence-Led Policing*, 2nd ed., 67.

[95] E. F. McGarrell, J. D. Freilich, and S. Chermak, "Intelligence-Led Policing as a Framework for Responding to Terrorism," *Journal of Contemporary Criminal Justice* 23, no. 2 (May 1, 2007): 153, doi:10.1177/1043986207301363.

[96] Ratcliffe, *Intelligence-Led Policing*, 2nd ed., 115.

[97] U.S. Department of Justice, Office of Justice Programs, "The National Criminal Intelligence Sharing Plan," v.

[98] McGarrell, Freilich, and Chermak, "Intelligence-Led Policing as a Framework for Responding to Terrorism," 143.

[99] U.S. Department of Justice, Office of Justice Programs, "The National Criminal Intelligence Sharing Plan," iii.

of intelligence information, all of which improves the efforts of public safety and homeland security.[100]

Like community policing, there are several variations or interpretations of intelligence-led policing. While there is no universal definition for intelligence-led policing, Ratcliffe writes:

> Intelligence-led policing emphasizes analysis and intelligence as pivotal to an objective, decision-making framework that prioritizes crime hot spots, repeat victims, prolific offenders and criminal groups. It facilitates crime and harm reduction, disruption and prevention through strategic and tactical management, deployment, and enforcement.[101]

Essentially, intelligence-led policing is a data-driven approach calling for the integration and analysis of data from a wide selection of sources. This analysis is critical for decision makers in setting priorities, making executive level decisions, and creating the best intelligence to further precise and focused policing.[102] Analysis is also integral to the allocation of necessary resources, including the deployment of officers.[103] Also central to intelligence-led policing as a unique policing model is its focus on the identification and apprehension of serious and prolific offenders.[104] Research has shown that implementing this policing model is an effective evidence-based approach to reducing crime.[105] Crime reduction is often successful through a thorough analysis of crime hot spots, criminal groups, and prolific offenders.[106]

Intelligence-led policing strategically integrates intelligence analysis in the overall mission of the police department requiring three key components, which Ratcliffe

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[100] U.S. Department of Justice, Office of Justice Programs.

[101] Ratcliffe, *Intelligence-Led Policing,* 2nd ed.*,* 66.

[102] Ratcliffe.

[103] Ratcliffe.

[104] Ratcliffe.

[105] Jerry H. Ratcliffe, "Intelligence-Led Policing: Anticipating Risk and Influencing Action," *Intelligence*, 2010, 9, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.364.6795&rep= rep1&type=pdf.

[106] Ratcliffe, *Intelligence-Led Policing,* 2nd ed.; Anthony A. Braga and David L. Weisburd, "Police Innovation and Crime Prevention: Lessons Learned from Police Research over the Past 20 Years," SSRN, 2015, 11, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2633381.

identifies as the *3i model*.[107] First, analysts must *interpret* the criminal environment.[108] This requires a proactive effort by the analyst to seek information from officers and other sources to understand the crime issues in the community. Second, the analyst must be able to *influence* the department's decision-makers.[109] Leaders must understand the value of crime analysis and intelligence as well as being open to the analysts' recommendations. Finally, it requires principal decision-makers to be receptive to, and to use, intelligence and analysis to have an *impact* on the criminal environment and facilitate crime reduction.[110]

A practical example of how intelligence-led policing relies on technology and analysis may resemble the following typical scenario. An analyst identifies that burglaries are on the rise in a particular neighborhood through crime reports, mapping, and officer insights. Through the analysis of various data sources, an intelligence product, such as a bulletin or executive summary, is created and shared with command staff. The analyst must be willing to make determinations and recommendations of responses to quash the activity. For example, an analyst must not only publish their findings with a degree of confidence, but also be prepared to recommend to staff that additional resources or a different deployment strategy is necessary to disrupt or prevent the criminal activity. The command staff, or decision-makers, then agree to authorize overtime for extra surveillance and support additional intelligence-led policing practices such as hot-spot mapping, the push for officers to cultivate information from informants, and a survey of neighborhoods for video footage. All of these can have an impact on the crime issue initially addressed by the analyst.

If informants or surveillance video reveal a suspect or a group of suspects, a detective may write a warrant to place a Global Positioning System (GPS) tracker on a vehicle or to analyze a suspect's historical call detail records to determine his location at the date and time of crimes. Additional efforts to identify and analyze known offenders in

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107 Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 80.

108 Ratcliffe, 81.

109 Ratcliffe, 82.

110 Ratcliffe, 83.

the area would also be useful. All of this data and analysis would be synthesized to implement a plan of apprehension and to disrupt the burglaries. When strategies focus efforts on identifiable risks, such as prolific offenders and crime hot spots, police agencies are able to prevent crime and disorder.[111]

Intelligence-led policing and its tools and resources can play an important role in keeping the public informed and creating opportunities of trust. Therefore, it is important to consider that the absence of data, statistics, and analysis available to our community can cause great strife and reasons to distrust the police.[112] For example, in the aftermath of several high-profile shootings of unarmed black men by police, communities called out for the statistical counts of similar deaths.[113] The FBI, through a reporting mechanism known as Uniform Crime Reporting (UCR), compiles statistics of most crime categories in the United States as well as detailed accounts of officers killed in the line of duty.[114] However, no comparable database exists for citizens killed by the police. The FBI collects such data from local law enforcement, but participation is only voluntary.[115] With the absence of this information, several private organizations have taken the initiative of filling this data gap by creating a national database of those killed by police based on public records and media reports.[116] Facing great criticism from the public, former FBI Director James Comey acknowledged this glaring absence of information and criticized the lack of data. While addressing the IACP, he said, "It is a narrative that has formed, in the absence of good information and actual data, and it is this: Biased police

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[111] Braga and Weisburd, "Police Innovation and Crime Prevention," 11.

[112] "We Need Data to Rebuild Trust in the Police," New America, accessed November 4, 2017, /weekly/edition-132/we-need-data-rebuild-trust-police/.

[113] Michael Grothaus, "The U.S. Doesn't Track Deaths by Police, So Citizens Are Doing It," Fast Company, June 18, 2015, https://www.fastcompany.com/3045724/fatal-encounters-crowdsourcing-deaths-by-police.

[114] "Crime in the U.S.," Federal Bureau of Investigation, accessed May 27, 2017, https://ucr.fbi.gov/crime-in-the-u.s.

[115] "About the Uniform Crime Reporting (UCR) Program," Federal Bureau of Investigation, accessed September 25, 2017, https://ucr.fbi.gov/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/aboutucrmain.

[116] Grothaus, "The U.S. Doesn't Track Deaths By Police, So Citizens Are Doing It."

are killing black men at epidemic rates."[117] He went on to explain that the lack of accurate information encourages people to believe narratives of brutality from events caught on video but warned that numerous videos are not proof there is a nationwide epidemic.[118] Thus, it seems, when one does not have access to data or information, it is likely they will create their own narrative, trusting a certain idea or belief is true because they want it to be true, commonly referred to in psychology as confirmation bias.[119]

## C.      THE INTERSECTION OF MODELS

The measurements of effectiveness significantly differ between the policing models. Community policing can be difficult to measure with its broad scope of initiatives whereas intelligence-led policing has more quantifiable outcomes to measure such as crime reduction and cost-effectiveness.[120] Community policing evaluations may be qualitative or subjective, often through the use of anecdotal evidence, surveys, and officer's self-assessments.[121] Analyzing trends of increased volunteerism or citizen participation may also be indicators of satisfaction and trust in police, or legitimacy.[122] As Skogan explains, "Measured accomplishments get attention and unmeasured accomplishments do not."[123] Therefore, with the great variance in expected benefits of community policing and the challenges of quantifying them, it is possible that a safer city receives more recognition and praise than a satisfied community.

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[117] James Comey, "The True Heart of American Law Enforcement" (presentation, International Association of Chiefs of Police Conference, San Diego, CA, October 16, 2016), https://www.fbi.gov/news/speeches/the-true-heart-of-american-law-enforcement.

[118] Mark Berman, "FBI Director: We Really Have No Idea If There's 'An Epidemic of Police Violence against Black People,'" *Washington Post,* October 17, 2016, https://www.washingtonpost.com/news/post-nation/wp/2016/10/17/fbi-director-we-really-have-no-idea-if-theres-an-epidemic-of-police-violence-against-black-people/.

[119] "What Is Confirmation Bias?," *Psychology Today,* accessed November 17, 2017, https://www.psychologytoday.com/blog/science-choice/201504/what-is-confirmation-bias.

[120] Ratcliffe, *Intelligence-Led Policing*, 2nd ed., 165–167.

[121] Geoffrey P. Alpert, Daniel Flynn, and Alex R. Piquero, "Effective Community Policing Performance Measures," *Justice Research and Policy* 3, no. 2 (2001): 81,85.

[122] Lorraine Mazerolle et al., "Legitimacy in Policing: A Systematic Review," *Campbell Systematic Reviews* 9, no. 1 (January 2, 2013): 14, http://campbellcollaboration.org/lib/project/141/; Sunshine and Tyler, "The Role of Procedural Justice and Legitimacy in Shaping Public Support for Policing."

[123] Skogan, "The Promise of Community Policing," 41.

Unlike community policing, intelligence-led policing is more likely to have measurable successes with crime reduction, particularly when focusing on prolific offenders.[124] With an emphasis on data analysis and the apprehension of serious and repeat offenders, it is easier to measure crime reduction following their arrests.[125] For example, in April 2013, the Fremont Police Department in California introduced an intelligence-led policing initiative, known as Operation Sentinel, to address the community crime issue of residential burglary.[126] Following the implementation of several intelligence-led policing strategies, including the identification of known burglars through informants, the reprioritzation of crime lab evidence, and the collection of community camera footage, the campaign showed great promise. After the first year of implementation, there was a 55 percent drop in residential burglary.[127] The residents expressed satisfaction with the police department's responsiveness to addressing the burglary problem.[128] Furthermore, the metrics of a reduced crime rate, numbers of arrests, and jail sentences were compelling evidence for a successful intelligence-led policing initiative.[129]

While the conceptual and operational differences between community policing and intelligence-led policing are clear, signifcant overlaps exist. This overlap is of great benefit to intelligence-led policing as it provides a base of citizens that may be more likely to partner with police due to the foundation of engagement often laid down by community policing.[130] In fact, Dr. David Carter asserts that "ILP [intelligence-led policing] is a new dimension of community policing, building on tactics and

[124] Lawrence W. Sherman et al., *Preventing Crime: What Works, What Doesn't, What's Promising. Research in Brief.* National Institute of Justice (Washington, DC: U.S. Department of Justice, 1998) https://eric.ed.gov/?id=ED423321.

[125] Ratcliffe, *Intelligence-Led Policing*, 2nd ed., 174.

[126] Richard Zemlok, "Fremont Police Department: Operation Sentinel" (presentation, Fremont Police Department, Fremont, CA, November 2015).

[127] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 96.

[128] Fremont Police Department Facebook Page, accessed November 3, 2017, https://www.facebook.com/FremontPoliceDepartment/posts/614421188627398.

[129] Zemlok, "Fremont Police Department: Operation Sentinel"; Ratcliffe, *Intelligence-Led Policing*, 2nd ed., 96.

[130] Carter, "Law Enforcement Intelligence," 40.

methodologies developed during years of community policing experimentation."[131] For example, while community policing has long relied on developing a rapport with citizens, intelligence-led policing may seek to expand on these relationships to obtain information and feed the intelligence analysis process. In turn, the police may convey specific threats to the public, whose help may prevent crime and terrorist attacks.[132] These connections provide direct access to information in the areas of crime and terrorism.[133]

Carter establishes several domains of overlap within the policing models. A few examples include the need for information management, whether its source is the community or internal analytical programs.[134] Data analysis is integral for both models.[135] The analysis may contribute to problem solving for the community or enrich intelligence critical for assessing threats and prolific offenders under the intelligence-led policing model.[136] Such problem solving is important to each model. Community policing requires it to reconcile community issues contributing to crime and intelligence-led policing engages in it to reconcile factors contributing to victimization, vulnerable locations, and offenders.[137]

Furthermore, policing, regardless of the model or philosophy, requires trust. Without trust, the police are ineffective and unlikely to accomplish their objectives with the citizenry.[138] Carter notes the model's reliance on the community. He says, "Like community policing, intelligence-led policing requires an investment of effort by all the components of the organization as well as the community … intelligence is an organization-wide responsibility that relies on a symbiotic relationship with residents."[139]

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[131] Carter, 41.

[132] Carter.

[133] Carter, 40.

[134] Carter, 41.

[135] Carter, 42.

[136] Carter.

[137] Carter.

[138] Tom R. Tyler, "Procedural Justice, Legitimacy, and the Effective Rule of Law," *University of Chicago Press* 30 (2003): 295; Tyler and Fagan, "Legitimacy and Cooperation," 233.

[139] Carter, "Law Enforcement Intelligence," 42.

Police departments, as well as intelligence analysis units, cannot operate well without the participation and the support of those they have sworn to serve and protect.

### D.      CONCLUSION

Ratcliffe suggests, "Defining policing frameworks can be like trying to nail jelly to a tree."[140] Policing frameworks can be difficult to understand. They are challenging to define and evaluate due to their overlap and often fluid interpretations. Despite areas of community policing that are foundational to intelligence-led policing, the significant distinctions and similarities between the two models are clear. While the need for building trust between the police and the community is paramount, intelligence-led policing may be leading the way into the future with its emphasis on data-driven analysis, further enhanced by steady and widespread advances in technology. Policing driven by analysis and intelligence has shown to be effective in solving crime.[141] When this practice also includes information sharing and engagement with the community, it has great potential to increase legitimacy, as it offers the benefits of crime reduction *and* community satisfaction.

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[140] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 66.

[141] Bureau of Justice Assistance, "Reducing Crime Through Intelligence-Led Policing" (U.S. Department of Justice, September 12, 2005), iii, https://www.ncirc.gov/documents/public/reducing_crime_through_ilp.pdf.

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# III. TECHNOLOGY

Citizens are playing a more active role than ever before in increasing their safety through personal technologies. Safety-enhancing measures are widespread and include some that interact directly with police and others that are solely for private use. For example, ownership of residential surveillance cameras is rapidly growing, and market researchers predict an increase of 49 percent by 2019.[142] Many of these owners will register their cameras with local police departments, identifying themselves as potential resources to provide video for criminal investigations. In 2016, the Pew Research Center reported that 77 percent of American adults own smartphones, allowing a majority of people to use their video-enabled phone to capture suspicious or criminal events if they choose.[143] Also, nearly nine in ten citizens are online, allowing significant access and use of community-focused social media platforms.[144] These sites, including Facebook, Twitter, and Nextdoor, are used for everything from sharing safety concerns with neighbors to reporting suspicious activity to the police. And finally, the use of personal safety applications, smartphone programs that use GPS locations, emergency contact numbers, alerts and alarms with the intent of keeping the user safe, are growing increasingly popular, particularly among the female college student demographic.[145] For example, "StaySafe" is a phone app that alerts an emergency contact with the GPS location when the phone owner does not arrive at a pre-determined location on time.[146]

Furthemore, citizens also benefit from law enforcement's recognition that social media is a powerful information-sharing platform. For example, police department

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[142] "Report: Video Surveillance Market to Reach $42B by 2019," Security Sales & Integration, May 15, 2014, http://www.securitysales.com/news/report_video_surveillance_market_to_reach_42b_by_2019/.

[143] Aaron Smith, "Record Shares of Americans Now Own Smartphones, Have Home Broadband," *Pew Research Center* (blog), January 12, 2017, http://www.pewresearch.org/fact-tank/2017/01/12/evolution-of-technology/.

[144] Smith.

[145] Lisa Heffernan, "Not Just Pepper Spray: Apps and Devices to Keep College Students Safe," NBC News, April 27, 2016, https://www.nbcnews.com/feature/college-game-plan/not-just-pepper-spray-apps-devices-keep-college-students-safe-n563356.

[146] "5 Personal Safety Apps That Watch Your Back," *PCWorld,* October 28, 2013, https://www.pcworld.com/article/2057930/5-personal-safety-apps-that-watch-your-back.html.

websites typically share web-based maps to illustrate crime in individual neighborhoods. Often, prospective residents view crime maps before moving into a particular area. Also, existing residents may evaluate crime fluctuations in their neighborhood.[147] Police websites also may feature maps displaying the residential locations of registered sex offenders. These sites often provide more information than the U.S. Department of Justice's site, which does not include photographs of the offenders. Law enforcement understands the importance of providing the community a means of awareness of registered sex offenders in proximity to their homes and local schools. These personal technologies and government resources can influence citizen involvement, awareness, and activity.

Despite the fast-paced growth of the technology market, some technologies are steadfast and integral to intelligence-led policing.[148] For example, geographic information systems (GIS) maps illustrate crime hot-spot locations and indicate to officers and citizens potential crime problem areas.[149] These maps are used internally by analysts and officers but are also often shared via police websites for the benefit of the community to increase their awareness of crime issues. Another important tool for intelligence-led policing is the automated license plate reader (ALPR) camera, which captures suspects' vehicle license plates and has become more and more vital to daily police investigations and intelligence collection.[150] Capturing license plates and determining the ownership of the vehicle at the time of a criminal incident is critical to identifying and apprehending the offender.[151] While these technologies are invaluable to intelligence-led policing, they are primarily used in-house and do not seek any collaboration with the community. However, the extensive use of community

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[147] "More Police Departments See the Benefits of Crime Map Technology," *NC4* (blog), accessed November 3, 2017, http://nc4.com/Pages/More-police-departments-see-the-benefits-of-crime-map-technology.aspx.

[148] Ratcliffe, *Intelligence-Led Policing,* 2nd ed.*,* 155.

[149] Ratcliffe, 105.

[150] Keith Gierlack, *License Plate Readers for Law Enforcement: Opportunities and Obstacles* (Santa Monica, CA: RAND, 2014), 10.

[151] Gierlack, 72.

surveillance cameras and social media are emerging as essential tools for the police and community to work together.

## A.    SURVEILLANCE CAMERAS

An increasingly important example of intelligence-led policing technology is a long-existing tool, yet with today's advances in technology is emerging as a critical asset to policing: surveillance cameras. Surveillance cameras have been around for decades, particularly in Britain, where they were first deployed in London in the 1960s.[152] They were first used to monitor crowd activity during street celebrations and shortly afterward to watch areas with crime flare-ups.[153] However, it was only after an Irish Republican Army bombing in 1993 that cameras became widespread throughout London, and the newly fortified city center became known as the "Ring of Steel."[154] While it initially consisted of road barriers, checkpoints, and closed-circuit television (CCTV) cameras, the Ring of Steel has evolved into a contemporary city of defense.[155] Planners call this "fortress urbanism," and London is now a city of ubiquitous surveillance cameras, sentry points, vehicle-blocking bollards, and far fewer streets providing access to the city center.[156]

Since 9/11, Manhattan, too, has strengthened its security with surveillance cameras and now has over 9,000 cameras in downtown streets and subways.[157] Surveillance cameras are reportedly capturing the average New Yorker's image

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[152] "History of CCTV in England," Not Bored, accessed July 7, 2017, http://www.notbored.org/england-history.html.

[153] Not Bored.

[154] Not Bored.

[155] "Ring of Steel," *Mas Context* (blog), June 25, 2014, http://www.mascontext.com/issues/22-surveillance-summer-14/ring-of-steel/.

[156] *Mas Context.*

[157] "NYPD: Ready for War with ISIS Terrorists," ABC News, July 1, 2016, http://abcnews.go.com/US/nypd-ready-war-isis-terrorists/story?id=40259672.

approximately 70 times a day.[158] Government-owned and operated cameras are meant to deter crime and assist in the investigations of crime by capturing suspects and their vehicles.[159] Cameras facilitate the collection and analysis of data on criminals and high-crime areas, allowing police to better direct resources and impact crime.[160] Furthermore, a 2013 survey of 1,000 American adults showed support for the use of surveillance cameras in public spaces.[161]

Privately owned cameras have great potential for crime reduction. For instance, a front porch camera installation may provide an image of a package thief or a roving residential burglary crew. Private surveillance cameras may also capture a full or partial license plate of a fleeing criminal from a residential crime. Cameras can also trigger alerts notifying homeowners when a person is approaching their home access points. There are countless examples of private cameras directly contributing to the apprehension of criminals by police through national media reports. A municipal police department in New Jersey reported a successful outcome after a 78-year-old resident had been robbed at knifepoint. The local police arrested a suspect following the review of residential camera footage capturing the crime, which was volunteered by a citizen.[162] The police had no leads on this violent crime until the footage was provided.[163] Another incident receiving nationwide attention occurred in Germantown, Pennsylvania. A 22-year old woman was

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[158] Bryan Schonfeld, "Expand NYC's Surveillance Camera Network," *NY Daily News,* accessed July 7, 2017, http://www.nydailynews.com/opinion/bryan-schonfeld-expand-nyc-surveillance-camera-network-article-1.2117122; Dean E. Murphy, "As Security Cameras Sprout, Someone's Always Watching," *New York Times*, September 29, 2002, sec. U.S., https://www.nytimes.com/2002/09/29/us/as-security-cameras-sprout-someone-s-always-watching.html.

[159] Nancy LaVigne, "Using Public Surveillance Systems for Crime Control and Prevention," U.S. Department of Justice, Office of Community Oriented Policing Services, accessed October 7, 2017, https://ric-zai-inc.com/Publications/cops-p211-pub.pdf.

[160] "DC Surveillance Cameras Become Top Crime-Fighting Tools for Police," *Washington Times,* accessed November 4, 2017, //www.washingtontimes.com/news/2013/jun/30/dc-surveillance-cameras-become-top-crime-fighting-/.

[161] "70% Favor Use of Surveillance Cameras in Public Places," Rasmussen Reports, accessed September 26, 2017, http://www.rasmussenreports.com/public_content/politics/general_politics/april_2013/70_favor_use_of_surveillance_cameras_in_public_places.

[162] Chris Franklin, "Police Now Using Residential Cameras to Help Solve Crimes in This One Town," NJ.com, accessed September 23, 2017, http://www.nj.com/camden/index.ssf/2017/09/report_says_police_in_winslow_twp_create_camera_re.html.

[163] Franklin.

abducted from the sidewalk while walking home at night. The adjacent supermarket surveillance camera, and later determined other camera sources, caught the crime on tape and was crucial to solving this case.[164] The victim was found alive and well after a three-day multiagency search for the victim and suspect. The suspect had an extremely violent prior criminal history and was sentenced to 35-years in prison for this kidnapping.[165] The surveillance video was critical in positively resolving both crimes.

The affordability and usability of surveillance cameras has contributed to the phenomenal growth of privately owned cameras systems operated by neighborhood groups, homeowners' associations, and individual residents. Use of surveillance cameras continues to increase year after year in both the public and private domains.[166] The market is continually expanding and cameras are as popular as ever with their ease of use and economical price tag. What were once expensive novelties are now becoming more and more common in residential households in the United States. Market research estimated in 2014 that one in eight households with broadband Internet had security cameras.[167] However, with sales projected to climb due to the affordability and easy integration with other smart safety features in homes, the ratio is likely higher today.[168] Cameras are forecast to flourish as they become integral to the development of new homes with continued advances in smart-home technology and the connection to the "Internet of things."[169] People install cameras to keep their loved ones safe, to secure their properties, and to have a general sense of what is occurring in and around their

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[164] "Woman Whose Abduction Was Captured on Video Found Safe in Maryland," ABC News, accessed September 26, 2017, http://abc13.com/news/woman-whose-abduction-was-captured-on-video-found-safe-in-maryland/382650/.

[165] "Germantown Abductor Gets 35 Years in Prison," NBC News, accessed September 26, 2017, http://www.nbcphiladelphia.com/news/local/Germantown-Abductor-Sentencing-Carlesha-Freeland-Gaither-Delvin-Barnes-Philadelphia-Kidnapping-Caught-on-Cam-385079341.html.

[166] "State of the Market: Video Surveillance 2017," *SDM Magazine*, accessed November 4, 2017, https://www.sdmmag.com/articles/93511-state-of-the-market-video-surveillance-2017.

[167] "Percentage of Households with Security Cameras," *Security System Zone* (blog), April 5, 2017, https://securitysystemzone.com/percentage-of-households-with-security-cameras.

[168] "State of the Market: Video Surveillance 2014," *SDM Magazine*, accessed October 16, 2017, https://www.sdmmag.com/articles/89989-state-of-the-market-video-surveillance-2014.

[169] Tony Danova, "The Connected Home Report: Forecasts and Growth Trends for One of the Top 'Internet of Things' Markets," *Business Insider,* accessed September 26, 2017, http://www.businessinsider.com/connected-home-forecasts-and-growth-2014-9.

home environments. Cameras often provide an increased perception of safety and a sense of control-taking precautions against being victimized.[170]

Many police departments across the country have created community camera registry programs in response to the widespread adoption of privately owned security cameras. From small-town Tiburon, California, to urban Oakland, California, cities are actively promoting cameras as a method of engagement and security among their citizens.[171] While the statistical estimates of camera-equipped homes are unclear, there are a vastly growing number of police departments across the country with registry programs.

Most camera registry programs include three main features. First, direct access by police is not available to personally owned cameras or video footage.[172] Second, the registration of cameras is strictly voluntary and the resident is under no obligation to provide the video to police if asked.[173] However, it is possible that if a resident chooses not to share it, and the officer believes it contains evidence of a felony, this officer may pursue a warrant with the court to obtain the footage. Third, once a citizen registers their home address and contact information online, they may be contacted if there is a crime in the area.[174] The citizen then decides whether to participate further by voluntarily contributing requested video footage but is under no obligation to do so.[175] The benefit comes from the ability of police to reach out to citizens who may have unwittingly captured a crime in their neighborhood on video.[176] This footage may lead to the

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[170] LaVigne, "Using Public Surveillance Systems for Crime Control and Prevention," 9.

[171] "Citizens' View Security Camera Program," Tiburon by the Bay, accessed October 7, 2017, http://www.townoftiburon.org/261/Citizens-View-Security-Camera-Program; "Baltimore's Community Camera System," Citiwatch, accessed January 29, 2017, https://citiwatch.baltimorecity.gov/_layouts/ CitiWatch/Default.aspx.

[172] "Security Camera Community Registration Program Overview," Fera World, accessed October 7, 2017, https://www.cctvcameraworld.com/security-camera-registration-programs.html.

[173] CCTV Camera World, accessed September 23, 2017.

[174] CCTV Camera World.

[175] CCTV Camera World.

[176] Tiburon by the Bay, "Citizens' View Security Camera Program."

apprehension and prosecution of suspects or be stored and analyzed later to assist in other or future investigations.

Residents appear to be taking camera ownership one proactive step further beyond the registry. Due to an increase in crime and the rise and feasibility of camera ownership, a group of neighbors in Oakland, California, created a neighborhood-wide surveillance system known as "Neighborhood Guard," a nonprofit that assists residents to establish and operate their own camera systems.[177] With a focus on community and technology, the group founder, Jesper Jurcenoks, established the first neighborhood system in 2012. In his first collaborative neighborhood deployment, cameras covered the entrance and exit points for 88 homes.[178] Association members paid a start-up fee and subsequent annual service costs.[179] The organization now offers financial aid to residents, waiving fees when applicable, to insure that concerned owners are not kept from contributing to their community's safety.[180]

While privacy concerns exist, neighbors say that the high crime rate in Oakland, and the fear of victimization it invokes, outweighs the concerns.[181] Communities decide for themselves how long to store images, which members have access, and in which situations they will share video footage with the police department.[182] Community members have adopted a general rule that requires a police report before sharing footage with fellow residents.[183] The police department is fully supportive of this group. Public Information Officer Johnna Watson says, "The Oakland Police Department recognizes and supports our community's decision to purchase surveillance systems," noting that the

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[177] Will Kane, "Oakland Neighbors Increasingly Use Surveillance for Security," SFGate, March 3, 2014, http://www.sfgate.com/crime/article/Oakland-neighbors-increasingly-use-surveillance-5283148.php.

[178] Kane.

[179] Kane.

[180] "Financial Aid Program Announcement," Neighborhood Guard, September 24, 2014, http://neighborhoodguard.org/financial-aid-program-announcement/.

[181] Kane, "Oakland Neighbors Increasingly Use Surveillance for Security."

[182] Kane.

[183] Kane.

cameras can "help us solve crimes."[184] The mayor is most appreciative that residents are not just looking out for themselves but making a "collective effort" to keep people safe.[185]

While there are no known public studies yet indicating a decrease of crime in these surveilled neighborhoods, there are many articles with anecdotal evidence. In January 2017, police were able to review images from a resident's camera after an 81-year old woman was shot in her home. The pictures were shared among officers and the suspects were quickly identified.[186] This completely volunteer-driven organization is impacting neighborhoods one at a time to bring residents together to increase safety through the use of technology.

Similarly, Baltimore, Maryland, residents created neighborhood watch teams to assist homeowners to acquire affordable cameras and strategically position them throughout the area. The teams have been responsible for establishing over 100 cameras throughout various communities in Baltimore since the inception of the program.[187] Consequently, the city reports these cameras have had a significant impact on local crime.[188] The Urban Institute studied surveillance cameras in Baltimore as well as several other large cities. Although they were city-owned, they operated in high-crime residential neighborhoods. The estimated crime reduction in some neighborhoods was just over 10 percent and as high as 35 percent in others.[189]

Local governments recognize the value of privately owned surveillance cameras in the role of public safety and are trying to increase ownership. In Washington, DC, the Office of Victim Services and Justice Grants highly encourages residents to install

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[184] Kane.

[185] Kane.

[186] Kane.

[187] "City Installs 12 New Crime Cameras in Baltimore," WBAL, December 21, 2012, http://www.wbaltv.com/article/city-installs-12-new-crime-cameras-in-baltimore-1/7078288.

[188] "City Installs 12 New Crime Cameras in Baltimore."

[189] Nancy G. La Vigne et al., "Evaluating the Use of Public Surveillance Cameras for Crime Control and Prevention," Urban Institute, June 4, 2016, https://www.urban.org/research/publication/evaluating-use-public-surveillance-cameras-crime-control-and-prevention.

security cameras and to register them with the police department.[190] The government has enabled residents to participate in one of two ways. The first option is a rebate system offering $200–$500 per residence for installing a security system and registering it with the police. The second option is a free system through a voucher program if the homeowner or tenant is on public assistance.[191] Similarly, Washington, DC's Office of Aging offers qualifying senior citizens and persons with disabilities free camera systems to promote safety and crime deterrence.[192] Both programs allow vulnerable populations widespread access to participate in personal and public safety to those who may have been excluded from participation due to economic barriers.

Recognizing increased camera ownership and consumer demands, some private companies have also offered registration services as well as public safety partnership platforms. For example, Motorola Solutions provides public safety solutions to include a website called CrimeReports.[193] CrimeReports offers private camera registration and anonymous crime tipping, but the greatest value may come from their partnership with police agencies to acquire their crime report data. Public safety solutions, such as CrimeReports, allow for crime mapping outside of one's geographic region, depending on which agencies choose to participate. These services are also available on a mobile app, thus making user access as easy as ever.[194]

A similar company is PubliCam, a joint public–private initiative that asks citizens to list their surveillance cameras on local police registry websites. PubliCam provides a visual mapping platform that illustrates the location of neighborhood cameras and assists the police in contacting camera owners for video requests following a crime. The

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[190] "Private Security Camera System Incentive Program," Office of Victim Services and Justice Grants, accessed September 24, 2017, https://ovsjg.dc.gov/service/private-security-camera-system-incentive-program.

[191] Office of Victim Services and Justice Grants.

[192] "Safe at Home," District of Columbia Office of Aging, accessed September 24, 2017, https://dcoa.dc.gov/safe-home.

[193] "CrimeReports," Motorola Solutions, accessed September 26, 2017, https://www.motorolasolutions.com/en_us/products/smart-public-safety-solutions/community-engagement/crimereports.html#tabproductinfo.

[194] Motorola Solutions.

organization's communication platform allows law enforcement to email or text the owners through a location-based group or individually.[195] These companies offer services that facilitate and complement police department's efforts to serve community safety through inclusiveness and technology.

Neighborhood groups often share their experiences and lessons learned with other groups. From selecting the right camera equipment to increasing crime and safety awareness among their fellow neighbors, these groups have valuable insight and experience that may benefit others. After extensive consultations with the police department and widespread camera implementation, the Scott Creek Neighborhood Association in Fremont, California, shared its positive experiences with other community members.[196] The association offers advice on technical aspects such as camera specifications for quality image capturing and the best angles for camera installation.[197] Other essential lessons include how to coordinate with neighbors and encourage the use of email "listservs" to share information among users. The association's efforts and information sharing with other local groups have galvanized other residential communities to install and register cameras with the police department. Not only did these efforts provide new opportunities for police and citizen interaction but the growth of neighborhood camera networks has directly contributed to the identification and apprehension of criminals.[198]

In August 2016, a residential burglary occurred inside a Fremont residence. The victimized family had both interior and exterior surveillance cameras. Detectives recognized one of the suspects from the video and several of his associates were later

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[195] "PubliCam—a Private Security Camera Registration Application," Officer, accessed September 24, 2017, //www.officer.com/investigations/video-cameras/product/12196470/publisafe-publicam-private-security-camera-registration-application.

[196] Sarah Ravani, "Peace Reigns in the Streets of Vigilant Fremont," *San Francisco Chronicle,* accessed August 28, 2017, http://www.sfchronicle.com/bayarea/article/Peace-reigns-in-the-streets-of-vigilant-Fremont-11319673.php.

[197] Ravani.

[198] Ravani.

identified.[199] Subsequently, a lengthy multi-agency investigation followed and the suspect was later arrested for Fremont's crime along with several other gang members.[200] The burglary was only one incident in a crime spree spanning multiple cities including numerous carjackings and armed home-invasion robberies.[201] This family's investment in a personal camera security system directly contributed to solving their own violent crime as well as disrupting an active, region-wide, and prolific violent criminal group.

In Fremont, the review of several years of residential burglary crime data has shown that cases with any video footage are 30 percent more likely to be solved than those with no associated video.[202] In addition, personal surveillance cameras contribute to the intelligence cycle and information sharing network. For example, a license plate captured by a residential camera may directly lead to the identification of a suspect vehicle. If it does not, the image remains in a networked system, accessible to officers and other neighboring police agencies. Officers are alerted via email or text by setting data alerts to be triggered when a listed license plate enters a designated area. And if the result of this flagged plate leads to an arrest it may, in fact, prevent future thefts in the targeted area.

Furthermore, community video enhances intelligence-led policing by providing opportunities to improve the efficiency of police operations and financial resources. In fact, the efficiencies of each are so intertwined they can be difficult to distinguish from one another. Cameras improve efficiency by conserving money often spent on personnel-intensive surveillance or patrols. Obtaining a video with suspect information provides a greater focus toward a patrol response or investigative next steps. For example, if a string of burglaries occurs in a particular neighborhood without video cameras, police may typically set up a nearby command van for a major surveillance effort and bring in additional officers on overtime. Either a covert operation or a visible saturation requires

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[199] "Alleged Richmond Gang Members Tied to Deadly East Bay Crime Spree," CBS News, accessed September 26, 2017, http://sanfrancisco.cbslocal.com/2017/08/30/violent-crime-spree-leads-to-arrests-of-alleged-richmond-gang-members/.

[200] CBS News.

[201] CBS News.

[202] Zemlok, "Fremont Police Department: Operation Sentinel."

extra officers, resources, and additional costs. However, if an identifiable image is captured, there is a specific direction for enforcement or investigation, and the additional efforts and augmented manpower likely become unnecessary. According to researcher Marilyn Petersen, "Law enforcement agencies with tight budgets and personnel reductions or shortages must use their available resources carefully, targeting individuals, locations, and operations that promise the greatest results and the best chances for success."[203] The cooperation of citizens and sharing of their video footage significantly contribute to this endeavor of focused efficiency, both operationally and financially.

An earlier referenced study in Baltimore of surveillance cameras further supports cost efficiency. Again, the cameras were city-owned, but the benefit of crime reduction and savings of criminal justice costs were deemed worth the expense.[204] The researchers concluded that for every dollar the city spent, they saved $1.50.[205] In fact, not only does intelligence-led policing potentially improve the police department's bottom line; it has spared victims from great losses as well. For example, the Fremont Police Department's intelligence-led policing initiative to tackle residential burglary yielded interesting results beyond crime reduction. By focusing on prolific offenders, use of surveillance cameras, and other strategies, the department decreased the burglary rate by 60 percent.[206] A study of the financial loss incurred by residential burglary victims showed an approximate decrease from $7 million to $4.8 million.[207]

The increased ownership of surveillance cameras is creating new opportunities for law enforcement to collaborate with those they serve. According to Brian Jackson of the RAND Corporation, technologies create new pathways for police and the public to

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[203] Peterson, "Intelligence-Led Policing: The New Intelligence Architecture," 4.

[204] La Vigne et al., "Evaluating the Use of Public Surveillance Cameras for Crime Control and Prevention: A Summary."

[205] Urban Institute.

[206] Zemlok, "Fremont Police Department: Operation Sentinel."

[207] Betty Yu, "Fremont Police, Residents Credit Surveillance for Sharp Drop In Burglaries," CBS News, accessed September 26, 2017, http://sanfrancisco.cbslocal.com/2014/02/28/fremont-police-residents-credit-surveillance-for-sharp-drop-in-burglaries/; Zemlok, "Fremont Police Department: Operation Sentinel."

interact and communicate.[208] The use of private surveillance cameras is a significant means for the public to engage with the police and to promote their own safety. Furthermore, implementing a system and sharing this data can have a very positive effect on the neighborhood. This practice facilitates a dialogue and a partnership between the community and police. A by-product of this safety effort may be the building of trust as a common result of working together. While these partnerships sound very much like community policing, the proactive nature of partnership and the process of data collection via technology is put to use in a networked information environment to be analyzed and to determine future priorities, which are essential to the intelligence-led policing model.

## B.     SOCIAL MEDIA

The use of social media among American law enforcement is extensive. According to a 2013 study by the Bureau of Justice Statistics, 90 percent of local police departments serving 10,000 or more residents had their own website, and 80 percent used social media.[209] A 2015 survey by the IACP showed the most popular sites to include Facebook (94.2 percent) and Twitter (71.2 percent).[210] Furthermore, the IACP survey showed that of the responding agencies, 80 percent reported, "Social media has improved community relations in their jurisdiction."[211] The 2016 version of this survey reports, "Social media is used to improve community relations, gather intelligence, and shape emerging narratives."[212] The popularity of social media use by law enforcement and

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[208] Brian A. Jackson, *Strengthening Trust Between Police and the Public in an Era of Increasing Transparency* (Santa Monica, CA: RAND, 2015), 3, https://www.rand.org/content/dam/rand/pubs/testimonies/CT400/CT440/RAND_CT440.pdf.

[209] Brian A. Reaves, "Local Police Departments, 2013: Equipment and Technology," U.S. Department of Justice, Office of Justice Programs, July 2015, https://www.bjs.gov/content/pub/pdf/lpd13et.pdf.

[210] "2015 Social Media Survey Results," International Association of Chiefs of Police, accessed September 24, 2017, http://www.iacpsocialmedia.org/wp-content/uploads/2017/01/FULL-2015-Social-Media-Survey-Results.compressed.pdf.

[211] "International Association of Chiefs of Police."

[212] "2016 Law Enforcement Use of Social Media Survey," International Association of Chiefs of Police, accessed September 24, 2017, http://www.theiacp.org/Portals/0/documents/pdfs/2016-law-enforcement-use-of-social-media-survey.pdf.

citizens is facilitated by the virtual zero cost of the technology and no complex skillset required.[213]

The Office of Community Oriented Policing Services conducted an official after-action report following the demonstrations in August 2014 in Ferguson, Missouri. One of many valuable findings called for law enforcement to have social media strategies in place to serve the needs of the agency and community.[214] The committee recommended police leverage social media to improve a department's position in the community and foster better communication.[215] While the committee's focus was not on intelligence-led policing or crime reduction, rather it established goals and highlighted benefits of social media's role within a fractured community. One stated goal was "to establish a social media platform that builds trust with the community and encourages two-way communication between the police and the communities they serve."[216] Having a social media strategy facilitates communication and a presence, both physical and virtual, within the community that may prove invaluable in a time of a crisis.

Social media platforms are essential for information sharing and collaboration. As people have grown more technologically savvy and media-focused, sharing information with them is viewed as crucial to police operations.[217] Social media provides the opportunity for police to connect with the community, further police investigations, and promote crime prevention methods and information. For example, a social media platform like Facebook can be a strategic way for law enforcement to publicize and promote community programs and events as well as to provide the public information on criminal incidents or suspects.

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[213] Ines Mergel, *Social Media in the Public Sector: A Guide to Participation, Collaboration, and Transparency in the Networked World*, 1st ed. (San Francisco, CA: Jossey-Bass, 2012).

[214] "After-Action Assessment of the Police Response to the August 2014 Demonstrations in Ferguson, Missouri," 103, U.S. Department of Justice, Office of Community Oriented Policing Services, accessed September 24, 2017, https://ric-zai-inc.com/Publications/cops-p317-pub.pdf.

[215] U.S. Department of Justice, Office of Community Oriented Policing Services.

[216] U.S. Department of Justice, Office of Community Oriented Policing Services.

[217] Melissa Motschall and Liqun Cao, "An Analysis of the Public Relations Role of the Police Public Information Officer," *Police Quarterly* 5, no. 2 (2002): 152–80.

Furthermore, social media can be instrumental in providing real-time critical information such as shelter-in-place instructions, missing persons lookouts, or traffic updates.[218] Social media allows the citizenry to engage directly with the department, to gain information and exposure to police activities, and to know the leadership and other representatives of the department. While being familiar with the neighborhood's officers is a classic objective of community policing, the opportunities through social media can and should facilitate future exchanges of crime information between both the police and the citizens. This direct and unfiltered information can be analyzed and developed into actionable intelligence to support the objectives of intelligence-led policing.

Social media changes the traditional one-sided relationship with the media as a way to get law enforcement's message out.[219] With the adoption of micro-blogging platforms such as Twitter, police now have a two-way communication tool, which provides direct and unfiltered information sharing with the public.[220] Police can cut out the media middlemen and potentially eliminate any bias or angle that may influence the message or news story. Research suggests that social media tools provide police opportunities to create more relationships with residents and contribute to new cultures of openness.[221] By speaking out openly via social platforms, people can come together to promote social good and influence their community.[222] As citizens become more inclined to share information with the police, either in person or via social media, police have more data for analysis to affect the community positively.

As social media use has shown to be an important tool to engage with citizens, one important question raised is whether it increases perceived police legitimacy. Although

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218 Stephan G. Grimmelikhuijsen and Albert J. Meijer, "Does Twitter Increase Perceived Police Legitimacy?," *Public Administration Review* 75, no. 4 (July 1, 2015): 598, https://doi.org/10.1111/puar.12378.

219 Thomas Heverin and Lisl Zach, "Twitter for City Police Department Information Sharing," *Proceedings of the American Society for Information Science and Technology* 47, no. 1 (November 1, 2010): 1, https://doi.org/10.1002/meet.14504701277.

220 Heverin and Zach, "Twitter for City Police Department Information Sharing."

221 John C. Bertot, Paul T. Jaeger, and Justin M. Grimes, "Using ICTs to Create a Culture of Transparency: E-Government and Social Media as Openness and Anti-Corruption Tools for Societies," *Government Information Quarterly* 27, no. 3 (2010): 267.

222 Bertot, Jaeger, and Grimes, 268.

somewhat limited, findings show that a direct platform with the community used in a transparent and reciprocal manner can, in fact, increase police legitimacy.[223] As law enforcement can shape and convey their narrative, their social media posts often communicate police effectiveness and positive outcomes. For example, the Fremont Police Department frequently posts solicitations for citizen information related to crimes, but also provides resolution by announcing outcomes of criminal investigations. They also announce via social media posts announcements of drunk driving checkpoints and other community safety efforts. Community announcements notify residents of opportunities to get involved as well as provide awareness of a variety of police efforts. Perceived effectiveness is important in strengthening perceptions of legitimacy.[224]

Furthermore, research suggests that police use of social media demonstrates a modernism and ability to be in touch with the community.[225] When tools such as social media offer opportunities for transparency and participation, it is good for legitimacy.[226] As mentioned earlier, strong perceptions of legitimacy are crucial for communities and police for trusting partnerships to flourish. These partnerships foster benefits and outcomes such as collaboration and crime reduction.

The volume, variety, and scope of social media sites continue to grow. They provide opportunities for "interpersonal, participatory, and interactive communications."[227] Some serve as great modes of mutually direct communication, such as Facebook, while others primarily serve and are used by the community, such as Nextdoor. Sites may also be used by law enforcement as investigative and intelligence resources, very much like informants or concerned neighbors in the community.

The website Nextdoor is growing in reach and popularity as it connects residents within geographical neighborhood boundaries. With over ten million users in an estimated 100,000 U.S. neighborhoods and more than 2,000 public agency partnerships,

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[223] Grimmelikhuijsen and Meijer, "Does Twitter Increase Perceived Police Legitimacy?," 598.

[224] Grimmelikhuijsen and Meijer, 604.

[225] Grimmelikhuijsen and Meijer, 604.

[226] Grimmelikhuijsen and Meijer, 605.

[227] Heverin and Zach, "Twitter for City Police Department Information Sharing," 1.

Nextdoor has great potential to connect neighbors with information and services.[228] Neighbors use forums to sell goods, offer services or suggestions, and often discuss city services and local politics. There is also a crime and safety section whereby users frequently post announcements or photos. For example, users commonly post images captured by their front porch surveillance cameras of thieves taking packages off porches and additional incident details, which garners a very enthusiastic response from neighbors. These posts allow neighbors to "be on the lookout" for suspicious activity, provide information that may bolster efforts to securitize their surroundings, and develop a sense of "neighborliness" made clear by posts of gratitude and sentiments of "we're in this together."

In this author's San Francisco, California, neighborhood, there were dozens of replies to a neighbor seeking advice for how to choose and install the best personal surveillance camera system.[229] Neighbors were eager to share their experiences and offer advice—some even suggested meeting in person to assist with installation.[230] No participants raised objections to concerns of privacy due to the technology. These social media platforms are offering new and incredibly opportunistic pathways for neighbors to come together to play an integral role in the safety and security of their neighborhood.

Facebook is another communication tool used by the community, which supports intelligence-led policing through the contribution of tips, leads, and other information from residents. Facebook's platform provides a simple way for police to publish a photograph and accompanying data for the community to provide tips or information directly to the police. Citizen users may respond directly through the site, contact a posted tip line, or notify the police case agent via the contact details provided in the post. A likely scenario would be the posting of a picture of an unknown suspect or vehicle

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[228] "Nextdoor—a Private, Localized Social Network—Is Now Used in over 100,000 U.S. Neighborhoods," The Verge, accessed July 22, 2017, https://www.theverge.com/2016/6/23/12005456/ nextdoor-100000-neighborhood-social-network-app-changes-business-plan-expansion; "Join the Free Private Social Network for Your Neighborhood," Nextdoor, accessed July 22, 2017, https://help.nextdoor.com/.

[229] "Outdoor Security Recommendations / Experience with Arlo," Nextdoor, March 10, 2017, https://miralomapark.nextdoor.com/news_feed/?post=44690774.

[230] Nextdoor.

captured by surveillance cameras. Ideally, the post elicits a community response to determine the identification or whereabouts of the person or vehicle in question.

Intelligence-led policing's objective of identifying prolific or serious offenders may also be accomplished through Facebook when used exclusively by analysts and investigators. In fact, reports show that 81 percent of surveyed law enforcement respondents use Facebook as part of their investigation.[231] Many criminal investigations have revealed that suspects post incriminating activity and behaviors on their public Facebook profile. For example, a suspect may post a picture boasting of committing a robbery while wearing the same or similar clothing as reported by witnesses to police. Facebook posts may also identify a geographic location suggesting the suspect was in the vicinity of the crime.

Another key intelligence contribution is the analysis of a subject's "friend network," reviewing and researching persons directly connected to the subject of interest to further understand the nature of relationships. Also, it is common for a gang member or criminal to be frequently pictured with relevant or other possibly involved subjects. Or, other relevant persons may frequently comment on a subject's post, suggesting a closeness or association of subjects. Determining these associations and connections can be critical in identifying a criminal organization or ascertaining additional potential suspects for investigation.

Taking investigative and intelligence techniques further, some investigators and analysts exploit Facebook information by creating fictitious Facebook profiles, allowing police to "friend" a person of investigative interest. Once the friend request is accepted, the investigator has unfettered access to the pictures, posts, and comments on the subject. Furthermore, the entire family and friend network is revealed and may assist in the determination of a possible criminal network.[232] These same techniques may also be applied to locate missing persons or subjects that may be vulnerable to harm or

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[231] LexisNexis, *Survey of Law Enforcement Personnel and Their Use of Social Media,* accessed September 24, 2017, https://www.lexisnexis.com/risk/downloads/whitepaper/2014-social-media-use-in-law-enforcement.pdf.

[232] Ratcliffe, *Intelligence-Led Policing*, 2nd ed., 153.

victimization. Notably, many law enforcement agencies find this covert activity unacceptable and have policies against it. Moreover, it is a violation of Facebook's user policy to create alias profiles or use any false identifying information.[233] So while it can be a very effective investigative and intelligence collection tool, it may likely be perceived as a contradiction of transparency.

Surveys of social media use by law enforcement support the benefits and successes of incorporating social media into daily practices. LexisNexis is a public information and research company of data and analytics.[234] In 2014, their survey of social media use in law enforcement reinforced a key insight—that intelligence gleaned from social media can be critical to solving and preventing crime.[235] Respondents revealed real-world examples of stopping active shooters, disrupting threats or acts against students, and tracking gang activity.[236] Other examples include underage runaways found based on their Facebook "check-in" to a location or the ability to identify suspects by looking at "friends of friends."[237] Eighty-one percent of police respondents claimed to use Facebook as an investigative tool and that figure is projected to rise as the scope and volume of users increases.[238]

## C.     CONCLUSION

Research and practice show that technology has and will continue to transform law enforcement and, more specifically, intelligence-led policing.[239] Surveillance cameras are critical to investigations and intelligence and directly contribute to the apprehension of offenders and crime reduction. The affordability and ease of use, as well as the promotion by the police department, encourages camera use by the community.

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[233] "Terms of Service," Facebook, accessed September 27, 2017, https://www.facebook.com/legal/terms.

[234] "LexisNexis: Overview," LinkedIn, accessed September 24, 2017, https://www.linkedin.com/company/2206/.

[235] LexisNexis, *Survey of Law Enforcement Personnel and Their Use of Social Media.*

[236] LexisNexis.

[237] LexisNexis.

[238] LexisNexis.

[239] Ratcliffe, *Intelligence-Led Policing*, 2nd ed., 155.

Successes in crime reduction and as a means to building relationships are solidifying the value of camera technology. Furthermore, these opportunities to participate, coupled with community successes, are often communicated over social media. Social media has become essential as a bridge with the community to enhance information sharing and potentially increase the good standing of the police department in the eyes of the community.[240] Social media platforms and data captured by private surveillance systems have become and continue to be integral to police investigative practices and the analysis of criminal intelligence.

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[240] Grimmelikhuijsen and Meijer, "Does Twitter Increase Perceived Police Legitimacy?"

# IV.  ANALYSIS AND CONCLUSIONS

I embarked on this thesis project with a few preconceived notions and expectations—primarily that community policing is a feel good philosophy, a popular and positive approach to policing within a community whereas intelligence-led policing is a model using just the facts in getting the job done. For the most part, research supports both of these notions; community policing can be very inclusive of and responsive to its residents and aims to increase the perception of police legitimacy while intelligence-led policing can be very effective in preventing and reducing crime based on objective analysis and intelligence.[241] As the manager of the criminal intelligence and analysis unit and former analyst for a local police department that very much embraces and engages its community, yet also strongly emphasizes analysis in its practice of intelligence-led policing, I have observed many successes and outcomes. I have seen the benefits of both policing models—from intense community support when two of our officers were shot in the line of duty to successful crime reduction initiatives positively impacting our residents. Community policing and intelligence-led policing do not need to be mutually exclusive.

## A.  THE POLICING MODELS

Researching intelligence-led policing, particularly through a framework of popular technologies and community participation, revealed some unforeseen and very important benefits. I believe intelligence-led policing has the unexpected potential to create meaningful and collaborative relationships with the community, foster more democratic communities, and most surprisingly, enhance police legitimacy. The building of positive and cooperative relationships between law enforcement and the community is typically associated with and is fundamental to the community policing model.[242] Therefore, some might argue that relationship-building is germane to community policing and has little to do with the analytically based, technologically focused model of

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241 Ratcliffe, *Intelligence-Led Policing*, 2nd ed.

242 Ratcliffe, 61.

intelligence-led policing. However, two-way communication over social media sites and residential surveillance programs provide the opportunities for police and neighbors to collaborate and improve their relationships.

While community policing may be challenging to define and evaluate, there is certainly great value and importance to building strong relationships with the community, no matter which models or methods accomplish this. Skogan explains that many researchers are skeptical of community policing and its critics claim the model is merely rhetoric.[243] While he asserts there is more to it than rhetoric, he also suggests that community policing is faltering.[244] He expresses a balanced view when he explains the results of his research: "There are ample examples of failed experiments and cities where the concept has gone awry. On the other hand, there is evidence in many evaluations that a public hungry for attention have a great deal to tell police and are grateful for the opportunity to do so."[245] In other words, community policing may not be truly effective, but to some communities, the opportunity to express themselves to the police remains invaluable.

This variety of outcomes reinforces my belief that while community policing may give voice to some residents, it may not always be the most equitable policing model and, therefore, not wholly conducive to relationship building. In fact, in reference to the findings in Skogan's evaluation of a community policing study in Houston, Texas, he illustrates an imbalance of results. He explains that lower income neighborhoods were not as aware of and less likely to participate in partnership programs.[246] He says, "For the positive effects of the programs [neighborhood crime prevention teams and home visits] in both areas were confined to whites and homeowners."[247] On the other hand, intelligence-led policing can provide balance through its use of objective data-analysis and opportunities of bringing residents together through technology. I have witnessed my department's successes using

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[243] Skogan, "The Impact of Community Policing on Neighborhood Residents: A Cross-Site Analysis," 179.

[244] Skogan, 180.

[245] Skogan, 180.

[246] Skogan, 179.

[247] Skogan, 179.

intelligence-led policing to combat crime problems by building strategies based on in-depth analysis, sharing criminal intelligence, and focusing on the most serious offenders in the area. These strategies were augmented through the inclusiveness and cooperation of community members as they put their technologies to use—particularly surveillance cameras—in assisting police investigative and information-sharing practices.

The idea of combining the crime-reducing results of intelligence-led policing with the legitimacy goals and community engagement of community policing, which my research and experience in Fremont also supports, was captured with the term "community intelligence-led policing" in a 2009 research article by Martin Innes et al.[248] I suggest a revision of this term to put the primary emphasis on intelligence-led policing with the enhanced benefits of collaborating with the community capitalizing on technology as "community-enhanced intelligence-led policing."

Community-enhanced intelligence-led policing enables new opportunities for community participation through the use of personal technologies and relies on data derived in part from information that citizens have the right to share or deny. However, in my experience, most camera owners do not withhold the information; rather, they choose to participate with law enforcement feeling their actions make a difference. They want to provide it because they take ownership in securing their surroundings and their neighborhoods. Citizens want to cooperate so the police can apply their expertise to make the information count by providing analysis and policing techniques, tactics, and procedures to apprehend an offender. Working together may very well provide the resident a sense of justice from the arrest of a violent encounter or the return of valuable personal property. Feeling their actions make a difference empowers citizens. Like the police, community members desire to have an influence on crime reduction and deterrence as well as to build partnerships.

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[248] Innes et al., "Seeing Like a Citizen.'"

## B.    SURVEILLANCE CAMERAS AND SOCIAL MEDIA PLATFORMS

Technologies act as a bridge between the police and public by facilitating mutual interaction and communication.[249] Privately owned surveillance cameras play a significant role for the public to engage with the police and to enhance their safety.[250] Moreover, implementing a system to share this data can have a very positive effect on the neighborhood through potential crime reduction and relationship building.[251] Police use of surveillance cameras becomes much more dynamic when used beyond investigations, rather as a tool to engage the community and contribute to the intelligence cycle. The law enforcement credo "to protect and to serve" means that the collection of information is done expressly for that purpose: to keep public order, to provide equitable services to the community, and to identify the factors and individuals that contribute negatively to that purpose.

According to a RAND report on policing, improvements in technology improve more than just policing practices; they provide people a role in their communities.[252] They explain, "The great majority of technology that is revolutionizing policing is also revolutionizing daily life for ordinary Americans."[253] From personal banking and reuniting with old friends to civic engagement and crime fighting, people are finding more ways to change and enhance standard practices. On a daily basis, most citizens use social media apps, GIS maps, and video-enabled smartphones. Access to these technologies empowers people to have a more active experience in tackling crime and keeping themselves safe.[254] Citizens can be increasingly proactive in defeating crime

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[249] Jackson, *Strengthening Trust.*

[250] Gregory F. Treverton et al., *Moving toward the Future of Policing*, RAND Corporation Monograph Series MG1102 (Santa Monica, CA: RAND, National Security Research Division, 2011), 81, https://www.rand.org/pubs/monographs/MG1102.readonline.html.

[251] Citiwatch, "Baltimore's Community Camera System"; "Neighborhood Guard Footage Leads to Quick Arrest," Neighborhood Guard, February 7, 2014, http://neighborhoodguard.org/financial-aid-program-announcement/.

[252] Jackson, *Strengthening Trust*, 3.

[253] Treverton et al., *Moving toward the Future of Policing*, 84.

[254] Treverton et al., 84.

through the use of technology.[255] Beyond surveillance cameras, individuals can leverage their technologies, such as laptops, to assist police. For example, a woman who had her laptop stolen enabled her webcam to capture an image of the suspect as he was using her computer.[256] Victims of phone theft frequently enable their "find my iPhone" app to track the location of the phone and the suspect before notifying police.[257] These opportunities did not exist a decade or more ago.

Police officers are typically reluctant to share intelligence with others.[258] This can be due to a concern for the sensitivity of the information, fear of jeopardizing investigations, or selfishness in hoarding information.[259] Therefore, it seems police would then be even more unlikely to share sensitive information with the public. Ratcliffe suggests that keepers of intelligence in police agencies are historically reluctant to share this information with colleagues, even police officers, if they are outside their units.[260] If this is true, how likely is it they will engage with their communities to prevent crime? Ratcliffe states, "The flow of information to the public is always the first sacrificed."[261] However, if the return on investment is good enough, there may be an incentive to break down the longstanding law enforcement silos and engage not necessarily the public at large, but civic-minded tech-enabled citizens with information to assist in targeted investigations or general crime reduction. In fact, unique opportunities exist to include the community through the use of their surveillance cameras and the sharing of police intelligence. The innovation lies in police sharing actionable crime intelligence with the community and defining role expectations, potential outcomes, and subsequent feedback based on citizen participation. Through the use of ALPR technology, an impactful and

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[255] Treverton et al., 84.

[256] Treverton et al.

[257] Ian Lovett, "When Hitting 'Find My iPhone' Takes You to a Thief's Doorstep," *New York Times*, May 3, 2014, sec. U.S., https://www.nytimes.com/2014/05/04/us/when-hitting-find-my-iphone-takes-you-to-a-thiefs-doorstep.html.

[258] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 114.

[259] "Technology Isn't the (biggest) Problem for Information Sharing in Law Enforcement," PoliceOne, accessed October 13, 2017, https://www.policeone.com/police-products/communications/articles/1816539-Technology-isnt-the-biggest-problem-for-information-sharing-in-law-enforcement/.

[260] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 114.

[261] Ratcliffe, 114.

powerful tool for effective law enforcement, deployed nationwide to improve public safety, police can buck tradition and move beyond its exclusive use in the law enforcement domain by drawing in the camera owners in the community.[262]

Police agencies may create, access, or maintain lists of any variety of vehicles of interest. These are widely known as hot lists and typically consist of license plate numbers of stolen vehicles and those associated to potential terrorist related activities or criminal incidents.[263] Hypothetically, the police department could expand their hot lists to license plates of particular local suspicious activity, such as known burglars, recent suspects of violent crimes, or even persons with restraining orders. While the following example has not been done to the author's knowledge, the hot list could be uploaded to a server that connects to a neighborhood's camera network. When a suspect vehicle passes the neighborhood camera, the plate is read and would trigger an alert for local law enforcement. The police would predetermine if this alert should be shared with the community involved. For example, if a neighborhood is experiencing a high volume of residential burglaries, and a suspect has a warrant for the crime of burglary, the community may be notified, allowing it to be more vigilant against suspicious activity in the neighborhood. In addition, upon receiving an alert, the officers would be dispatched to the area for potential enforcement. As unorthodox as it seems, collaborating with the residents in this process could increase police capabilities and community safety, as well as fueling residents' feelings of empowerment. This innovation would be extremely advantageous for intelligence gathering, potential crime reduction, and the apprehension of prolific offenders. Sharing police hot list data to residential camera networks might also extend to finding missing or at-risk persons or the elderly. Furthermore, this innovation entrusts and counts on engaged and motivated residents to work with the police in creating positive outcomes in their community.

If law enforcement takes this giant leap of sharing actionable intelligence with the community, they must also make the protection of privacy rights of the citizen a top

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[262] David J. Roberts and Meghann Casanova, "Automated License Plate Recognition Systems: Policy and Operational Guidance for Law Enforcement" (International Association Chiefs of Police, September 2012), 1, https://www.ncjrs.gov/pdffiles1/nij/grants/239604.pdf.

[263] Roberts and Casanova, 26.

priority. Although the sharing of ALPR data with the public may be controversial, a privacy assessment by the IACP deemed that limited dissemination is allowable.[264] A departmental policy should be established by police, with community support, to regulate the sharing of such information. This information should follow strict criteria, such as listing license plates only for vehicles involved in specific crimes and situations or requiring probable cause for police to stop a vehicle. It is critically important for police to provide feedback to citizens and share successful efforts and any case resolutions attributed to residents sharing camera data. In addition, a phone app created by the police featuring criminal intelligence appropriate for the public would be an ideal communication exchange. The notion of having community members "looking out" for suspect vehicles is a massive force multiplier. Instead of the eyes of the 20 or so officers on duty, potentially thousands of engaged participating community members could watch and help, too. After all, information is critical to the empowerment process.[265] According to a report by the James L. Knight Foundation, "Communities thrive when citizens genuinely participate in self-governance and accept responsibility with respect to community issues."[266] The innovative concept of expanding hot list alerts into neighborhoods could potentially protect neighborhoods from victimization, increase apprehension, and empower citizens in their public safety role.

## C.    DEMOCRATIC COMMUNITIES

The democratization of technology provides individuals and neighborhoods a bridge to contribute information and impact safety in their community. The relationship between citizens and police becomes much less one-dimensional and rather more democratic. By operating cameras and collecting footage, residents have choices to make. Initially, they must choose whether to engage with police officers and share their data. Eventually, they will decide if this is a fruitful relationship, and whether or not they will

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[264] International Association of Chiefs of Police, *Privacy Impact Assessment Report for Utilization of License Plate Readers* (Alexandria, VA: International Association of Chiefs of Police, September 2009), 32.

[265] Knight Commission on the Information Needs of Communities in a Democracy, *Informing Communities: Sustaining Democracy in the Digital Age* (Washington, DC: Aspen Institute, 2009), 52.

[266] Knight Commission, 52.

promote or encourage such participation with their various social networks as an endorsement of positive interactions with the police. The democratization of technology may narrow some of the divides between community members and police.

Iain Britton, head of the United Kingdom's Centre for Citizens in Policing, speaks of a new paradigm in policing through citizen involvement. He explains,

> More widely, citizen involvement is at the core of a fundamental rethink of the relationships between policing and local communities. This rethinking can have profound implications. Resetting some of the relationships. Rethinking issues of responsibility. Redefining policing as being much more about working together, about co-producing, about doing things "with" communities rather than just "for" or "to" them.[267]

With a community-enhanced intelligence-led policing approach, police and residents should seize opportunities of equitable and innovative partnerships to accomplish the objectives of both law enforcement *and* the community with technology serving as the bridge.

Citizen participation is a vital aspect of democracy and one that relies on technology. Today's online users have a new attitude toward information.[268] The James L. Knight Foundation's report, *Information Needs of Communities in a Democracy*, suggests that citizens are no longer merely passive consumers of information; they "expect to own the information, actively engaging with it, responding, connecting."[269] With today's widespread availability of mass data, sharing that information is as necessary as ever to democracy and the people expect it. Information allows and encourages active participation in community affairs, which is one of the trademarks of a steady democratic society.[270] People who engage in civic activities often benefit from intrinsic rewards as well as the opportunity to gain new skills.[271] A community camera

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[267] Iain Britton and Ed Barnard, "Citizens in Policing—A New Paradigm of Direct Citizen Involvement" (presentation, Justice and Penal Reform: Re-shaping the Penal Landscape, Keble College, Oxford, UK, March 16–18, 2016), 9, http://www.ipscj.org/wp-content/uploads/2016/03/Citizens-in-Policing-–-A-new-paradigm-of-direct-citizen-involvement.pdf.

[268] Knight Commission, *Informing Communities*, i.

[269] Knight Commission, i.

[270] Greenberg, *Citizens Defending America: From Colonial Times to the Age of Terrorism*, 19.

[271] Greenberg, 19.

program exemplifies this assertion that engagement can be rewarding. By providing people an opportunity to tangibly contribute to improving the security of their home environments and neighborhoods, they may feel very rewarded by their new role and the resulting positive impact on their community.

Some argue, however, the use of technology by police may jeopardize democratic ideals. According to Gary Marx, today's new technologies are very powerful as they "penetrate historical boundaries of distance, darkness, time and economic barriers."[272] He warns that police may "become less democratic in their behavior."[273] The police have long been expected to protect the freedoms and liberties of citizens and to uphold their rights and dignity equitably. In answer to Marx's concern, I would argue that implementing the intelligence-led policing model and using data analysis to set priorities with a focus on crime and harm reduction, while engaging the community through technology practices, may actually improve, not harm, democratic behaviors of policing due to the use of focus and precision with their policing objectives and strategies.

## D.     POLICE LEGITIMACY

Individually empowering and participatory, the use of surveillance cameras and social media serve both citizens and police, instilling a sense of equality and transparency in the process. These technologies have the potential to add balance and reciprocity to the relationship with straightforward communication. The use of technology can keep citizens informed as well as reduce the friction and reactions based on wrong, incomplete, or missing information, as illustrated in an example in Chapter II highlighting the lack of data kept by the FBI on persons killed by police. Both social media and surveillance cameras directly affect citizen engagement and reaction. Social media and video images can directly contribute to relationships with the community. For example, a video of a shooting or a statement on social media can potentially inflame community perceptions or, conversely, provide reassurances. Thus, while these

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[272] Gary T. Marx, "Police and Democracy," MIT, accessed August 8, 2017, http://web.mit.edu/gtmarx/www/poldem.html.

[273] Marx.

technologies can positively affect communication and transparency, they may also contribute to negative reactions resulting in violence and reduced perceptions of legitimacy.

With today's vast expansion of interconnectivity and Internet use, citizens expect their governments to be as tech-savvy as they are. An expansion of expectations may include transparency and accountability, which police departments should be willing and able to embrace. Transparency and accountability are possible because intelligence-led policing is metric-oriented. The community values measured outcomes.[274] For example, through crime statistics and the analysis of crime reduction, police can share statistics, hot spot maps, and other relevant information via their website or preferred social media platforms. Evaluating various police operations particular to community-enhanced intelligence-led policing, such as use of informants or disruption techniques, can illustrate the cost-benefit of these strategies.[275] Citizens should find satisfaction in this demonstration of data and evidence.

Surprisingly, legitimacy may be an unforeseen benefit of intelligence-led policing practices and outcomes. As an objective and data-driven policing model, intelligence-led policing is likely to be fair and impartial in its focus on crime issues and the pursuit of offenders based on analysis rather than potentially biased community input and concerns. For example, data analysis provides an objective determination of where officers should patrol and who to pursue. According to Ratcliffe, "Policing places proactively is perceived very differently by the public compared to when police are profiling people."[276] Therefore, it is likely more acceptable when police are deployed by resource-rich analysts to specific, current crime hot spots rather than frequent patrols of particular neighborhoods. These patrols are more focused and purpose-driven, rather than perceived as random or biased. Moreover, due to better intelligence, officers can be more efficient in reducing crime and arresting criminals, thus lessening the need for a strong show of force on the street. Community policing, on the other hand, tends to increase police

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[274] Ratcliffe, *Intelligence-Led Policing,* 2nd ed., 165.

[275] Ratcliffe, 167.

[276] Ratcliffe, 145.

presence as a crime strategy.[277] A strong presence is not necessarily demonstrated to resolve the crime problem, but to provide assurances to the neighborhood that it is secure.[278] An increased presence of officers may be unwelcome by some communities that feel alienated or targeted. Criminal researcher Brett Stoudt says, "One thing that we hear over and over and over again in our studies is that people living within these communities, where there's a lot of police, feel like they're not able to go about their day with dignity."[279] These negative feelings and perceptions highlight the critical need for communication and respect between police and the communities they serve.

According to Ratcliffe, some would argue that the intelligence-led policing strategy of using informants may bring legitimacy into question.[280] The concerns may be due to the perception that informant information can be unreliable and because informants have their own motives, such as financial gain, rather than civic-mindedness.[281] However, community policing may also be called into question on its efficacy of perceived legitimacy. Despite community policing's primary objective of improving police legitimacy, Skogan observes that community policing may not always be equitable.[282] For example, the Houston study, as mentioned earlier, showed that some programs were more partial to racially dominant, more affluent neighborhoods based on the way they were established and operated.[283] Furthermore, while working on their own initiatives, officers focused their efforts and paid greater attention to areas where they were "well-received."[284] Skogan says, "It is very easy for them to focus community

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[277] Michael Palmiotto, *Community Policing: A Policing Strategy for the 21st Century*, 1st ed. (Burlington, MA: Jones & Bartlett Learning, 1999), 148.

[278] Michael Palmiotto, *Community Policing: A Police-Citizen Partnership*, 1st ed. (New York: Routledge, 2011), 224.

[279] Victoria Bekiempis, "Foot Patrol: A Catch-22 of Community Policing," *Newsweek,* May 17, 2015, http://www.newsweek.com/community-policing-foot-patrol-question-332168.

[280] Jerry Ratcliffe, "Intelligence-Led Policing," *Trends and Issues in Crime and Criminal Justice* 278 (Australian Institute of Criminology, 2003): 5.

[281] Martin Innes, "'Professionalizing' the Role of the Police Informant: The British Experience," *Policing and Society* 9, no. 4 (May 2010): 20, https://doi.org/10.1080/10439463.2000.9964823.

[282] Skogan, "The Impact of Community Policing on Neighborhood Residents"; Ratcliffe, *Intelligence-Led Policing,* 2nd ed.

[283] Skogan, "The Impact of Community Policing on Neighborhood Residents," 179.

[284] Skogan, 180.

policing on supporting those with whom they get along best and share their outlook. As a result, the 'local priorities' that they represent will be those of some in the community, but not all." A 2011 RAND report, *Moving Toward the Future of Policing*, states, "[Intelligence-led policing] stresses the importance of analytical techniques *that are outside police officers' own judgments* to guide practices and decisions. This is in contrast to the inherently subjective judgments that result from personal involvement in specific communities."[285] This disparity further highlights the contrast of intelligence-led policing and its aim to provide focused and objective policing in protecting and serving the community.

In community policing, neighborhood crime watch meetings are a popular mode for police to interact with the community.[286] Research shows very contrasting results at their effectiveness of preventing crime.[287] Furthermore, research suggests they typically fail to produce democratic input for police because only certain groups typically attend these meetings.[288] Even those who do attend often have "single issue" motives, which are not necessarily representative of the needs of the community at large.[289] Intelligence-led policing does not pick and choose whom to listen to in setting police priorities, such as allocating resources to an affluent neighborhood based on a specific demographic. Rather, police follow the analysis—whether it provides crime mapping hot spots, locations of crime series, or identification of known criminals. Furthermore, intelligence-led policing looks beyond vocal residents, instead asking all engaged residents for intelligence or data, such as videos, to help guide investigations and allow police to determine priorities. As intelligence-led policing is evidence based, according to Ratcliffe, it relies on scientific evidence as the central foundation for decision-making.[290]

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[285] Treverton et al., *Moving toward the Future of Policing*, 34–35.

[286] "U.S. Justice Department: Does Neighborhood Watch Reduce Crime?," *Journalist's Resource* (blog), March 26, 2012, https://journalistsresource.org/studies/government/criminal-justice/us-justice-department-neighborhood-watch-reduce-crime.

[287] *Journalist's Resource.*

[288] Innes et al., "Seeing Like a Citizen," 101.

[289] Innes et al., 101.

[290] Ratcliffe, *Intelligence-led policing*, 2nd ed., 60.

And for that reason, it is potentially a fairer, more impartial model than community policing. Policing practices that are egalitarian seem most likely to enhance police legitimacy.

In 1988, community policing researchers David Carter and Robert C. Trojanowicz stated, "What many community residents have so long lacked is a voice that makes an impact on the delivery of government services."[291] The democratization of technology has made collaboration possible by providing a platform for residents to be heard. Widespread, affordable, and easy-to-use technologies are connecting residents more than ever with their neighbors as well as police officers and providing opportunities for empowerment and partnership. Community-enhanced intelligence-led policing has the potential to serve communities by disrupting and reducing crime as well as empowering citizens with a new role in safety.

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[291] David L. Carter and Robert C. Trojanowicz, "The Philosophy and Role of Community Policing," National Center for Community Policing, 1988, 11, https://pdfs.semanticscholar.org/86a1/ada1104b45b405247b0e763cd69ca264fd0a.pdf.

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