Title: Exploring the Relationship between Citizens and the Police Via Twitter

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Abstract

While there exist numerous efforts to better understand the relationship between citizens and law enforcement, most available data on this topic provides only details on isolated encounters with possible offenders or snapshots of opinions from one side of the encounter. What is needed is synthesis of sustained dialogue and micro-interactions among and between police and citizens. Using longitudinal data consisting of messages posted by New York City and Seattle police precinct accounts, mentions of these accounts by private citizens, and general mentions of law enforcement within these metro areas, this project will detect whether citizens and/or police address issues pertaining to police practices and community wellbeing on Twitter and determine through which channels these interactions occur. Finding thematic congruence in content posted by these groups and identifying the channels through which this interaction occurs has important implications for the development of police/community trust, the implementation of police reform measures, and overall community wellbeing.

Project Overview

The relationship between citizens and the police is of particular importance to policymakers and social scientists alike given the role that law enforcement plays in day-to-day community life. This issue has become a major focus of public discussion following events such as the shooting of Michael Brown that many feel illustrate the unjust use of force and have prompted some to question whether precincts need to modify their approach toward policing and interacting with communities. Some have suggested that the implementation of procedural reforms among the police – such as requiring officers to wear cameras, ending “broken windows” policing strategies, and providing more in-depth training regarding the appropriate use of deadly force – may increase the trust experienced by these groups (Arial, Farrar, Sutherland, 2014; Correll, J., Park, B., Judd, C. M., Wittenbrink, B., Sadler, M. S., & Keesee, 2007; Richardson and Goff, 2015; O’Brien and Sampson, 2015). Greater community trust, it is believed, is strongly associated with effective law enforcement, more frequent instances of “policing by content,” and general increases in community safety (Goldsmith, 2005).

Improving our understanding of the relationship between citizens and police has particularly salient implications for communities with large racial/ethnic minority populations. Discussion surrounding police reform is preceded by an abundance of research documenting the prevalence of the public’s distrust in the police – particularly within communities populated by large numbers of racial/ethnic minorities (Goldsmith, 2005; Tyler, 2005). A number of proposed reforms - such as racial bias training or establishing precincts that are as diverse as the communities they patrol (Correll et al. 2007; U.S. Department of Justice and U.S. Equal Employment Opportunity Commission, 2015) - specifically seek to improve the relationship between law enforcement officers and minority citizens. Overall,
improvements in police/community trust may be particularly advantageous to citizens of color, who many feel are unjustly targeted and often treated unfairly by law enforcement officers (Goldsmith, 2005).

There currently exist a number of data sources that seek to capture information on citizen/police relationships for the sake of police reform. Many of these data sources focus largely on assessing the nature of isolated contacts between these groups. There are, for instance, databases available from sources such as the Federal Bureau of Investigation’s Uniform Crime Reporting (UCR) program or the New York Civil Liberties Union that document interactions between police and possible offenders. There are also a number of grassroots efforts in effect to systematically catalogue instances of police-citizen encounters that result in citizen deaths. Fatal Encounters (www.fatalencounters.org), for instance accumulates data from paid researchers, public records, and crowdsourced submissions in an effort to develop a comprehensive, searchable database of private citizens who died at the hands of the police. Killed by Police (www.killedbypolice.net), which started as a Facebook page, attempts to curate this data in a similar way. In addition to data on police-citizen encounters, efforts to better understand the relationship between these groups may utilize citizen attitudes as collected by the U.S. Department of Justice (archived at www.data.gov) or the Pew Institute (see Doherty, Tyson and Weisel, 2014).

While these data collection efforts have yielded a significant insights regarding trends and effectiveness in law enforcement techniques – particularly in regard to their ability to highlight possible racial bias in actions taken by police – they nonetheless provide only a limited window through which researchers may view the nuanced dynamics between citizens and police. Moreover, most of these data provide only details on what transpired during individual encounters or how citizens feel at the time of a survey, rather than illustrating the ongoing, microdynamics of the relationship between citizens and the police. In other words, existing data tell us little about if and how these parties interact outside of criminal settings, and do not provide any information the thematic nuance of their conversations regarding police/community trust or police reform. Having this information, however, is critical to helping researchers understand growing tensions between citizens and the police and develop pathways for responding to these tensions appropriately. As stated by Code for America’s directory of safety and justice Jenny Montoya Tansey: “In communities across the country, there is a broad consensus that our justice system is not working…They need the ability to increase transparency around the inner workings of the justice system, increasing accountability and making possible more productive public dialogue about these pressing issues.” Focusing on the logistics of encounters or snapshots of attitudes does not disclose the dialogue that change requires.

One possible pathway through which researchers may examine nuanced, sustained interaction between citizens and law enforcement is by capturing these interactions as they occur on Twitter. Data from Twitter provides text-based evidence of users’ interactions and opinions coupled with information about the users themselves. The platform is considered by many to be a “microphone for the masses” (Murthy, 2011) or a “global town square” where users can assemble and discuss current events. This is particularly true of issues and events that pertain to race (Ramsey, 2011; Clark, 2014). In keeping with the growing importance of Twitter in social life, many organizations now use Twitter as a means of
updating the public on current events. Law enforcement has adopted Twitter usage as a means of disseminating information on crime and incidents, local events, public safety and about the department itself (Heverin and Zach, 2010). Likewise, the public is known to engage with law enforcement on Twitter by retweeting precinct-posted content or directing information toward the police (Heverin and Zach, 2010). Indeed, Twitter may provide an outlet for community policing – a strategy that encourages law enforcement to develop relationships with citizens and take a holistic rather than incident-based approach toward evaluating community health. Given this, it is possible that if there exists an ongoing dialogue between citizens and police regarding police reform and community wellbeing, they are having this conversation on Twitter. Access to this conversation will provide unique insight into how both sides view these issues, whether there is consistency in how they view them, and whether they interact on the matter. The presence or absence of dialogue between these groups may have important implications for police community trust and community wellbeing.

Our objective in this project is to engage in an exploratory analysis of the conversational dynamics between police and citizens on Twitter, focusing particularly on discussion pertaining to police reform and community wellbeing. It will assess whether individuals use Twitter as a platform to initiate or engage with law enforcement regarding community health or procedural reform. Likewise, it will characterize the content posted by individual precincts to determine if they engage in this broad dialogue – which in itself may help build community/police trust by demonstrating the recognition of new ideas and values (Goldsmith, 2005) - or whether there is a thematic disconnect in the content posted by citizens and precincts. We may expect that precincts that adopt Twitter may primarily use this context as a tool for broadcasting information rather than engaging with citizens, while citizens may view Twitter as more of a “town square” whether they can communicate with institutions and other users about pressing social issues (Leetaru, 2015). While Twitter itself might provide a promising context through which citizens may interact with law enforcement on topics related to police practices and community wellbeing, the presence of a conversational disconnect between these groups may have negative repercussions for the development of police/community trust and police reform.

Description of Data

Data for this project come from two sources: police precinct Twitter account profiles and mentions of police accounts by citizens on Twitter. In regard to location, we focus on Seattle and New York as our case studies. New York was selected due to the large number and diverse nature of precinct accounts associated with the New York Police Department (NYPD). Seattle was selected due to the fact that the Seattle Police Department is known to interact frequently with citizens via social media and endorses social media engagement as a form of building community involvement and trust (O'Toole, 2015). Between these two locations, a total of 135 active precinct accounts were identified and included in this analysis.

To gather data on the precinct themselves, we collect user-centered information via Twitter's Representational State Transfer (REST) API. The REST API allows us to capture information on: each precinct’s profile, timeline (limited to the most recent 3200 tweets), and network information. Data for this project were collected on a weekly basis in order to capture changes in profile content, timeline
content or network structure over time. Figure 1 displays the distribution of the logged counts of friends and followers for the accounts collected and illustrates that most accounts have far fewer friends (i.e. accounts that they are following) than followers. The mean number of statuses posted by these accounts is approximately 8,533, with a maximum status count of 36,450 from Seattle’s K2 Precinct and a minimum count of 114 from the account the NYPD 68th precinct. Intensity of usage varies significantly among the precincts selected. Seattle’s K2 Precinct is the most active precinct and issues an average of approximately 981 tweets per month. The NYPD 68th precinct is the least active precinct and issues an average of approximately 6 tweets per month. The average precinct issues 240 tweets per month.

Mentions of precincts and mentions of law enforcement in the metro areas highlighted are collected using Gnip’s Historical Powertrack Twitter API made available to us through a university contract. Gnip is a social media API aggregation company that provides access to information from multiple sites through a single API. For those interested in collecting Twitter data, Gnip provides multiple access options. It offers an enhanced Search API, which adds dimensions to the data that are not accessible through Twitter’s public API, and it offers a Historical Powertrack API that provides access to all publicly available tweets posted since Twitter was launched (with the exception of tweets that have been deleted or removed by the author). For this project, we capture all mentions created within the past 12 months.
There are a number of advantages associated with using Twitter data to analyze the relationship between citizens and the police. For one, Twitter opinions are solicited, profiles are semi-anonymous, and users project information to an “imagined audience” on Twitter without full consideration of who may see that content and/or disagree with it (Marwick and boyd, 2010; Litt, 2012). Given this, researchers may be able to capture negative sentiment toward law enforcement more effectively and more honestly than they might through surveys. Furthermore, Twitter is disproportionately popular among black and Hispanic internet users (Duggan and Smith, 2014), so data collected from Twitter may provide access to the opinions of groups traditionally underrepresented in survey research. Finally - and perhaps most importantly - these data provide not only an estimate of citizens’ sentiment toward the police, but also justification of these sentiments and information about the users who hold them. Overall, text from Twitter allows us to analyze the micro-interactions that transpire between individual precincts and their constituents, and having this hyper-local perspective permits us to examine this dynamic both within and across precincts, and as it develops over time.

As stated previously, this analysis will explore whether citizens and/or police discuss issues related to police reform and community wellbeing on Twitter, and through what channels this interaction may occur. We will use a combination of automated text analysis techniques and qualitative analysis to explore the dynamics of this discussion within the Twitter environment. We will begin by using the R packages tm (Feinerer and Hornik, 2015) and RTextTools (Jurka, Collingwood, Boydstun, Grossman, van Atteveldt, 2014) to examine word frequencies in the tweets, both collectively and within precincts. We will then use the package topicmodels (Gruen and Hornik, 2011) to characterize the content posted by citizens and police by conducting a Latent Dirichlet Allocation (LDA) analysis of the tweets. This method that assumes text content is composed of a finite number of topics, and that each topic is reflected by a distribution of words that have a certain probability of being included within the topic. Again, this process will be carried out for citizens/police as entire groups, as well as by precinct. Finally, we will randomly select a small number of individual precincts from the data and engage in a qualitative analysis of the content posted by police and citizens among the most frequently mentioned accounts, and within the metro areas highlighted.

In addition, within our purposively sampled subset we plan to collect demographic information on citizens who mention precinct accounts using methods outlined by McCormick, Lee, Cesare, Shojaie and Spiro (2015) and examine the composition of individuals mentioning specific precincts or discussing law enforcement in general. We may also consider how the content posted varies according to the demographic characteristics of the individual.

Discussion

There is longstanding interest in better understanding the relationship between citizens and the police. Recent events have turned this discussion toward the need to initiate procedural reform among law enforcement officers. Many agree that the implementation of police reform will help bolster the community’s trust in law enforcement, which will ultimately lead to safer communities and more
effective policing. These reforms are particularly pertinent to citizens of color, as many believe that law enforcement officers unjustly target these groups.

Our preliminary analysis indicates a significant amount of twitter activity by NYC and Seattle Police Precincts and the citizens who follow them. The results of this study will provide insight into whether citizens and/or police are discussing community wellbeing and police reform – including factors motivating reform and potential benefits of reform – and whether they are engaging in conversation regarding these topics. We may find that individual precincts are using Twitter as more of a broadcast medium than a tool for engaging with constituents, while users are talking amongst one another about these issues. Likewise, we may find that precincts do offer information and/or engage citizens on such topics. Examining the posted content and presence of thematic consistency/disconnect among citizens and the police on this topic could have important implications for the future of police/community relations, and ultimately for police reform and community wellbeing.

References:


