The Police Officer Involved Homicides Database Project

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Abstract
Our project explores un- and under-reported incidents of police officer involved (POI) homicides, both justified and unjustified. To fill gaps found in existing government and local databases pertaining to POI homicides, we deploy participatory action research methods through community involvement in mining and analyzing social media data related to these incidents. Through these methods, social media information operates in concert with publicly available government and local databases to create a clearer representation of the lived realities of communities experiencing police homicides in the United States. Los Angeles County is our first community of study.

1   Introduction

Recent events in the August 2014 case of Michael Brown, an 18-year-old unarmed African American man killed by a police officer in Ferguson, Missouri, have drawn attention to a gap in publicly available information regarding the number of Americans killed by police each year.

The FBI's Uniform Crime Reporting Program (UCR) collects data from more than 17,000 local law enforcement agencies to provide statistics about crime and law enforcement in the United States. According to the Supplementary Homicide Report (SHR), filed monthly by UCR agencies in the seven-year period from 2008-2014, there were nearly 400 "justified" police officer involved homicides (POI homicides)[1] (Federal Bureau of Investigation, 2015; National Center for Juvenile Justice, 2014). The number of justified POI homicides may seem alarming; perhaps more alarming is the reported number is likely low. The UCR and the SHR rely on the voluntary involvement of state and local police agencies. Just over one third of law enforcement agencies contribute to the FBI's UCR. Even fewer agencies report to the more detailed SHR. The largest databases of police homicides in the U.S. are thus quite incomplete and inconsistent (Bump, 2014; Enten, 2012).

Our project explores un- and under-reported incidents of POI homicides, both justified and unjustified, through an analysis of extant federal and local databases of information pertaining to POI homicides. We complement this analysis through

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[1] The databases use various terms to label the involvement of a police officer in the homicide. The Bureau of Justice's Arrest Related Deaths (ARD) Statistical Tables deploys the term "law enforcement officer", while the CDC WONDER database uses "legal intervention." The SHR and National Archive of Criminal Justice Data both use "police officer." Though the terms appear interchangeable, we chose "police officer" because of its higher frequency both among the databases and in the press.

participatory action research methods to fill gaps in existing government and local databases. We chose Los Angeles County (LA County) as the first community to study. According to D. Brian Burghart (2012), LA County is the metropolitan area with the United States' "best records" on POI homicides. Burghart curates the only database of deaths through police interaction gathered from community reports: FatalEncounters.org. Yet even in communities considered to have the best records, we see that there are still important gaps to be explored.

To address discrepancies and gaps we couple close analysis of local and federal POI homicide databases with social media data. Social media data analysis is an effective tool for adding to extant records due to its all-encompassing nature; many people from diverse backgrounds use these digital platforms for a multitude of reasons. Social media information can be used in concert with publicly available databases to create a clearer picture of the lived realities of communities encountering POI homicides in the United States.

2   Open Data

"Open data" is a concept that has been in use since 1950 (Committee on Scientific Accomplishments of Earth Observations from Space, National Research Council, 2008). The simplest definition of open data requires data to be available without fees and with minimal licensing restrictions (Molloy, 2011; Pollock, 2014). "Data" is an even broader concept, defined as "A reinterpretable representation of information in a formalized manner suitable for communication, interpretation, or processing" (Consultative Committee for Space Data Systems, 2012, pp. 1–10). Understandings of data and open data have recently acquired new interest as a consequence of increasing amounts of "big data", and the supposed data deluge resulting from the implementation of new digital and computational technologies. Citizens, consumers, scientists, financial transactions, and more produce huge amounts of data every day. Ownership, management and sharing of data are crucial for establishing new, or maintaining extant, power relations for many discrete stakeholders. Discussions surrounding open data represent one realization of such power struggles.

This project strives to ensure that data on POI homicides are open not just to those with the specialized expertise and tools to examine the data, but also to all citizens. We contend that data can provide important insights into everyday life, and therefore these datasets must be available to everyone, even those with limited data resources and know-how. While the federal government's open data standards (U.S. Government, 2015) apply to federal data, this project also explores opening government data from the state and local levels in an accessible manner .

We established the following questions based on exploratory research into the level of completeness and the degree of openness for existing POI homicide databases pertaining to LA County.

- What is the current state of accessible information on POI homicides for LA County?
- What does this say about the current state of open data on POI homicides in the United States?
- How can we use social media to fill gaps in the data on POI homicides?

3   Methods

We employ mixed methods to study the degree of completeness and openness of POI homicide data in the United States. Our methods include document analysis, data mining, and participatory action research. Our research steps are thus:

Step 1: Find and assess the currently available sources of information on POI homicides in the United States pertaining to LA County.

Step 2: Collocate the information into a single set of databases for further research.

Step 3: Organize a hackathon and invite members of the general public to work with the single organized set of POI homicide databases and social media content.

Step 4: Share results and methods with communities outside LA County.

In Step 1 of our research plan we employed document and database analysis through finding, closely analyzing, and recording available information on POI homicides in LA County. We located a variety of databases containing information at least partially related to POI homicides (Table 1). In addition to government resources, we discovered professionally-collected local information from the *Los Angeles Times (LA Times)*, as well as grassroots-organized record tracking efforts from the Fatal Encounters website. We evaluated each database in terms of multiple criteria. Overall, we found that there were many inconsistencies among the data.

Table 1. Existing databases related to POI homicides in the United States.

Database Name	Abbreviation	Sponsoring Organization	Source Type	URL
Supplementary Homicide Report	SHR	FBI	Government	http://www.fbi.gov/about-us/cjis/ucr/nibrs/addendum-for-submitting-cargo-theft-data/shr
Wide-ranging Online Data for Epidemiologic Research	WONDER	Center for Disease Control (CDC)	Government	http://wonder.cdc.gov/
National Archive of Criminal Justice Data	NACJD	National Institute of Justice	Government	http://www.icpsr.umich.edu/icpsrweb/NACJD/
Arrest Related Deaths	ARD	Bureau of Justice	Government	http://www.bjs.gov/index.cfm?ty=dcdetail&iid=428
Fatal Encounters	FE	Individual	Community Reporting	FatalEncounters.org
Los Angeles Times Homicide Report	*LA Times* Homicide Report	*LA Times*	Journalism	http://homicide.latimes.com/
National Incident Based Reporting System	NIBRS	FBI, DOD, NIJ, ICPSR	Government	http://www.bjs.gov/index.cfm?ty=dcdetail&iid=301

In our second step we organized the existing resources into a single set of databases. We have created our own version of each of the extant databases to include only the POI homicide components of the resource and only those in LA County. We encountered considerable difficulty in this step due to the lack of clarity surrounding each individual database's codes, as well as the difference in codes and codifying techniques used by each different government or professional organization. For this reason we were unable to collate all of the databases into one document and instead created a set of databases.

For our third step, we are hosting a hackathon[2] for local community members. The hackathon employs participatory action research, as it involves community work on issues of interest to the researchers (Reason & Bradbury, 2001). We will hold the event on the UCLA campus on February 14, 2015. We advertised the event widely and received an outpouring of interest and support from community members, activists, reporters, students and academics.

A substantial amount of literature exists in the fields of Digital Media & Communication, Psychology, Education, and related fields on the subject of hackathons as a method of participatory design, leading to a discussion of hackathons as an effective method of promoting group collaboration and instantiating new public spheres for community participation and interaction (Boeder, 2005; Dantec & DiSalvo, 2013). These opportunities for group collaboration, discussion, innovation, and participation with public issues become especially significant in times of civic tension or stress, a condition the United States currently faces as public outrage at the frequency of POI homicides continues. Wandserman & Florin (2000) propose a number of benefits citizen participation can offer to a given community, including improved quality of plans and programs as a result of the special knowledge of citizen participants, a sense of increased citizen control in developing programs that fit community needs and values, and a heightened sense of responsibility with decreased feelings of alienation and anonymity among citizens.

Our hackathon goals are twofold. First, we hope to gain insights into the use and implementation of our collated databases by average citizens. Second, we hope to add qualitative nuance to the quantitative information available on POI homicides in existing local and national databases. We will ask the participants to mine social media conversations on Twitter and Facebook to look for information about the inconsistencies in the databases we identified in Step 1. Participants will also seek out unknown names, dates, places and other details on POI homicide cases in order to better understand the circumstances that led to the erasure of such cases from official reports.

Examples of discrepancies we have found that will be investigated at the hackathon are the differences between the FBI's SHR and the *LA Times* Homicide Report for 2012. The SHR shows 33 instances of POI homicides for 2012, while the *LA Times* Homicide Report quotes 39 homicides in the category "only officer involved". At the hackathon, a session will work to identify the six unreported cases by crosschecking the information contained in the two databases. We expect to be able to identify the dates and locations of the six under-reported incidents. We will then use Twitter and Facebook to look for user-generated information regarding the circumstances in which

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[2] Drawing from Carl DiSalvo, et al's work on hackathons (2013) , we recognize that the term "hackathon" has a specific history relating to corporate hackathons of Silicon Valley, which favor the production of technical solutions for business opportunity. Instead, we use "hackathon" to denote "issue-oriented hackathons"—events that draw together activists, citizens, entrepreneurs, and coders to address social conditions and their consequences.

such cases occurred.[3] We hypothesize that the information we will find on social media will explain why the six cases were under-reported by authorities. Other hackathon sessions will create easily sharable visualizations from existing data, as well as visually document the information regarding the inconsistencies among databases.

Our fourth research step is to share our results and methods with communities outside LA County. We seek to make this information available not only to the public via hackathons, but also for further endeavors, including data journalism, the efforts of community groups interested in projects promoting social justice, and ensuring data are accessible to the average citizen. In conjunction with our participation in the iConference Social Media Expo, we hope to share the tools and methods we used so other communities might explore these resources to gain similar localized knowledge about POI homicides.

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[3] To facilitate participant searches for police involved homicide narratives on social media, we have formulated a tentative list of hashtags, including #policebrutality, #blacklivesmatter, #Ferguson, #MichaelBrown, and #EricGarner among others. This is by no means an exhaustive list and hackathon participants are encouraged to propose others. Our method of specifying hashtags relied on Twitter result numbers and our qualitative review of news articles and other media coverage regarding police involved homicides. This method aligns with other social media sentiment analysis projects, which identify useful hashtags in using the same tactics (Kouloumpis, Wilson, & Moore, 2011; Murnane & Counts, 2014).

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