


# Understanding Decisions to Share Minor Public Safety Incidents on Twitter Through a Collective Action Theory Lens

Mashaël Yousef Almoqbel, New Jersey Institute of Technology, USA

Marwa Khalid Alraihan, Saudi Business Machines, Saudi Arabia

Donghee Yvette Wohn, New Jersey Institute of Technology, USA

 <https://orcid.org/0000-0001-5583-4430>

## ABSTRACT

Social media feeds provide a lot of information that would be of great value to law enforcement. Previous research dedicated considerable attention to sharing large-scale public safety incidents on social media. However, little research focused on minor public safety incidents. According to collective action theory, rational people would not participate in a public good unless there are external incentives other than the benefit from the public good. In this research, the authors use this theory to test public safety as the public good and see if such incentives have an effect on people's decisions to share incidents. They utilize a survey of U.S. adults with a sample of 285 participants. In this research, they hypothesize a positive relationship between decisions to share and engage in public safety on social media and 1) incident location proximity, 2) relationship with the victim, and 3) coercion. Results show general support for the theory's assumptions.

## KEYWORDS

Collective Action, Public Safety, Sharing Content, Social Good, Social Media, Social Networks, Twitter

## INTRODUCTION

Social media users tend to use social media more often when there is a crisis. Twitter feeds contain abundant information about public safety issues that could play a large role in protecting the public. It was found that during disasters, the attention of Twitter users is focused on the crisis, which provides a great opportunity for researchers and law enforcement to take advantage of that (He & Lin, 2016). However, relatively less research has focused on minor public safety incidents and little is known about the factors that affect users' intention to participate in the sharing of information related to these incidents.

The act of sharing is a form of collective action that is performed by crowds on social media. Attempting to understand this phenomenon under collective action theory would yield better understanding of motivations for such actions. Collective action theory posits that rational people will only participate in a public good if there is an incentive or if there is a form of coercion (Olson,

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1971). A public good is any general good that will benefit everyone, whether they participate in it or not. In this research, the public good that is assessed is intentions to share public safety incidents on social media to improve overall public safety. Understanding motivations under this theory is vital due to the lack of studies that cover collective action in social media in the fields of human computer interaction (HCI) and computer-supported cooperative work (CSCW) (Monroy-Hernández, Farnham, Kiciman, Counts, & De Choudhury, 2016).

One of the hypothesized incentives for sharing is perceived location closeness, which refers to the physical and/or psychological distance between the public safety incident and the user retweeting/sharing it. Researchers claim that Twitter users tend to retweet or tweet about an emergency event if it was close to their physical location (Starbird & Palen, 2010). Additionally, relationship closeness with the victim is another incentive. Social media users tend to communicate more with people they know or relate to during a crisis (Rathnayake & Suthers, 2017). However, there is not enough literature covering perceived relationship closeness and its relation to social media users' likeliness to share. Lastly, according to the theory, coercion is assumed to be an outside impact like a government law or school rule that can affect one's likeliness to do something. Coercion is tested in this study with a hypothetical scenario of a rule or regulation by an authority to share public safety incidents. Coercion in the form of rules or regulations can be a significant reason to influence Twitter users' likeliness to share. Also, in the literature, previous focus on public safety was on large scale incidents and disasters, while overlooking public safety incidents of minor severity. In this research, the main contribution is exploring Twitter users' behavior in terms of motivations to share minor public safety incidents on the platform. The research adds to the literature in terms of understanding such motivations and proposing design suggestions that would help increase participation in minor public safety incidents on Twitter.

## LITERATURE REVIEW

This section explores social media's role in crisis relief, discuss collective action theory and its applicability to public safety research, and previous studies on incident location closeness, victim relationship closeness, and coercion.

### Social Media's Role in Crisis Relief

Social media and its users have proved their joint ability to help in cases of disasters (Almoqbel & Xu, 2019). Crisis relief is defined as any form of providing help and/or support to people or areas affected by a crisis. Social media was found to make it more effortless for users to participate in public safety matters (Valster, 2021). For example, in Haiti, a platform called Ushahidi was used to help relieve victims (Merchant, Elmer, & Lurie, 2011). Another example is what happened in Mexico when residents helped with an oil spill by sharing pictures and locations of hurt animals on social media (Merchant et al., 2011). Social media was not only helpful during disasters, but also helpful in fighting crimes. For example, Facebook was used to help in the fight against crimes in South Africa (Hattingh, 2015). However, there is still research to be done in this area due to two main reasons. First, previous research has focused on victim reporting (which involves reporting from the person who suffered from the attack), while overlooking witness crime reporting (which extends to any person who saw, heard, or generally witnessed an act of crime) (Mawby, 1980; Y Huang, Xia, Wang, & White, 2015a). Reading posts online about public safety is part of witnessing a crime, and thus, research on increasing reporting through sharing on social media, would help bridge the gap in the literature. Second, public safety organizations are still looking into leveraging social media to obtain information from the public (Mergel, 2013). Police departments share incident information on social media in order to seek information and collaboration from the public (Chanin & Espinosa, 2016; Mergel, 2013), which requires the public to collaborate and share what they know through social media or other means. Thus, understanding motivations to share incidents on social media is vital to fulfill the need by public safety officials, and to maintain overall public safety for communities.

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