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# SUCCESSFUL PRACTICES FOR USING SOCIAL MEDIA BY POLICE DEPARTMENTS: A CASE STUDY OF THE MUNICH POLICE

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# **SUCCESSFUL PRACTICES FOR USING SOCIAL MEDIA BY POLICE DEPARTMENTS: A CASE STUDY OF THE MUNICH POLICE**

*Research paper*

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## **Abstract**

*Social media has become a key component of police efforts to achieve public safety goals. To be effective, police must establish guidance on the best way to employ this tool in differing circumstances. Social media crisis communication guidelines for police departments have received little attention to date. Social media can support police in the successful dissemination of time-critical information and hinder the spread of rumors while aiming to remain as responsive as possible. Police departments, as the main formal authorities for establishing safety and security, take on enormous responsibility in management of crises such as terrorist attacks or shooting rampages. This paper conducts a multi-method case study of a 2016 shooting rampage event in Munich that resulted in the Munich police department receiving high praise. We answer three research questions about how social media, and particularly Twitter, played a crucial role in the crisis' mitigation. In addition, we show the aftereffects of the crisis on social media use by the police department and depict how public reaction to shared content increased and changed during, and then after, the shooting rampage. We conclude the paper by documenting the implicit social media successful practices deployed by the Munich police during this emergency.*

*Keywords: Social Media, Police Departments, Crisis Communication, Successful Practices, Emergency Management.*

## **1 Introduction**

A shooting attack which took place in front of a shopping mall on July 22, 2016 was the first serious shooting in Munich in many years (Schmidt, 2016). Many false social media postings by the public containing incorrect information spread during this event; the police department's social media team was overwhelmed by the volume of online comments and the effort needed to prevent misinformation from spreading through social media. The incident underscores the vital importance of police being able to disseminate timely and verified information over social media channels.

The ability to offset quickly spreading rumors illuminates the limitations and delays inherent in traditional communication channels and media. Crises cause significant stress that exceeds an individual's capacity to cope and requires extreme adjustment for the person to function appropriately (Reyes et al., 2008). In such situations, people turn to police: "police not only enforce the law and arrest offenders; they also are responsible for preventing crime, protecting life and property, maintaining peace and public order, and providing a wide range of services to citizens 24 hours a day" (Martin, 1999). Providing security in crises is "a traditional local police function" (Quarantelli, 1988). Local police play an essential role in keeping people calm in emergencies, providing both instructions and verified information as a trusted authority to members of the community. Coping with an emergency incident becomes much more complicated when combined with the time pressure and stress of an acute crisis. Effective communication by police departments in crises is also critical because ineffectiveness might result in a reputational threat to the department's crisis responsibility. Coombs (2004) argues that, even in crises situations in which organizations are viewed as victims of the crisis, there is still "a mild reputational threat" (p. 269). In contrast to other organizations, loss of police department reputation by the public could have severe consequences, as it is the only formal authority for security within the nation.

Social media is a very powerful tool enabling public sharing of critical information with millions of people during emergencies without the intervening tempering of other media channels or reporters (Crowe, 2011). However, the social media team in police departments are often inexperienced in coping with crisis situations, and yet they must perform well at all times during an incident in their role as verified information disseminator. Public anxiety is magnified as the flood of fast-flowing, rumor-based social media messages overwhelms the ability of trusted government authorities to provide time-critical information.

Therefore, we argue that having a set of clear guidelines for social media communication with the public in crises is essential for police departments. There is a great deal of research on use of social media by police departments around the world (Heverin and Zach, 2010; Crump, 2011; Lieberman et al., 2013; Ma, 2013; Meijer and Thaens, 2013; Rick and Nicholas, 2013; Grimmelikhuijsen and Meijer, 2015; van de Velde et al., 2015; Huang et al., 2016; Meijer and Torenlvied, 2016; O'Connor, 2017). Furthermore, literature reveals some general social media guidelines for government organizations (Wendling et al., 2013) and studies on the use of social media by police during crises (Bird et al., 2012; Hughes and Palen, 2012; Kavanaugh et al., 2012; Panagiotopoulos et al., 2014). Yet, research on successful practices for police departments engaging social media for crisis communication with the public has not received much attention to date; we address these practices in this paper.

This study examines the role of social media in communications between law enforcement and the public during emergency events, based on an extensive case study of social media use in mitigation of a serious crisis in Munich. The purpose of the study is to chronicle the role of social media in communicating with the public, and to document the implicit successful practices in the use of social media deployed by the Munich police during this emergency. In addition, we examine the change in social media use intensity of the Munich police department and the reactions of the public around the time of the emergency.

The following questions guide this research:

**RQ1.** How did the Munich police department use its social media platforms for emergency communication during the 2016 shooting rampage? How did the 2016 incident affect their social media use intensity?

**RQ2.** How did the 2016 incident affect the intensity of public reactions (comments, shares, likes) to the social media content shared by the Munich police department?

**RQ3.** Which social media practices guided the Munich police department in successfully communicating with the public around the time of the crisis?

Drawing on existing literature on the use of social media by police departments, empirical evidence from qualitative in-depth research interviews with the managers of the social media team of the Munich police department, a systematic analysis of social networking sites of the department as well as a detailed content analysis of online and offline materials, we shed light on the social media use of the police in crisis communication from different perspectives.

## **2 Literature Review**

The successful management of social media channels during emergencies is a critical component in establishing the image and credibility of government organizations. Kavanaugh et al. (2012) prescribes defined policies and clear guidelines about what information should be shared through which channels of communication, if a government agency plans to use social media tools in its crisis communication with the public. The potential of social media is not well-exploited by public agencies when governments fail to adapt their communication habits to social media characteristics (Hofmann et al., 2013). Therefore, in this research, we aim to identify successful social media practices for crisis management to increase police's ability to communicate effectively with the public.

The increasing use of social media by police departments (Lieberman et al., 2013; Procter et al., 2013; Brainard and Edlins, 2015) has resulted in new forms of engagement with the public in recent years. Law enforcement agencies employ social media for many purposes ranging from increasing public safety awareness to spreading time-critical information (Cassa et al., 2013; Meijer and Thaens, 2013; O'Connor, 2017). In addition to their more traditional roles of law enforcement and maintaining social order, police departments increasingly use social media for other purposes such as a channel to manage the image of the police and build community (O'Connor, 2017). The police department, as the main formal authority during an emergency, must make every effort to avoid communicating incorrect information as it could have serious public safety consequences, which distinguishes it from other emergency service providers (Reuter et al., 2016; Reuter and Kaufhold, 2018). Social media has the potential not only to enable communication with the public (Lieberman et al., 2013) and share information (Heverin and Zach, 2010), but is also quite promising in enhancing transparency (Rick and Nicholas, 2013), fostering trust in police (Crump, 2011), promoting community policing (Mergel, 2012; Xu et al., 2017) and encouraging civic engagement on public issues (Territo and Vetter, 1981).

Social media availability also influences the type and intensity (i.e., volume) of communication. The intensity of social media use have already been studied in other fields (Thoumrungroje, 2014). Internet users, accustomed to the immediacy of online interaction, are no longer tolerant of any delay in obtaining useful information, as was the case with traditional mass media (Xu et al., 2016). They demand the ability to contact police directly and respond to police announcements, moving away from the noticeably one-way reporting of mass media (Mergel, 2012; Xu et al., 2017).

Media sources gather, process and deliver information to the audience, who use it to resolve ambiguity, form attitudes, set personal agendas, expand a system of beliefs, and clarify values (Ball-Rokeach and DeFleur, 1976; Ball-Rokeach, 1985). An individual's need to obtain information increases in times of conflict and ambiguity in order to provide comfort, mitigate tension and cope with uncertainty (Seeger et al., 2003). These needs are usually heightened during crises and emergencies (Lachlan et al., 2016). In such situations, individuals may seek out forms of media that provide the timeliest and/or most reliable information about the situation, without acknowledging that timeliness and reliability usually trade off. These changing information needs may result in some shift in media choices during crises (Seeger

et al., 2003; Shklovski et al., 2010) so the dependency of people on social media channels would likely increase.

Given the efficiency of communication coupled with the potential to reach many individuals personally in real time, the benefits of using social media as a communication channel for emergencies are manifold (Kavanaugh et al., 2012). Not surprisingly, social media increasingly became one of the main channels of communication in mitigation of crises (Cho et al., 2013; Panagiotopoulos et al., 2016). It has been used to support emergency communication in many countries, ranging from the Boston Marathon bombings (Cassa et al., 2013) to terror attacks in Brussels (Mirbabaie and Zapatka, 2017) and many disasters occurring all over the world (Simon et al., 2015). In most cases, Twitter is the platform of choice. Twitter's character limits encourage short statements (Zhao and Rosson, 2009) resulting in quick response times (Gupta and Kumaraguru, 2012) and successful information dissemination to the public (Oh et al., 2013), which make it a preferred social media channel for emergency communication.

Although the crowdsourcing power of social media for emergency communication is promising (Gao et al., 2011), it can easily become a double-edged sword. Indeed, there is a critical distinction between distributing useful information shared by credible sources versus spreading unverified bad news (Chen and Sakamoto, 2014). The latter is especially dangerous due to the lack of cues that exist in the electronic world to make judgments about message veracity (Ozturk et al., 2015). Therefore, despite its benefits, unconstrained use of social media has the potential to trigger uncontrollable panic and anxiety in the public and could likely interfere with the disaster management efforts of law enforcement (Acar and Muraki, 2011; Tanaka et al., 2012).

Tanaka et al. (2013) suggest that transmitting rumors under uncertainty is human nature. People desire to share disaster-related messages, even if they perceive them to be anxiety-provoking (Li et al., 2014). Checking the accuracy of information and validation of shared content remain a big challenges faced by police in emergencies, given the large amounts of data, elevated stress levels and enormous time pressure emergencies elicit (Yates and Paquette, 2011). Thus, the ability for police to trade off the veracity of their communications against a firestorm of rumors or unsubstantiated messaging pouring over the Internet would likely affect the nature of its social media communication patterns and the public's reaction to it.

### **3 Research Methodology**

Following Morse (2003), a multi-method research design was conducted to minimize bias and establish credibility in the findings. Data were collected through in-depth interviews at the Munich police department, a detailed content analysis of online and offline materials and a systematic analysis of messaging on the social networking sites of the department. After gathering data from these varied sources, analysis was conducted following a qualitative-interpretive (grounded theory-like) approach (Miles and Huberman, 1994). The research was extended with some quantitative analysis to observe the social media intensity of the Munich police department as well as their followers during, before and after the emergency incident.

As a first step in data collection, two in-depth interviews were conducted in March of 2017 with two managers of the Munich police holding the following positions: *IT Project Manager, Chief-Superintendent of Bavarian Federal Police Agency* and *Deputy Head of Media and Public Relations, Chief-Superintendent, Munich Police Department*. Semi-structured qualitative research interviews consisted of several key questions that helped to explore areas such as the evolution of social media within the agency, the use of social media during emergencies, the crisis communication procedures of the department, challenges faced, and future plans for a more effective social media strategy. Interviews lasted about three hours, were recorded and transcribed verbatim by two researchers and checked by both interviewers for accuracy.

Further sources of data were consulted to complement the interviews and further support a grounded theory approach. Extensive document analysis was conducted (Bowen, 2009). Additional interviews with the department's social media team and press speaker (i.e., public information officer) about the team and their reaction to the incident were published in other media. Based on a careful analysis of this

available material, we selected and analysed 13 articles reporting on interviews or statements given by the Munich police department regarding the social media use of the police during emergencies.

Analysis of participants' experiences and opinions used an inductive approach driven by the research questions. Each transcript and the selected articles were coded independently using an open coding scheme (Strauss and Corbin, 1990). One of the researchers who conducted the original interviews and a secondary coder who was a member of the research team but did not participate in the interviews elicited emergent themes. Transcripts were analyzed and coded into unique categories within the interview protocol by using the constant-comparative procedure suggested by Lincoln and Guba (1985) and using an exploratory approach. Initial categories were expanded to accommodate themes that emerged. Some codes were merged to prevent redundant coding. An iterative approach of re-reading the transcripts, refining codes, and re-coding was undertaken following Green et al. (2007). Selected quotations were organized into 10 code categories: 1. The role of social media in the organization, 2. The social media team structure and its historical development, 3. Utilized social media platforms and purposes of use, 4. The use of social media for community policing, 5. Challenges faced at social media utilization and coping strategies, 6. The social media utilization strategy of the organization for communicating with the public in crises, 7. The use of social media for crisis management during the shooting incident, 8. Warning and Information Systems for the public (e.g. disaster management apps), 9. Perceived advantages of using social media (e.g. improving the image of the police), 10. Lessons learned and future plans for more effective use of social media in crises.

Results were then reviewed for consistency between the coders and were discussed until consensus was reached. Overall, the content analysis of the articles supplemented the interview findings to corroborate and augment content provided by police interviewees.

Two other sources of information round out the data collection. The Munich police department provided us with written documents related to the subject of the interviews, which was included in our content analysis. Finally, and central to this study, we examined the Facebook and Twitter messages posted by the Munich police over a period preceding and following the shooting rampage to shed light on the social media activity of the department for a period ranging from 10 days before the incident to 10 days after it. We also captured the public's social media reactions to police postings for the same period. Analysis of this data provided the intensity measures used to answer the first two research questions.

## **4 Data Collection and Analysis**

### **4.1 Background on the Incident**

Analysis centers on police activity related to a shooting rampage on July 22, 2016. An 18-year old student randomly shot people in front of a fast-food restaurant in the Olympia shopping mall (in German: *Olympia Einkaufszentrum, or OEZ*) in Munich's city centre. He killed nine people, and another 35 people were injured in the gunfire. Altogether, the shooter expended 57 shots, the final one being to himself. A relatively safe city, the Munich police department was not experienced with emergencies involving a large number of casualties. The department received an alarm about the incident late on a Friday at 5:52 pm - a time when most officers on the social media team had already left work. The press department spokesperson was not reachable, as the battery on his cellular phone had died; his 11-year-old daughter, who heard about it on the radio, informed him about the incident. Due to these considerable communication delays, and coupled with the need to conduct necessary verification on-site, the first warning to the public was made over Twitter at 6:35 pm (see Figure 1) (in English translation, "*At the moment, we have a big police operation at the OEZ. Please avoid the area around the shopping centre.*").

In the meantime, many pictures and videos of the scene had already reached thousands of people, initially over WhatsApp. This created enormous panic among the public. A video posted at 7:17 pm from a Twitter user showed the shooting, and escalated panic among the public even more.



Figure 1. First announcement of the incident by the Munich police department.

The police department was both understaffed and inexperienced in the effective use of social media in emergencies under enormous time pressure. Yet, the press department of the Munich police department managed to control the situation well under these circumstances. The press office received much praise due to its success in communicating during the rampage, receiving two gold awards in 2016 for the 'PR-Team' and 'PR-Professional of the Year' from the well-recognized PR Report Awards. This was the first time in its 14-year history these awards went to the same candidate in one year, and were given in honor of its exceptional communication during the event, including its "fast, digital, multi-lingual and empathic communication over social media" (PR Report, 2016). Furthermore, the press department also received a Special Award from the Federal Association of German Press Spokespersons' in recognition of its credible, trustworthy and sovereign communication with the public during the rampage, and for the "effective use of social media channels during the incident" (pressesprecher, 2016).

## 4.2 The Social Media Team

The Munich police department communicates with the public through traditional media channels and social networks. The social media team started with two people and grew rapidly. The team currently comprises five people. The department started using social media in communication with the public in September 2014 after noticing that the classic newspaper structure and media channels were limited in reaching to wider audiences:

*"Many people use the social media channels to get timely information about various subjects. An increasing majority of the German population is there. Not being online would mean losing these people. Therefore, the police is and should be part of the social media." (Deputy Head of Media and Public Relations, Chief-Superintendent, Munich Police Department, Interview)*

Twitter and Facebook are the main social media channels used by the department to communicate with the public. No other social media channel is planned currently but the Munich police department monitors whether they might need other platforms in the future to reach a wider public (Leopold, 2016). As of October 22, 2018, the department had 255,011 followers on Facebook (Polizei München, 2018a) and 459,661 followers on Twitter (Polizei München, 2018b).

Utilization of social media helps police to establish direct contact with the public without any other intermediary. Therefore, enabling open and transparent communication is an essential aspect of community policing:

*“We can be on the offensive; we can explain our measures in the way we want to explain it, not in the way the newspaper or television want to explain it” (based on the interviews with the Deputy Head of Media and Public Relations, Munich Police Department, Interview) and (Matthew et al., 2009; Böhm, 2016))*

Although Facebook and Twitter are both used for routine communications, the Munich police differentiate their use of social media based upon emergency status, relying more on Twitter during acute crises:

*“We use Twitter when we need to distribute information very fast. If there is an immediate danger, we announce it over Twitter. We use Facebook the next day to summarize what happened.” (Deputy Head of Media and Public Relations, Chief-Superintendent, Munich Police Department)*

The organization underscores the important role of using social media during emergencies in terms of disseminating time-critical information:

*“The longer citizens have to wait for information during emergencies, the greater the uncertain feeling the public gets.” (IT Project Manager, Chief-Superintendent of Bavarian Federal Police Agency)*

After providing some background information about the incident and the social media department of the Munich police department, we continue with the analysis of the change in social media use intensity around the time of the shooting rampage in 2016.

### **4.3 Analysis of the change in social media use intensity**

In response to the first research question, we first present analysis demonstrating the preferred channel for social media communication during this emergency. We then show the effect of the emergency on post-incident social media usage intensity (as measured by posting volume) by the police department.

Analysis is based on the social media activity around the time of the shooting incident. In particular, we monitored departmental tweets and Facebook posts in the 10-day period before the incident (07/12/16-07/21/16), on the day of incident (07/22/16) and in the 10-day period following the incident (07/23/16-08/01/16). The 10-day period before the incident was selected to depict routine (i.e., non-emergency) use of social media, and does so in an interval that involves the same number of followers as the date of the incident (as closely as possible). Tweets within the time ranges were generated by using the advanced search tool of Twitter and were analyzed manually. Similarly, a manual analysis was conducted on Facebook on the postings for the given time periods.

We noted 13 tweets and 14 Facebook posts within the 10 days prior to the incident. On the day of incident, the police posted 73 tweets but only two Facebook posts. The ten days after the incident resulted in posting of 38 Tweets and 18 Facebook posts. There were 1.3 tweets per day on Twitter on average, and 1.4 posts on Facebook but the difference was not statistically significant ( $p > 0.8$ ). Therefore, we observe that the Munich police department used Twitter and Facebook accounts at a comparable frequency in this period of routine use. That changed on the day of the shooting incident when Twitter posts significantly exceeded Facebook's: there were only two posts on Facebook compared to 73 tweets on the incident day. This corroborates the interview statement that police use Twitter more heavily during crises (see Figure 2). In the 10-day period after the shooting incident, the Munich police department continued to tweet slightly more than posting on Facebook (on average 3.8 tweets vs. 1.8 Facebook posts per day). The difference was, however, not statistically significance ( $p > 0.05$ ).

This analysis corroborates that the Munich police utilizes both Twitter and Facebook similarly in routine situations, but Twitter becomes the main tool of social media communication with the public in an emergency. Shortly after the incident, the Munich police department resumed its routine usage pattern of not using one social media channel more than the other.

Next, we analyse whether the department increased usage intensity of its social media channels after the incident. The volume of Twitter postings on the day of the emergency is significantly higher than the



10-day periods before or after the emergency. The average number of tweets before the emergency was 1.3, increased to 73 on the day of emergency and decreased again to 3.8 after the incidence. These differences are statistically significant ( $p < 0.001$ ). Twitter was also used in the 10-day period after the emergency (3.8 average) significantly more than in time preceding the shooting (1.3 average) ( $p < 0.05$ ). Therefore, the police department started using Twitter more intensively in the 10-day period after the emergency compared to the 10-day period before it (i.e., in a “routine usage” period).

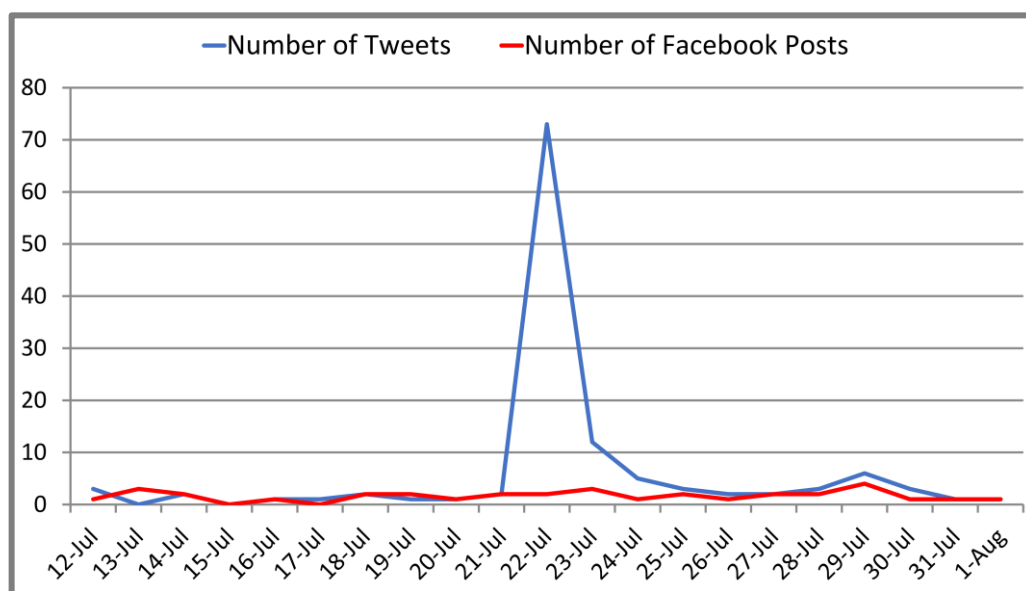


Figure 2. Number of Facebook posts vs. Tweets around the time of the shooting incident.

In contrast to its Twitter use, the frequency of Facebook postings by the Munich police department did not change much around the time of the shooting incident. There were only two posts on Facebook shared by the Munich police department on the emergency day. The minor increase in the daily average of posts from 1.4 (before the incident) to 1.8 (after the incident) was not a significant change in intensity between the 10-day periods before and after the event ( $p > 0.05$ ). The analysis also did not reveal any significant difference between the daily average use of Facebook before the emergency period (1.4), on the day of shooting (2) and after the emergency (1.8) ( $p < 0.001$ ).

Based on the above findings, we conclude that the emergency situation increased Twitter usage intensity both on the day of the incident and shortly after, whereas it did not affect its Facebook use significantly.

#### 4.4 Analysis of the change in public reaction to shared content

RQ2 probes public reactions (comments, shares, likes) to content shared by the Munich police department over Twitter and Facebook around the time of the shooting incident. Figure 3 illustrates the social media intensity of the followers of the Munich police department’s social media account in this period, in which a logarithmic scale was applied to the data in order to show the data with large outliers and to ease the comparison. Because of page limits, we provide only a summary of the statistical results of our analysis here. The total number of reactions on Twitter increased significantly after the incident compared to the period before. While the Twitter account experienced an average of 3.9 comments per day before the shooting, this number increased to 103 comments per day on average, excluding the shooting day. The mean retweets per day before the shooting was 30.9, which increased to 1368 after the incident. Before the shooting, there were 75.4 likes per day on Twitter on average, and after the shooting, the mean increased to 3291. All differences were found to be significant (Mann-Whitney U test,  $p < 0.01$ ).

The intensity results showed an increased number of likes and comments on Facebook after the shooting – although much lower than the increase on Twitter – but no significant change in the number of shares.

Facebook posts by the Munich police department received significantly more comments after the shooting compared to before (96 vs. 548) ( $U=15$ ,  $p<0.01$ , Mann-Whitney U test). Although the average number of shares increased about five times after the shooting, the difference was not statistically significant ( $U=29$ ,  $p>0.5$ , Mann-Whitney U test). Average likes on Facebook per day increased about ten times after the incident (510 vs. 5109) and this difference was statistically significant ( $U=21$ ,  $p<0.05$ , Mann-Whitney U test).

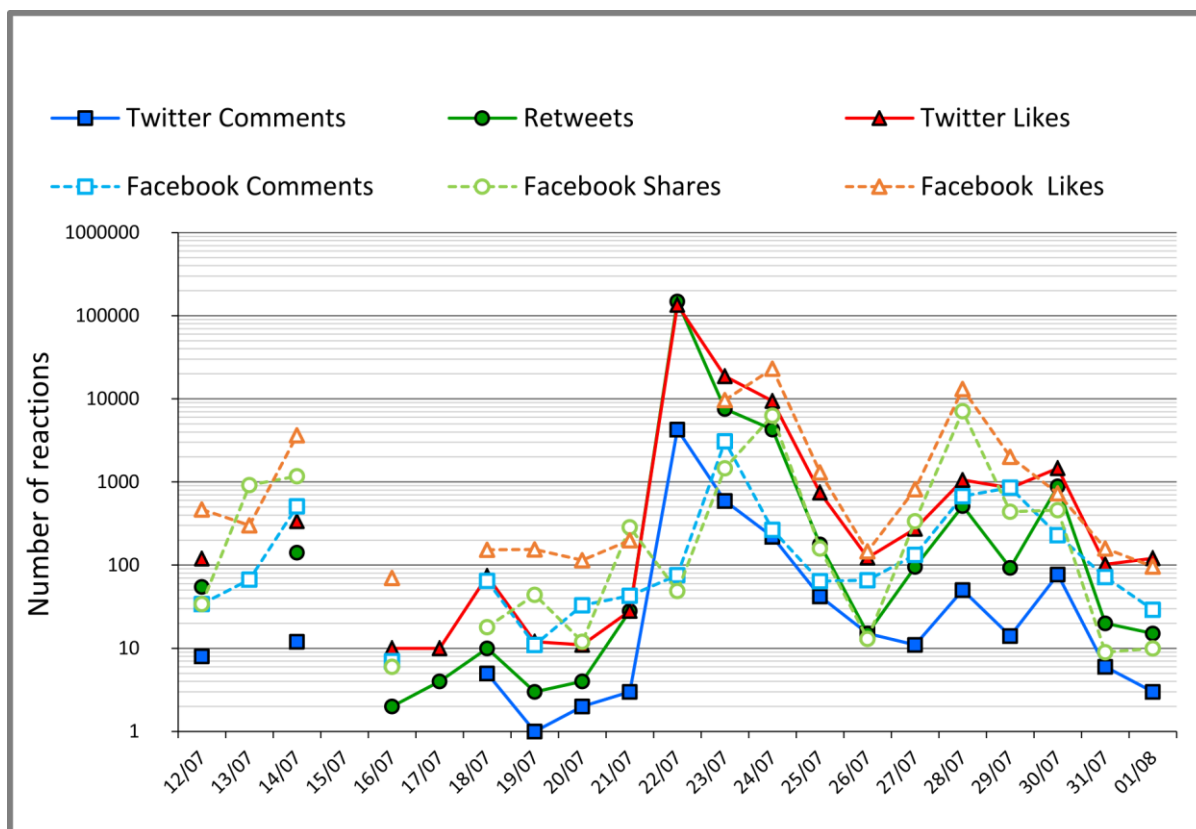


Figure 3. Analysis of public reactions to content shared by the Munich police department around the time of the shooting incident.

The increase in public reactions on the incident day on Twitter compared to the day before was enormous. There were 1426 times more comments than the day before, 5319 times more retweets and 4815 times more likes. Each tweet received on average 39 times more comments, 145 times more retweets and 131 times more likes. The increase in public reactions on Facebook was, on the other hand, almost negligible: It received on average 1.8 times more comments on each post than the day before, 2.9 times more likes and the number of shares even dropped 5.8 times compared to the day before despite the emergency.

In contrast, public reaction increased considerably on Facebook the day after the incident, while it decreased for Twitter: there were on average 27 times more comments, 19.8 times more shares and 11.1 times more likes on average. Twitter on the other hand, generated only 84% of comments on average than of the day of the rampage, 31% of shares and 85% of likes. Nevertheless, compared to the day before the shooting, the average rates per tweet were still much higher: About 33 times more comments, 45 times more retweets, and 112 times more likes.

To summarize, we observed a very significant rise in reaction intensity on Twitter on the incident day. On the following days, the number of reactions on Twitter gradually decreased, but still remained higher than in the period before the shooting. The rampage did not result in a significant increase in reaction on Facebook on the day of the incident but the following days brought more reaction. People responded

to Facebook posts significantly more after shooting, apart from shares, but this difference was not as striking as with Twitter. Two press conferences on the day after the incident were shared on Facebook, and were viewed by 284K and 199K users; another one three days after had 97K number of views, which helps to explain the increased usage of Facebook after the shooting incident.

In addition to an increase in messaging intensity, we also noted a secondary and very significant impact on the number of police followers. Before the event, there were about 79K followers on Twitter, which increased to about 197K followers the day after the incident, to 200K three days after the incident, and to 205K 19 days after the incident – an increase of 159% in the number of followers. Word of mouth likely led to this huge influx of followers, which may indicate widespread public perception that the police were a timely and accurate source of information about the emergency.

#### **4.5 Successful Practice Themes**

Finally, we respond to the third research question concerning how the award-winning social media crisis communication activity of the Munich police department serves as a successful practice example. As the department had no formally documented set of social media guidelines, we identified a set of themes exemplifying their social media activity. Table 1 includes examples of tweets from the department that illustrate each of the successful practices. The data in the first column were extracted from the interviews, collected documentation, and analysis of tweets.

*Creating awareness about an acute emergency as soon as possible* is an essential element of emergency communication for the Munich police department. Although the department is aware that posting a warning in an acute situation increases insecurity on the part of the public, warning the public is a key responsibility of the police relative to assuring public safety. Failure to do so could have resulted in more severe consequences, according to the social media director of the police (Schillat, 2016). Communication should be made through factual messages. The aim is to transmit transparent, neutral, objective facts even if they could cause some anxiety. Use of *hashtags* supports the quick distribution of the messages.

It is also important to *show empathy*. This is especially necessary when people feel isolated, which is common during emergencies. The public appears to trust messages from the police more than from strangers, especially when it concerns their security. Empathy gives people confidence that they are not alone. The aim is to communicate with the public that the police are working very intensively on the incident. Related to the tone of the message, choice of language is also important. Although the main language used by the Munich police department on social networks is German, the *multilingualism* of the citizenry as well as the presence of tourists and other non-residents should also be considered and addressed in communications. In cases where traditional media channels may not function effectively, public transportation may not work, ambulances and thousands of police officers are on duty, it is especially unnerving for those who cannot understand the local language and are unfamiliar with local safety practice.

In routine times, a posting by the police goes through a strict control protocol, as errors are not always reversible. Nonetheless, information overload becomes exhausting in emergencies, often resulting in considerable delays in *being responsive* and/or a reduction of decision quality. With about 100 user interactions per minute on Twitter directed at their organization (Selle, 2016) and a total of 65,000 Tweets, posts and comments (Böhm, 2016), it took the social media team almost two weeks to answer all of them after the shooting rampage (Hallo München, 2016), as this volume far exceeded the team's capabilities. The team is mindful that it cannot easily add officers from other departments without any previous training due to the highly sensitive nature of their task, yet they know that additional trained manpower support is absolutely necessary to handle peak times, as in emergencies. Furthermore, handling the pressure of responsibility requires considerable skill and practice. Training other police officers and bringing them in for support during emergencies is one of their planned measures for the future.

Illustrative of the importance of multilingual communication is the first serious incident that occurred locally after the Munich police department started using social media channels (Akkaya et al., 2018). As part of their in-crisis outreach, the police tried to use social media as their communication mechanism

with the public. Altogether, there were around 200,000 tweets within the first 12 hours and about a total of 72,000 people wrote to the police on social media about this event. The police disseminated 18 English tweets, 16 French tweets and a Turkish tweet related to the most critical communication, warning the public about the rampage, requesting them to stop sharing photos or videos, and identifying of the perpetrator.

Successful Practice Themes for Social Media Communication	Example Tweets from the Shooting Rampage in 2016
<i>Create awareness about a crisis as soon as possible</i>	+++ATTENTION+++ Stay clear of the area around the #OEZ – Stay inside your homes. Leave the streets!+++ (07:05 PM, July 22, 2016)
<i>Use hashtags to enable quick dissemination</i>	ONCE AGAIN: Do not post any videos or pictures of the police force in action! Do not help the perpetrators!! #munich #oez #shooting rampage (08:20 PM, July 22, 2016)
<i>Be empathetic</i>	Finally, the most important thing: Our thoughts and prayers are with those who have been killed and injured during the attack as well as their families and friends #shooting rampage #munich (05:12 AM, July 23, 2016)
<i>Use Multilingual Crisis Communication</i>	S'il vous plait restez á la maison á munich, pas dans les rues! #münchen, #oez, #schießerei (08:22 PM, July 22, 2016) <i>English Translation:</i> [Please stay in your home in Munich, do not go out to streets! #Munich #oez #shooting rampage]
<i>Be quick and responsive</i>	@Cinderssssss We have no doubts concerning the authenticity of the video showing the attacker in front of the restaurant (12:03 PM, July 26, 2016)
<i>Cope with rumors</i>	Other crime scenes than Hanauerstraße still cannot be confirmed #shooting rampage #munich #oez (09:25 PM, July 22, 2016)
<i>Apply consequences for intentional spread of false information</i>	Persons who start these rumors are in for a nasty surprise. The investigations are underway. (04:45 PM, July 23, 2016)
<i>Be open and honest</i>	The situation at the #OEZ and the #shooting rampage remains unclear. There have been several injured persons. As soon as we know more, we'll share additional information. (07:13 PM, July 22, 2016)
<i>Provide assistance</i>	Important phone number: The information and service centre for the next of kin of victims and missing persons (GAST) can be reached at 0800 7766350 #shooting rampage #munich #oez (09:46 PM, July 22, 2016)
<i>Show sovereignty</i>	ONCE AGAIN: Do not post any videos or pictures of the police force in action! Do not help the perpetrators!! #munich #oez #shooting rampage (08:20 PM, July 22, 2016)
<i>Build public trust during crisis</i>	Strong police presence in the whole city. We're eagerly searching for the perpetrators. Avoid public spaces! #Munich #shooting rampage #OEZ (08:18 PM, July 22, 2016)
<i>Maintain public trust after crisis</i>	For now, everything that's important has been said. We'll calmly continue our investigations with the BLKA [State Criminal Police Office]. The BLKA will also be responsible for the public reports from now on. (09:31 PM, July 23, 2016)
<i>Present facts to the public after the crisis</i>	We are preparing a press conference for about 2 o'clock in our media center. #shooting rampage #munich (01:02 AM, July 23, 2016)
<i>Acknowledge support</i>	It is still our concern to thank all the fire brigades and rescue workers who supported us yesterday! #Rampage #munich (01:55 PM, July 23, 2016)
<i>Thank the public</i>	Thank you for your positive response in countless comments. Be assured that the police are very happy about it. (09:33 PM, July 23, 2016)

Table 1. Successful Practices used by the Munich police department for Crisis Communication.

When faced with suspicious postings, people got anxious and contacted the Munich police online for verification. For example, 73 shootings were reported to the police during the rampage from different parts of the city even though it occurred in a single location. Misinformation also spread about the use of helicopters by the police, which was untrue. Munich police check accuracy both online and in person but at the same time the number of tweets or retweets of a rumor can rise exponentially in seconds. Thus, it becomes a huge challenge to *verify or counter rumors* in the shortest possible time (Selle, 2016).

Rapid *provision of assistance* information by the police during emergencies is critical to keep the public calm. Delays in provision of information create anxiety and may cause extensive panic among the public. Thus, depending on its criticality, the police may choose to share unverified information with the public while underscoring its ongoing verification status, in order to *be open and honest*. For example, the department first assumed this was a terror attack based on other recent incidents in European cities and announced at 8:42 pm an “acute terror situation” for the city, which was not the case (tz, 2017). In the initial phases of the rampage, the police tweeted about the possibility of three perpetrators having long guns, although it was later verified that there was only one who did not have a long gun. Acknowledging the need for faster verification of information in crisis situations, the Munich police department is working on an internal messaging service, to permit share certain images and videos of the incident only among police (Dyckmans, 2016).

*Showing sovereignty* and calling for order when necessary are critical because the official police department of the city is the only entity with this mandate (Selle, 2016). If members of the public are spreading unverified information – which may turn out to be misinformation or purposefully incorrect stories – serious consequences may result. To minimize incident escalation, police pursue a legal strategy to *deal with intentionally false reports*. If an incorrect message is determined to be deliberate, the post may generate financial consequences and also be considered a criminal act (Schillat, 2016). Furthermore, the misuse of social media platform for hate speech, cyberbullying or political messages results also in criminal liability.

Police are aware that community engagement and support is essential, especially in emergencies. Raised awareness among Internet users and classic media channels is essential to control distribution of incorrect information, and to avoid unnecessary panic and anxiety. For instance, the police do not use private messaging services such as WhatsApp, which turned out to be an important source of misinformation in the shooting rampage. According to the speaker from the press department (Selle, 2016), propagators of such information do not consider the potential consequences of their behavior and delight in spreading fear. Although not blaming social media for the problem (n-tv.de, 2016) he argued that many Internet users are not yet ready to use social media (Spiegel, 2016). Moreover, he considers traditional media to be more careful and sensitive in word selection in emergency communications (Spiegel, 2016). He notes that, around the time of the shooting incident, traditional channels used words such as ‘maybe’, ‘could be’ in expressing speculation; however, the public tends to overlook such words in emergencies and interpret them as they have actually happened.

The public’s reaction to police handling of this event was recognised by the awards the department received after the incident. The positive reaction demonstrates the credibility and messaging quality exhibited by the police in their communications with the public. This level of engagement not only promotes citizen participation and community engagement but likely *enhances the feeling of public trust* towards the police by increasing responsiveness (Bertot et al., 2010). The police should continue their use of social media to *maintain that trust* after the conclusion of the emergency, helped by *acknowledging the assistance of other agencies* or organizations, and *thanking the public* for their cooperation and support.

## **5 Discussion**

Reinforcing public trust and confidence in the police, rapidly disseminating time-critical information to the public about impending dangers, and supporting crime reduction in cooperation with the public are among social media’s potential benefits (Xu et al., 2017). Being able to contact or interact with the police fosters the public perception of security during emergencies (Simon et al., 2015).

We examined police social media activity and the intensity of postings prior to, during and following a 2016 emergency in Munich. The shooting rampage was the first large-scale, deadly event in Munich in many years. Social media played a significant role in the high-profile police response, with both beneficial and adverse results. Overall, the rampage demonstrated a lack of public preparation for such events, which led to an ongoing feeling of insecurity in the city. This study demonstrated how social media helped the police department address the insecurity and expand its image as purveyor of trusted and timely information.

As one of the few studies to analyze social media usage behavior of police departments, this research makes some valuable contributions to research and practice. We found that routine interaction is conducted using both Twitter and Facebook, which is necessary to achieve other policing goals, such as enhancing community policing and supporting transparency. We demonstrate that although there were no significant differences between routine Facebook and Twitter usage intensity, Twitter became the main communication tool during and shortly after the emergency. This discovery also confirms interview findings that these social media platforms are used for different purposes.

This study provides useful insights concerning the management of social media in emergency situations in the context of a police force. We noted several successful practice themes in crisis communication of the Munich police department, which was highly praised for their effective use of social media channels during the studied incident. We observed that the dependency of the Munich population on police social media messages drastically increased during and after the shooting incident. Specifically, the public sought out police postings on this easily accessible and rapidly shared media, as predicted. The public preferred Twitter's speed of messaging during the terror incident, and partially moved to Facebook once the event ended. As the value of this media for communication was established during this incident, the number of followers grew, promoting social media's role as an essential police resource.

This study has a number of limitations. First, our data is collected only from one emergency incident in Munich so the findings may not be generalizable. Considered a safe city, this event remains the only emergency incident in recent times resulting in widespread harm, limiting our ability to examine multiple emergency situations in this location. We observed successful practices from this specific case, which should be tested in other geographical contexts in order to substantiate findings that would be generalizable to other parts of Germany, the EU or the world. In addition, our analysis is based on a limited number of interviews. Additional interviews were not feasible in the timeframe and given the legal restrictions of the situation.

We suggest further research to confirm the findings during other emergency events in Munich and in other cities in Germany and elsewhere. Beyond local comparisons, the literature would certainly benefit from studies observing the impact of other cultural and regulatory factors on the social media usage of police departments. In our future research, we aim to examine German police use of social media by applying other data mining techniques on the published content. Another promising research direction would be to study the choice of crisis-response strategy that is dependent upon predictability of the cause of the crisis (Coombs, 1995), such as consideration of its controllability, locus and stability, as derived from the Attribution Theory (Russell, 1982; Wilson et al., 1993).

Social media has become essential in supporting the operational duties of a police force. Besides community policing, it contributes significantly to improving the image of the police department by providing a direct communication line with the public in their role as the authority of security. Further research is needed to better understand its contributions and limitations.

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