

An investigation of citizen's e-participation within Oman's police department Facebook page

By

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Abstract. Royal Oman Police (ROP) began its virtual engagement with the citizens by enforcing its presence in social media such as Facebook and Twitter. The purpose of this paper is to explore the type of information shared through Facebook by the Royal Oman Police and analyse the extent of citizen engagement through the ROPs Facebook page. This study collected data from 1st January 2019 to 11th June 2019 from the ROPs Facebook account and supported through content analysis and statistical tests. The findings reflect that ROP had posts under 18 categories and the highest number of posts were on safety advice for the citizens, followed by the awareness sessions organized for schools, universities and other institutions. The citizens interacted virtually on the Facebook page by demonstrating likes, shares, and comments for the posts. This study contributes to providing detailed insights on the type of information exchanged between ROP and citizens. The results of this study can be used for developing strategies in increasing citizen engagement as part of Oman's development plan of building smart cities.

Keywords: e-participation, social media, Facebook, police.

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1 Introduction

Law enforcement agencies have adopted social media strategies for expanding their scope of communication and benefiting from the breadth and depth of its influence (1). Social media is a powerful tool that provides platforms for people to establish interact and also provide information about the individual's social life. Tang and Liu (2) classify the different forms of social media as blogs (Wordpress), forum (Epinions), media sharing (YouTube), microblogging (Twitter), social networking (Facebook), social news (Reddit), social bookmarking (Diigo) and wikis (Wikipedia). Law enforcement agencies are increasingly using social media to interact with communities and also collect information required for criminal investigation.

Social media is known for its four major strengths that include collaboration, empowerment, participation and time (3). Organisations and local governments have been increasingly using Facebook sites for official purpose to reach out to customers as they live online (4). Police departments acknowledge the potential of social media and are using it to enhance citizen input to police investigations, establish and strength its image, use it as a tool to control crowds and crisis and encourage input in policy-making processes (5).

Mergel (6) identifies four different social media strategies being adopted by the government agencies which include: push, pull, network and tactic strategies. Under the push strategy, the governments only broadcast information through the web content and there is no interaction. The pull strategy demonstrates the government attracts citizens to or users to provide information and usually limiting the level of interaction with them. The networking strategy exhibits high interaction whereby the government actively or passively participates in networking with the diverse constituencies. The final tactic strategy encompasses government services with actual transactions being implemented through social media applications. Thus, when government agencies choose to apply a social media strategy it also needs to anticipate citizen's social behavior and also be proactive in adopting technological trends.

Sultanate of Oman has begun its smart government initiatives under the hegemony of the Information Technology Authority. 'Omanuna' has been introduced as the official Oman eGovernment Service Portal which maintains all the eParticipation platforms for government agencies. It manages 64 social media accounts of various government entities. In comparison to the Arab region and the world, Oman is ranked 2nd and 43rd respectively in the 2018 eParticipation index(7). The ranking was a significant improvement to the 2016 position where it stood at 33rd position in comparison to the world reflecting that the government placed a special emphasis on the effective utilization of eParticipation channels and establishing contact with the public.

Meijer and Thaens (5) point out that the police departments are distinct from the other government operations. The police are in contact with all citizens and have diversity in their communication. The use of social media has been extensively investigated however very limited research exists that explores how police use social media and interact with the public (8). One of the noteworthy extant literature that explored the usage of Facebook and Twitter by seven police departments in the USA suggested that the contents of the information posted had an impact on how citizens interacted with

them (9). Lieberman et al. (8) investigated Facebook posts of 23 largest US police departments over three months in 2010. The findings suggested that departments with a high posting frequency shared more crime-related information whereas those with a low posting frequency shared more public relations information. Another research investigated Canadian police Twitter usage as a response to the 2011 Vancouver Stanley Cup riot (10). The Canadian police used media to garner citizen cooperation, gather evidence and mediate communication for community involvement.

There is a dearth of research that explores the social media content from the police perspective. World over police departments are adopting social media strategies to connect with the community, thus there needs to be a systematic evaluation on the extent and purpose of why social media is being used by the police. To have a grasp on the potential of social media for the police department, this research specifically focuses on the Facebook page of Royal Oman Police. The central research question that this research investigates is: what type of information does the Royal Oman Police send through its Facebook and what is the extent of citizen engagement through the Facebook page.

The article is structured into the following sections. Section 2 addresses and discusses the literature review related to e-participation related studies for the government entities and police department. Section 3 describes the research methodology adopted to investigate the research question. This is followed by section 4 that presents results and discussion of the study. Finally, section 5 is on the discussion, implications, and recommendations related to the results of the research.

2 Literature Review

As the world is moving to a more internet-based environment where people are becoming more connected, the law enforcement agencies in many of the countries have started using social media as a powerful platform for interacting with communities and collecting information for criminal investigations. Social media is used frequently by police departments to interact with the public and to get and provide information. Social media is helping the police departments to gather information for the effective deployment of resources and existing practices. The police agencies can get a feel of community sentiment about their policies, procedures, and practices. Good police-community relations are vital for developing trust between citizens and police. The use of various social media helps the police departments to build community ties which in turn improves the people's trust in police.

A study was carried out by Dai et al. (9) to systematically examine and analyze the varieties in the use of social media by traditional American local police departments and their interactions with citizens. The study collected data between October 1, 2013 and March 31, 2014 from Facebook and Twitter accounts of seven city police departments in the area of Virginia in the USA. Content analysis and text mining were used to identify the patterns of social media posts by police departments, and then statistically analyzed citizen interactions on social media with the police. The authors have applied a commonly used automated text analysis approach to analyze textual contents

in Facebook and Twitter posts (11). The authors also observed that during the six-months of study there were a total of 1,293 posts and tweets on Facebook and Twitter for the seven agencies under observation and every agency had at least one post on Facebook or Twitter a day. The study used a number of Facebook likes and Twitter followers as indicators of community interaction with the police agencies. The findings of the study proved that there was a lot of variation in the way citizens interact with police on social media. It was observed that people on Facebook did more on networking as they visited the Facebook page of police agencies to like posts about the agency and police officers and provided some comments. However, people on Twitter tried to get access to information they like from the police Twitter sites such as general information required for everyday life, weather updates etc. The study finding had important implications for the police agencies to attract more citizen interaction for effective functioning. It was observed in the study that the contents of information play an important role in citizen engagement and interaction. The authors had recommended police agencies to adopt a problem-solving approach and analyze which category of information on their social media would likely to promote citizen interactions. The authors have suggested future research on how the citizen interchanges view with the police departments through social media will give more insight into the understanding of people's expectations and perceptions on policing.

Recently, the use of social media by governmental agencies has been considerably increased. For example, Mossberger et al. (12) state that 92.4 percent of local governments in USA has a Facebook page and 87 percent of the municipalities in the USA were active on Facebook by 2011. A study conducted by Bonson et al. in 2015 shows that all German local governments have a Facebook page (13). The study by Ellison and Hardy in 2014 shows that the majority of local governments in UK uses Facebook and Twitter to interact with people (14). Bertot et al. state that the use of social media by governments began as a way to improve transparency and openness and also highlighted collaboration, participation, empowerment and time as major potential strengths of social media (15).

Bellstrom et al. (16) conducted a study to identify the type of information exchange that happens between a local government and its citizens using social media. The research involved a qualitative single case study of the Facebook page of the Karlstad municipality in Sweden. The authors have used content analysis on Facebook data collected between May 2015 and July 2015 to find out different categories that determine the analysis. The frequency of content category proves that the municipality has used the Facebook page to promote different happenings in the municipality while the page users were asking questions to the municipality. The research involved analyzes of the type of information disseminated through the Facebook page of local government, the type of information received through the Facebook page of local government and the relation between the type of information communicated on Facebook page and the engagement between the government and citizen. The authors have suggested further study on motivational factors of posting comments and community engagement.

Al-Aufi et al. (17) examined the perceptions of Omani citizens towards the use of the government's social media for participatory and interactive relationships. Mainly

the study investigated and explained the views of social media users on the transparency, engagement, responsiveness, and trust about the use of social media by the Omani Government. The study found that even though the citizens are increasingly accessing the governmental social media, governmental departments are not utilizing social media effectively and failed to engage citizens to design and deliver more collaborative and efficient services. The major emphasis of the study was to strategically frame the use of participatory social media by the governmental departments for interactive governance.

According to Warren et al. (18), the governmental departments have been obliged to listen and engage with citizens as the citizens are empowered by the use of social media. The study states that governments are now expected to regulate and professionalize their engagement with citizens through social media platforms.

Gohar Feroz et al. (19) explored Twitter usage by Korea's central government by classifying Twitter-based networking strategies into G2C and G2G which are Government to Citizen and Government to Government respectively [10]. The authors investigated the nature of networking and social media interaction strategies of the Korean government by analyzing the tweets of 32 ministries. The results found that Korean government institutions have made extensive use of Twitter in their daily interactions with the public, but their networking strategies did not necessarily motivate the public to participate in their social media activities. The research findings indicated that the ministries focused more on addressing the needs of the citizens rather than an increase in the number of followers.

Police departments in many countries have started using social media sites widely as the main method of communication with people. Liberman et al. (8) performed a study on Facebook messages posed by 23 police departments in USA over a three month period during 2010. The researchers used content analysis and the result finding indicates that the content pattern was related to the frequency of department's Facebook postings to some extent. Crime-related messages were posted by the police departments who have used Facebook more frequently and the departments who have used Facebook less frequently have posted mostly public relations messages. The researchers also analysed the policy implications of these trends in posting messages.

A study conducted by Sadulski (20) states that Twitter and Facebook are frequently used by police departments to inform the public about crime incidents. The study also informs that police department and other law enforcement agencies can improve community trust through transparency in communication with citizens. The police departments use Facebook and or Twitter for informing the public about progress in case investigations.

According to the Law Enforcement Use of Social Media Survey, Law Enforcement Agencies use social media for a wide variety of purposes (21). The survey results show that 91 percent of enforcement agencies use social media for notifying the people about safety concerns, 89 percent use social media for community outreach and engagement with citizens and 86 percent use social media for public relations and managing reputation.

Unlike the developed countries, those have utilized the advantage of social media in increasing the trust and transparency of governments, the governments in Arab countries use social media mainly for news broadcasting and updating information (22).

As per the reported information from the Omani National Center for Statistics and Information (23), almost 50 percent of the public uses social media regularly in Oman. The report also states that people with Higher Educational Qualifications use social media more frequently than people with lower education levels. According to the report, even though the Information Technology Authority (ITA), Oman has been promoting e-government and e-services through “Digital Oman Strategy”, the use of social media by Omani Governmental departments remains unregulated.

3 Research Methodology

This study uses the case study approach (16, 24) that involves content analysis of the Facebook usage of the Royal Oman Police (ROP), Sultanate of Oman. This approach is suitable as it explores the understanding of a complex and contemporary social phenomena.

3.1 Data Collection and Coding

This study uses the manual data collection of Facebook content. A web content analysis is used to explore the Facebook posts for the period 1st January 2019 to 11th June 2019. This period is chosen to investigate the communication by the ROP during the year that includes the month of Ramadan. During the holy month of Ramadan, Muslims abstain from eating and drinking from dusk till dawn. Sultanate of Oman is one of the Arab countries that has mandated reduced working hours for certain categories of employees (25). The period of study makes it unique as the activities are different for the citizens, residents, and tourists in comparison to other times of the year.

The steps observed for investigating the posts are illustrated as follows:

1. Identification of the official Facebook page of ROP;
2. The capture of the Facebook posts in the period 1st January to 11th June 2019;
3. Codes being assigned to the posts based on the content and media type
4. Exploration of the engagement rate of the posts
5. Analysis of the post types, purpose and engagement rate

In line with the prior literature, Netvizz service is being used to collect data from the Facebook page (16, 26, 27). Netvizz is a Facebook application that can archive the page activity by delimiting it based on the number of posts or a time interval. This research uses the latter approach to cover the specified timeframe as identified above. The page consisted of 43 posts by the ROP, 37 comments and 738 reactions. The data was collected on 13th June 2019.

The research followed the approach advised by Miles and Huberman(28) to use a ‘first list’ of codes generated by the extant literature (9). The first list of codes is used before reading the actual data and is modified and expanded based on content analysis. The coding took place using seventeen classifications that included: crime information,

law enforcement, asking for tips, crime prevention, safety advice, community interaction, community events, traffic updates, agency-related information, recruitment, other government services, information sharing, holiday greetings, non-police related, advertising and road conditions.

The data coding and analysis were performed using three steps. Step 1 involved coding by the first author using the first list of codes and any subsequent inductive modification. Step 2 involved coding by a second co-author and also two graduate students not affiliated with the study to ensure the reliability of the coding process. Step 3 as the final analysis led to clarification of category names. A Cohen's Kappa inter-rater reliability score of 80 percent was found for the co-author's results for the categorization. This reflects a substantial agreement between the two coders and is also consistent with the findings of Williams et al. (29).

The framework of Bonsón and Ratkai(30) was adopted to investigate the stakeholder engagement on the ROP's Facebook page. The framework is evaluated using three metrics that reflect popularity (P), commitment (C) and virality (V). All three metrics are aggregated to calculate the overall engagement score. The metric components are discussed in Table 1.

Table 1: Stakeholder engagement metrics for Facebook

Popularity (P)	
P1 (Percentage of posts liked)	Number of posts divided by total posts
P2 (Average number of likes per post)	Total likes divided by total number of posts
P3 (Average number of likes per post per 1000 fans)	(P2 divided by number of fans) multiply with 1000
Commitment (C)	
C1 (Percentage of posts commented)	Number of posts commented divided by total posts
C2 (Average of comments per post)	Total comments dividend by total posts
C3 (Average number of comments per post per 1000 fans)	(C2 divided by number of fans) multiply with 1000
Virality (V)	
V1 (Percentage of posts shared)	Number of posts shared divided by total posts
V2 (Average of shares per post)	Total shares dividend by total posts
V3 (Average number of shares per post per 1000 fans)	(V2 divided by number of fans) multiply with 1000
Engagement (E)	
E (Stakeholder engagement index)	$P3 + C3 + V3$

Source: Bonsón and Ratkai(30)

4 Results and Discussion

4.1 Classification of ROP Facebook posts

The findings of ROP Facebook posts collected from 1st January to 11th June 2019 are presented in Table 2. The Facebook page has a total of 29,558 followers as of 11th June 2019. A total of 185 posts are found in this period and based on content analysis these were classified various categories. A total of eighteen categories were identified to capture the information posted on the Facebook page. The highest number of posts were made by the ROP under the safety advice category that accounts for 39 percent. This suggested that ROP is using Facebook with a community orientation tactic and disseminate related information. This is an interesting finding in comparison to the study by Williams et al. (29) that suggested its two most common categories were traffic and accidents. Table 2 highlights that the second most important category of posts was related to ROP awareness sessions for schools which accounted for 14 percent. Also, a cumulative of 28 percent is assigned to all awareness session categories (exhibition, other agency, schools and university) that reflect that ROP is continuously involved with various sections of the community to educate them.

The posts also actively gave information on law enforcement and agency-related information. On average there were at least 34 posts per month which almost accounts for one post per day. Consistent with the findings of prior studies, the ROP tended to have no postings on information that was not related to the police unless it was to do with safety advice which was driven on religious account (9).

The safety advice posts were highest during the month of Ramadan. The post included a verse from the Quran that advocated safe driving practices. This strategy by the police was being adopted to reduce the number of accidents in the month of Ramadan as fatigue is attributed during fasting and it was one of the main reasons for fatal accidents. The safety advice posts also advocated child safety belts, car maintenance checks, tips on driving at night, avoiding phones while driving and tips on driving during rainfall.

Table 2: Classification of ROP Facebook posts

S. No.	Categories	Freq	%	S. No.	Categories	Freq	%
1	Event related	10	5.41	10	crime information	1	0.54
2	Exhibition Awareness	1	0.54	11	holiday greetings	1	0.54
3	Other agency awareness	18	9.72	12	information sharing	8	4.32
4	Schools awareness	26	14.05	13	law enforcement	12	6.49
5	University Awareness	6	3.24	14	non-police related	4	2.16
6	advertising	3	1.62	15	other government services	1	0.54
7	agency related information	12	6.49	16	road conditions	4	2.16
8	bus driver awareness	2	1.08	17	safety advice	72	38.92
9	competition	2	1.08	18	traffic updates	2	1.08

The school, university and other institution awareness posts communicated the awareness sessions conducted by the ROP to propagate traffic safety. Law enforcement category posts included information on the penalties imposed for wrongly overtaking, rash driving, speed limits, intentionally risking lives by crossing flooded valleys and allowable vehicle load. The agency-related information included information on their work timings, holidays, participation in events and meetings. The ROP posts also covered diversions on the roads and traffic updates in various other categories however at a lesser frequency.

Crime information category did not have many posts considering that it is one of the first job priority of the ROP. The avoidance of posts on crime-related information may be due to the sensitivity associated with it and a strategy to avoid creating a bad image. It might also be a source of unrest and the possibility of creating fake news in the future. This is consistent with the approach followed by the police in the USA on their social media as reported in by Williams et al. (29).

4.2 Citizens Interaction on ROP Facebook

Social media is a ubiquitous tool that allows its users to interact with one another in the virtual world. The ROPs Facebook page is also a tool for the agency to allow community interactions related to their posts. A follower gets the opportunity to 'like' the posted information, 'share' with other users or 'comment' on the posted information. Table 3 presents the citizen interaction on the ROP Facebook for the period 1st Jan to 11th June 2019.

Table 3: Citizen interaction on ROP Facebook posts

S. No.	Categories	likes	shares	comments
1	Event related	97	2	1
2	Exhibition Awareness	2	0	0
3	Other agency awareness	176	0	5
4	School awareness	223	6	4
5	University Awareness	76	2	0
6	advertising	102	1	9
7	agency related information	189	7	8
8	bus driver awareness	11	0	0
9	competition	16	5	0
10	crime information	53	0	14
11	holiday greetings	23	2	5
12	information sharing	119	2	5
13	law enforcement	300	25	24
14	non-police related	69	4	3

15	other government services	21	1	0
16	road conditions	73	2	6
17	safety advice	931	77	42
18	traffic updates	25	0	1
	Total	2506	136	127

The likes, shares and comments were classified for each of the eighteen categories. There were a total of 2506 likes, 136 shares and 127 comments (refer Table 3). The safety advice posts received the highest number of likes. This is also reflective of the fact that the highest number of posts were for safety advice. The law enforcement category received the next highest record of likes. This was followed by school awareness, agency related information and other agency-related awareness information. The findings of this study are partially consistent with Dai et al. (9) which also reported the highest number of likes for agency-related information and law enforcement categories.

Table 3 reflects the highest number of shares were again for the safety advice followed by the law enforcement categories. The remaining shares were negligible for the posts. The posts also garnered comments which were in the order of safety advice, law enforcement and crime information. In comparison to the number of followers, the citizen engagement has not been too strong with the posts on the ROPs Facebook page.

Table 4: Citizens engagement

	P1	P2	P3	C1	C2	C3	V1	V2	V3	E
ROP Facebook post	1	13.54	0.46	0.10	0.69	0.02	0.17	0.73	0.02	0.51

The overall engagement levels of the citizens with the ROPs Facebook post is represented in Table 4. The average number of likes per post per 1000 fans (P3) score is 0.46 which reflects on weak popularity. The average number of comments per post per 1000 fans (C3) is 0.02 considering that very few comments were made in the period of study whereas the average number of shares per post per 1000 fans (V3) was 0.02. The overall engagement level was only at 0.51. This indicator is useful to motivate the ROP in encouraging more citizen engagement.

4.3 Types of Facebook posts

Table 5 presents the statistics on the type of posts found on ROP Facebook page. Photos were used extensively for the posts and it accounted for a total of 96 percent of the 185 posts found over the investigated period. There were only about six videos and two links posted on Facebook.

Table 5: Types of ROP Facebook posts

Type	link	photo	video	Total
Freq.	2	177	6	185
Percent	1.08	95.68	3.24	100

5 Conclusion and Recommendations

This research contributes to the scarce literature on how police are using social media strategies and interacting with the public. This study uses content analysis of ROP's Facebook page. The findings suggest that there are 18 categories under which Facebook posts can be classified.

ROP is active in posting information daily by using more photos than links or videos which is consistent with the recommendation offered by He et al (11). The content analysis reflects that the posts were heavy titled towards the well-being of the community, therefore, there was a high percentage of posts that advocated safety. The ROP has also been active in community awareness programmes that catered to the schools, universities and other organisations. Citizens engagement in terms of (likes, shares and comments) was limited to the posts however in comparison to its followers the engagement is considered weak. Currently, the ROP Facebook posts can be termed as a push strategy as described by Mergel (6).

The practical implications of this research suggest that ROP can do better in improving its interaction with the community on social media. By reaching out to more people, the messages on public safety can be more effective. In line with the recommendation by Dai et al. (9), the ROP needs to adopt a more problem-solving approach to increase community engagement.

This study has certain limitations. The research is restricted for a few months and can be extended to cover a longer period. The investigation is limited to the Facebook account only and needs to also consider other social media such as ROPs Twitter account. The use of social media by the ROP and other government agency are set to promote Oman's commitment to building smart cities and thus it requires that strategies are set to encourage e-participation by the community.

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