Improving investigations through utilising technology, community and psychology: Engaging with Social Media and Citizen Enquiry

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Executive Summary

The project began by liaising with police forces to ascertain what issues concerning technology, community and psychology are currently the most important. It became clear that there are pressing questions with regards to how the police employ social media to engage with the public, and how to deal with evidence supplied by eyewitnesses who had investigated the crime using social media. To address these questions the research was divided into 4 distinct projects using a multi-method approach. Whilst one of the projects surveyed social media in general, the other three concentrated on Facebook. This was done partially based on discussion with the police and partly because of practical considerations.

Police engagement with the public through Facebook was studied using an online questionnaire, content analysis of 12 and narrative analysis of 2 police owned Facebook sites. The use of multiple research methodologies allowed for considerable scope in the specific questions and types of data that were included in the research. For example, the content analysis included social media use by a large number of forces and looked at overall types and frequency of use, whilst the use of narrative analysis allowed a detailed focus on the creation, challenge, revision and co-construction of knowledge on police owned social media sites, and on how identity is constructed and revised through networked narratives. Together with the survey of police and public use and perceptions of social media, this research offered an extensive analysis of policing and social media.

The online survey and content analysis projects both revealed significant variations in how social media is used by the police, and a growing discrepancy between what the public want and expect from social media and what the police are delivering. The survey revealed that the police appear to have a more positive view of how social media is currently used to engage the public, than the public do, who would prefer it be used to foster greater two-way communication including crime reporting. Evidence was found that witnesses are using social media to conduct their own citizen enquiries, and that the majority of policing personnel are not aware of current guidelines for handling this situation. The narrative analysis project found considerable evidence of "networked narratives" (Page, Harper and Froibinus, 2011) on police Facebook sites. Stories are contributed to in an a-

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synchronous fashion by many people, who revise the position and hence the identity of the initial posting put onto social media. In so doing important identity work is being done by a community, not just by the police organisation.

The impact of witnesses using social media prior to any involvement in a formal police investigation was studied using a random controlled trial experiment and through items on the online questionnaire. The experiment employed a 4x2 factorial design to incorporate conditions in which the perpetrator and/or an innocent suspect was viewed (plus a control condition in which social media was not used at all) and identification procedures in which the perpetrator was either present or absent from video parades. This approach, together with the use of a mock investigative paradigm (mimicking the experience of an eyewitness), makes this the first time this research question has been addressed experimentally.

The experimental project involved the successful development of an innovative method, and the results revealed new knowledge regarding human memory, both episodic memory and memory for faces. Analysis demonstrated that where a target face was present at test, that participants were able to identify it regardless of whether or not they had seen a similar face on social media. However, where the target was not present at test, participants were susceptible to unconscious transference effects and tended to select a face that they had seen on social media.

Overall, the current projects suggest that the public are increasingly unhappy with police use of social media. Importantly the public wish to use social media to report crime and communicate directly, yet police forces/agencies tend to see it as one-way, informal communication. At present, there is limited dialogic interaction between the police and the community on Facebook sites, meaning that new media are still being used like old media (i.e. just to release news, not to have a conversation). Police are unaware of existing guidelines on obtaining evidence from witnesses who have used social media prior to the formal investigation. Witnesses who use social media to conduct citizen enquiries prior to formal investigation are likely to contaminate their memory of the crime, and will identify an innocent suspect in a formal identification procedure if they have seen them before in social media.

Project 1: Survey of policing and public opinions of police/public engagement using social media

The survey revealed a telling difference between the police and public's view of whether the police engage effectively using social media. In answer to the question 'In your opinion, does your (local) police force engage with the public through social media effectively?', whilst 67% of police respondents believed engagement was effective, only 45% of the public did.

A follow-up question asked respondents to describe and methods that might make police/public engagement on social media more effective. The answers given by policing personnel tended to focus on procedural issues and information, rather than commenting on engagement per se. Examples of suggestions included:

- A home site on each platform (Facebook, Twitter etc.)
- A comms channel for all to reach us no matter what the multi media
- Using data to better target most likely victims, most affected areas and specific age groups will help us to be more direct in our information sharing
- Better insight into everyday operational policing; provide reassurance

In contrast, the responses from the public tended to focus on the need for two-way communication through social media, including communication into the more formal aspects of crime reporting and investigations. Examples of suggestions included:

- I wish the police would take discussions or notifications from the public on their groups/pages seriously… it was DISMISSED because it came to them via social media. When I telephoned 111 instead it was taken seriously
- Greater community inclusion on matters which directly affect communities. I consider social media is a way that people can be involved and helpful in many situations and especially reporting information on crimes.

The survey also included questions related to the use of social media in citizen enquiry, that is members of the public who had witnessed (including being a victim of) a crime using social media to investigate the event further. Of the 35% of public respondents who had witnessed a crime, only 6% had used social media to search for more information. These searches were aimed at finding the types of information routinely gathered in criminal investigations, including the following examples:

- 'name, address, photo, bits of evidence about their behaviour.
- 'New stories of past court appearances and convictions'
- 'Information on the perpetrator'
- 'I searched for the name'

Although only a small number of the public respondents reported conducting a citizen enquiry, nearly half (43%) of police respondents said they knew of an instance where a witness had used social media in a citizen enquiry capacity. This suggests that the use of social media by witnesses who later take part in a formal criminal investigation is currently a substantial issue. Further, the potential negative impact of citizen enquiry was demonstrated by the fact that 100% of the police respondents indicated that they believed that 'formal eyewitness identification procedures are COMPROMISED if a witness has viewed photographs on social media sites while searching for the suspect'.

PACE Code D was updated this year (PACE, 1984; Codes of Practice, 2017) to offer specific advice on social media identification, and guidelines issued by ACPO in 2014 include detailed instructions for dealing with witnesses who have made a potential identification of a suspect on social media. These include recording:

- What was shown on the screen which allowed the identification to be made?
- What was it specifically about the image that triggered the identification? (visibility of facial features, pose or actions of person in image etc)
- Was there any prompting from other persons present?
- How long was that screen viewed before the identification was made?

The survey included questions for policing personnel asking them about the effectiveness of current guidelines for dealing with witnesses who have used social media. No respondents thought that the guidelines worked 'very well' or that 'they generally work well and don't need much improvement', and likewise no respondents thought either that 'they don't work that well, and significant changes are needed' or that 'they are in need of a complete overhaul'. Instead, a quarter of respondents indicated that 'some aspects work well but changes are needed', whilst three-quarters replied that 'there aren't any procedures'. This suggests that the current guidelines are not suitably visible or known to policing personnel.

The 2014 ACPO Guidelines include the following statement (point 6):

- Although a social media identification may have its own difficulties, in principle it is no different to any other type of informal identification procedure, whether that consists of an accidental sighting, a street identification, seeing a picture on Crimewatch or by any other method.

Although research has been conducted into the potential contamination caused by viewing a suspect elsewhere, such as an accidental sighting and particularly in a mug-shot album, no research has yet been conducted into the use of social media. This means the statement made in the guidelines is not based on evidence. A key part of the current project was to conduct an initial, RCT study to determine what impact citizen enquiry using social media might have on a witness who also provides identification evidence as part of a formal investigation.

In summary, the police appear to have a more positive view of how social media is currently used to engage the public, than the public do, who would prefer it be used to foster greater two-way communication including crime reporting. There is evidence that witnesses are using social media to conduct their own citizen enquiries, and that the majority of policing personnel are not aware of current guidelines for handling this situation. The guidelines themselves are not evidence-based, suggesting a great need for further research in this area.

Project 2: Content Analysis of Police Owned Facebook sites

Communication between the police and the public is important for effective community policing; it offers members of the public a means of contributing to crime reduction and offering solutions to community problems, and fosters positive relationships between police and public (Greene, 2000; Kappeler & Gaines, 2009). The ACPO (2013) views social media as an important part of the police communication strategy, and believe it can be used to: assist the police with engagement, allow officers to respond to incidents in real time, and help to demonstrate greater accountability and transparency. The results of the survey suggest that although most forces maintain a social media presence on Twitter & Facebook, currently the police are struggling to meet these aims.

The aim of the content analysis is to examine activity on active police Facebook pages, measure the different communication strategies used, and assess how these relate to public engagement. To address these aims, posts from the Facebook pages of twelve police forces were sampled for a one-week period during June 2016. The week selected for analysis was unremarkable in that no major incidents, which might be likely to alter normal communication strategies (Kelly and Finlayson, 2015), occurred during this period.

An initial analysis of word frequency in the facebook posts was conducted and the results are shown in the word cloud in figure 1. The larger the word, the more frequently it was mentioned in the

Facebook posts.

Figure 1: Word frequency analysis of sample Facebook posts

Text was also analysed by coding the 'theme' of the individual posts. Each post was read for content and divided into categories: advice, alerts, offering information, missing, page updates, public relations, recruitment, and request for information. Some posts contained content in more than one category.

Across all forces:

- The most frequent themes were: requests for information from the public, offering advice (e.g. safety, crime awareness campaigns), offering information (e.g. about arrests, court cases etc.).
- Content classified as 'public relations' was also fairly common, though this theme appeared less prominent here than in an analysis of police Facebook sites in the USA by Liebermann, Koetzle, & Sakiyama (2013).

Between forces:

- There were large differences in posting frequency (though this is only a snapshot of activity during one week)
- The number of followers/comments/likes was not directly related to frequency/volume of posts. This is obviously influenced by other factors such as the population in the community served and the volume of responses may not be as important as the nature of the responses
- Departments may use facebook as only a part of SNS strategy – twitter posts may offer complementary information / meet other goals of police-public communication

Conclusions

The variation in posting strategies on FB across forces may reflect differing goals. E.g. If the goal is community engagement, infrequent PR posts may satisfy this aim more effectively than a greater quantity of posts offering information about arrests, crime etc.

The frequency of posts that include requests for information or offering advice appear to meet the community policing goal of engaging the public in activities that can reduce/solve crime. Similarly, PR posts involve public in non-adversarial interactions with police allowing this to function as a form of community engagement. However, after the initial thread was started, there were very few replies to comments from the public, making the communication one-sided, and suggesting that current police social media is limited in this sense; however the posts may encourage the public to engage through other pathways (e.g. crimestoppers, volunteering, open days, community events).

Project 3: Narrative Analysis of Police Owned FaceBook sites

The narrative analyses were carried out separately on a rural site and metropolitan site. This was for methodological reasons as narrative analysis is an in depth, qualitative technique that aims to look at the interactions within a particular context. In brief, the type of analysis carried out aims to explore how stories, or even fragments of story, can be used to achieve particular identity positions in conversations (in face to face or online environments). As such there was no intention to make comparisons across the two different forces. In order to manage the amount of data addressed analysis was only of the most popular story in the sampled week. Popularity was measured by the amount of public engagement (measured by summing comments reactions and shares).

Despite this separate analysis of the rural and metropolitan sites, some similar findings were obtained. Perhaps the most salient finding was that the police forces still tended to be using social media posts as one way interactions – i.e. to 'put out' information rather than to engage the community in an ongoing dyadic interaction. As a result while both forces would post stories, once posted the stories were then left to be revisioned and challenged by the commenting public and this ongoing shaping of the 'networked narratives' (Page, Harper and Frobenius, 2013) achieved a particular identity for the police forces in question.

This finding supports the suggestion of researchers in other countries (e.g. Brainard and Edlins, 2015) that new media still has a tendency to be used as if it were old media. For this reason it can be argued that whilst the advantage of avoiding the bias of traditional media (newsprint, newsrooms e.t.c) has been gained by police using social media (Lieberman, Koetzle and Sakiyama, 2013) the framing and repositioning role has now simply been passed over into the networked narratives of the Facebook community. It is suggested that both the opportunity for truly dyadic interactions that may underpin effective community policing, and the potential benefits of harnessing the opportunity for effective identity work are currently being missed on police Facebook sites.

An additional finding that was observed in both police force Facebook sites was that despite the neutral and professional postings that were posted by the police the contributions from the community were able to achieve a huge variety of identity positions for the police forces in question. While in both forces many comments positioned the police as being trustworthy and organized there were also more sinister positions regarding police identity created by the community in both cases. In the rural analysis (which focused on a story about a Lamborghini that had been seized) the police were re-positioned as being jealous, boastful, and conspiratorial. In the metropolitan story (about a missing person) the police were re-positioned as nannying and overprotective.

These findings in common across the two different Facebook sites suggest that these sites are doing powerful rhetorical identity work for the police, but that the networked story is currently in the ownership of the community, rather than the police. It is clear that the complexities of managing identity in online environments are myriad, and may require further exploration, and significant resource to be directed at their management. It will be fascinating to see how identity work is achieved for the police if, and when, more genuine online collaboration is achieved between police and the communities they serve.

Project 4: The impact of citizen enquiry using social media on police investigations

Identification by social media can have important consequences for the outcome of prosecutions, and has resulted in appeals in courts in the UK (e.g. *R v McCullough, 2011; R v Alexander & McGill, 2012*); Australia (e.g. *R v Crawford, 2015; R v Benfield, 2015*); and the USA (e.g. *State v. Soza, 2008*). Furthermore, the results of the survey sent to both members of the police and the general public, revealed that citizen enquiry using social media is a fairly prevalent phenomenon. However, despite existing policing guidelines in England, Wales and NI, which state ''Although a social media identification may have its own difficulties, in principle it is no different to any other type of informal identification procedure…" (ACPO Guidelines, 2014), no empirical research has been conducted into what impact searching social media may have on the evidence provided by a witness.

Although witnesses can obviously provide a great deal of information that is relevant and useful in a criminal investigation, perhaps the most important is identification evidence. To test what impact using social media might have on the accuracy of identification evidence, an experiment was conducted using the randomised controlled trial method. This consisted of three distinct phases, each mimicking the process of a witness seeing a crime through to attempting to make an identification at a visual identification procedure:

- Phase 1 – all participant-witness viewed a short film of a mock crime. This consisted of a man stealing a bag from two women who were talking at a social event.

24 hours later, two-thirds of the participants returned to take part in,

- Phase 2 – a fictional social media site (called Friend Face) was constructed that contained an events page for the social event that the two women were seen at in phase 1. As well as the events page, a number of profile pages were put together for the people that attended the event. Two versions of this site were constructed, one which contained a profile page of the perpetrator and another in which he did not feature. A third of the participants were allowed to search the site containing the perpetrator and a third used the site that did not contain his profile page. The remaining third were in a control condition which involved no interaction with social media. Participants in the groups who viewed social media were not given any feedback about the accuracy of their social media identification.

A further 7 days later, all participants returned to take part in,

Phase 3 – video identification procedures, in which half of the participants in each condition were shown a video parade containing the perpetrator (known as a Target Present parade) and half were shown a video parade that did not contain the perpetrator but did contain one of the people seen on the social media site (known as a Target Absent parade).

Social Media Identification

Of the 42 participants who were shown a social media site that included the perpetrator, 32 were able to correctly identify him on the Friend Face site, 6 said he was not present, and the remaining 4 picked an alternative individual. Of participants who were shown the social media site that did not include the perpetrator, 22 out of 39 correctly said the perpetrator was not present on the Friend Face site, but 17 of them falsely identified another individual. A chi square analysis showed that the accuracy of the social media identification was not related to accuracy on the subsequent PROMAT identification task for either Target Present [$\chi 2$ (1, N = 41) = .806, p = .369] or Target Absent [$\chi 2$ (1, N = 40) = .835, p = .361] lineups. In other words, an accurate identification from social media did not necessarily mean that the participant would accurately identify the perpetrator in the PROMAT lineup.

PROMAT Lineup Identification

Analysis of the decisions made by the participants that viewed the target present PROMAT parades revealed no statistically significant differences across the three conditions. In other words, if the suspect placed in the identification procedure was guilty then using social media did not appear to affect the likelihood that the witness would identify them [χ_2 (4, N = 61) = 2.132, p = .711 n.s].

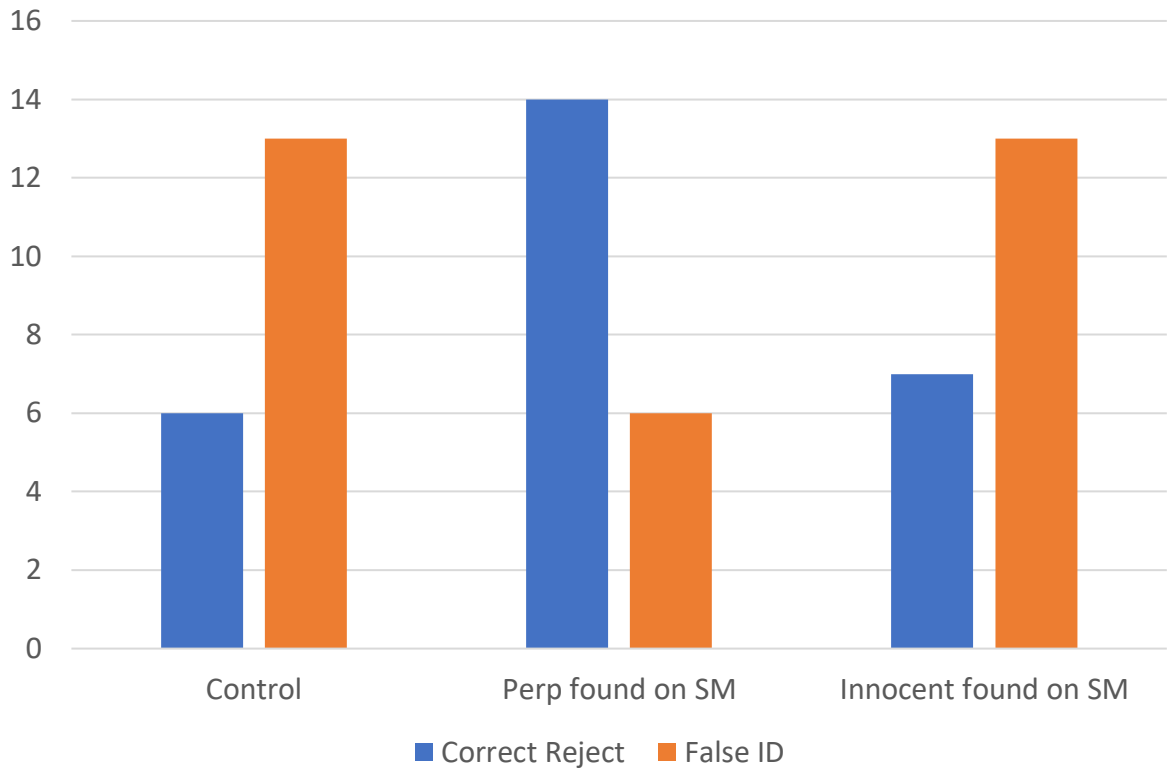

Figure 2: A comparison of correct rejections and false IDs for Target Absent parades by condition

For participants who viewed a target absent PROMAT identity parade, there was a significant difference between social media conditions [χ_2 (4, N = 59) = 9.644, p = .047]. Figure 2 shows the difference between correct rejections (correctly saying the perpetrator is not contained in the parade) and false IDs (choosing someone else from the parade) for each condition. Where participants viewed social media that contained the perpetrator (e.g. they were exposed to the real perpetrator a second time) they were less likely to make a false ID than in the other two conditions.

For participants who viewed social media that did not contain the perpetrator, the 'target' was replaced by a matched 'distractor' of similar appearance to the perpetrator, who was then included in the Target Absent PROMAT identity parade. Figure 3 shows that more participants who were exposed to the matched distractor on social media chose him from a target absent PROMAT ID parade than in the other two conditions, which suggests that the decision in the identity parade was influenced by the social media exposure.

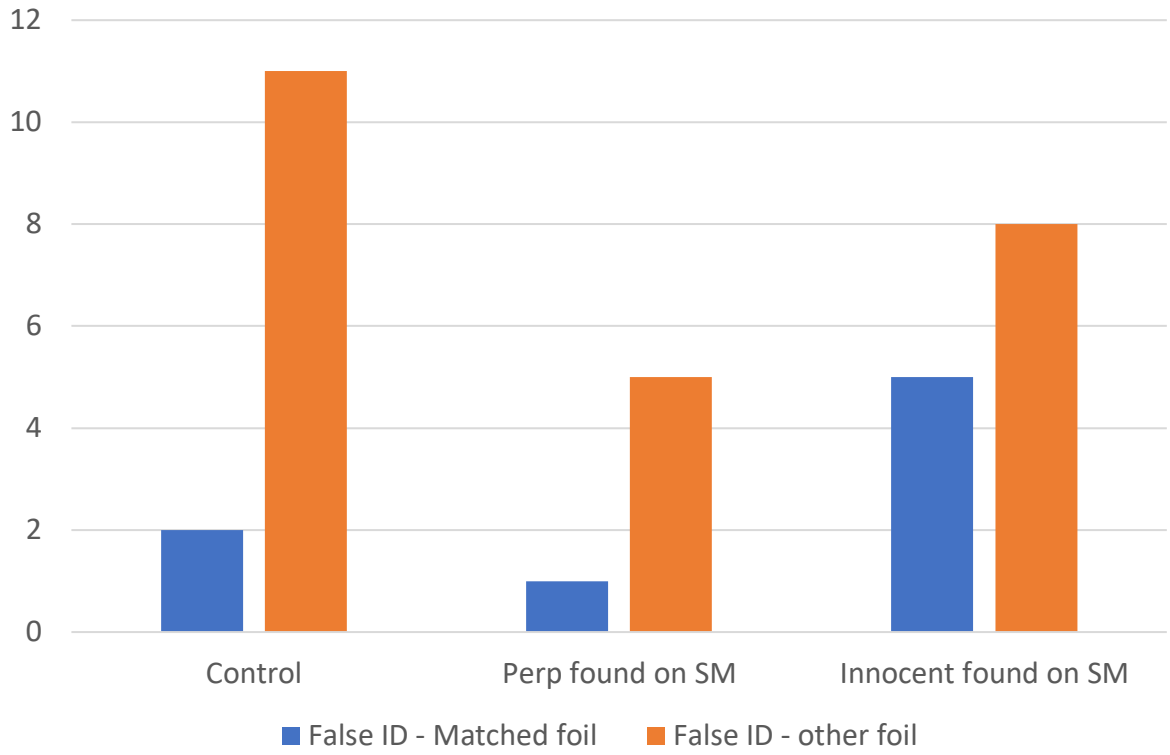

Figure 3: A comparison of false identifications (whether the matched foil or another foil was identified) for Target Absent parades by condition

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