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Wisdom of the (Private) Crowd: Helping Law Enforcement Crowdsourcing

By Jennifer Yang Hui

Synopsis

Crowdsourcing on private chat platforms taps into users' intrinsic motivations and social bonds, resulting in speedy solution to challenges. Law enforcement crowdsourcing efforts can benefit from these insights.

Commentary

ON 16 JUNE 2016, two Singaporean teenagers successfully stole apparel from a store at a popular shopping complex in Bangkok. They made their way to another mall but were apprehended shortly thereafter. They were recognised as their photos from the store's CCTV footage were disseminated to about 1000 shop owners in the shopping district by the store attendant through LINE, a social media messaging app.

This incident not only underscores the value of crowdsourcing to tackle crime but also how individuals are resorting to private networks on social media apps to solve common problems quickly.

In Search of Speedy Resolution

Although not a new phenomenon, crowdsourcing has been given impetus by modern ICTs, and in particular, social media. Indeed, social media has been used as crowdsourcing platforms, allowing crowdsourcing operations to reach a large group of people within a short span of time. Volunteers often respond to calls for problem resolution on social media, especially if it involves issues of interest to them. Social

media thus facilitates user communication and collaboration, all of which contribute to making better sense of the situation at hand.

The speed and in some cases, veracity in which the volunteers for crowdsourcing have been able to complete their tasks have proven astounding. Apart from the Bangkok case where the shoplifters were summarily identified, other noteworthy examples include the grassroots-led online crowdsourcing initiative (Kawalpemilu.org) to verify the results of the Indonesian presidential elections in 2014.

Although initial projection estimated that the task would require 1000 volunteers working one hour a day to verify the scanned copies of the election form, the 700 recruited volunteers were able to complete the verification process earlier than the projected time. Also, the incorporation of a crowdsourcing function in the OneService app in April 2016 has helped the Municipal Services Office in Singapore successfully identify the locations of abandoned supermarket trolleys.

In terms of law enforcement, many agencies have begun employing crowdsourcing in investigations in recognition of the speed at which crowdsourcing can identify suspects and provide information useful to investigations. For example, the Singapore Police Force regularly appeals for the public's help in identifying suspects on its Facebook page. The New York Police Department (NYPD) also actively leverages crowdsourced insights from social media in criminal investigations.

Intrinsic Motivation and Social Trust as Motivators

While conventional crowdsourcing often employs open/public platforms, a private platform via a closed chat group on LINE was used in the Bangkok case. The key advantage of using this approach is that individuals' intrinsic motivation as well as the social trust between individuals in the group chat can increase the speediness of responses.

Behavioural studies on crowdsourcing have shown that intrinsic motivation plays an important role in encouraging volunteer participation. An individual is more likely to actively contribute to the crowdsourcing initiative if he/she has a vested interest and major stake in the resolution of the issue. In the Bangkok incident, shoplifting clearly plagued the shopkeeper community, and as a result, all had an interest in minimising/resolving the issue. It also united them and encouraged active participation and timely responses.

Social networks within private chat groups also tend to be formed along primordial ties. Users are bonded together by social trust that encourages greater sharing of information than what they might otherwise do on a more open platform. In the Bangkok case, the network formed by the shopkeeper community was likely premised on friendship (made within the chat groups) and possibly even familial ties.

This suggests a less transactional relationship within the network overall. Primordial links embedded within private networks can therefore increase the likelihood of cooperation between users, which in turn, enables them to solve problems more quickly (e.g., identifying the thieves in the Bangkok case).

Crowdsourcing for Public Security

These behavioural insights suggest that inputs obtained from crowdsourcing via private chat groups can help law enforcement work. This can complement existing online reporting options such as the i-Witness function of the Police@SG app where users can report crimes and/or questionable activities to the Singapore Police Force (SPF). For example, a Facebook user, who learnt about counterfeit bills circulating in Hougang from a friend's private chat group, reported the incident on SPF's Facebook page.

Additionally online neighbourhood watches could be encouraged. For example new home owners in HDB estates sometimes establish private chat groups prior to moving in to discuss renovation, amenities, childcare and other related issues. Such groups often end up being neighbours when they do move in, and many keep the chat group active. Such groups can, in a way, function as an online neighbourhood watch keeping each other and the authorities informed about suspicious activities and/or individuals.

Insights derived from crowdsourcing private chat groups are expected to benefit from artificial intelligence (AI) and machine-learning technologies. AI could be used in conjunction with such crowdsourcing to improve risk assessments and horizon scanning, which in turn, help with scenario planning for crises, emergencies as well as fighting crime. For example, crowdsourced insights could help improve Fujitsu's security planning technology that uses AI to predict possible escape routes of a criminal on the run, which is envisaged to help in deploying police officers to intercept suspects more accurately.

At present, crowdsourcing is being used to train AI. For example, the Artificial Intelligence for Disaster Response (AIDR) refines its AI in real-time, using netizens who identify relevant tweets and text messages and teaching its engine to automatically recognise similar content in the event of future disasters. The key challenge, and where further research is needed of course, is to determine other ways to employ AI and crowdsourced human insights more collaboratively.

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