Rumor patterns on social media during emergencies

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A researcher at Ben-Gurion University of the Negev (BGU) has developed a new methodology to track and manage rumors during emergencies, and proposes guidelines for first responders and agencies on how to handle the rumor dissemination loop.

According to a recent study published in *Computers in Human Behavior*, BGU researcher Tomer Simon mapped 13 different rumors that were shared during Operation Brother's Keeper, an effort by Israeli emergency teams and the Israel Defense Forces to locate three kidnapped Israeli youth. The results showed that more than two-thirds (69 percent) of the rumors were found to be true. Moreover, journalists, military and emergency personnel participated in the dissemination of the rumors during the operation.

"Chat and social media apps like WhatsApp and Facebook have drastically sped up the pace of rumor proliferation during emergencies," says Simon, a Ph. D. student in the Department of Emergency Medicine, Faculty of Health Sciences, under the supervision of Prof. Avishay Goldberg and Dr. Bruria Adini. "The research was conducted in real-time to identify the rumors that had spread on WhatsApp in Israel, but mainly to trace their source and the people disseminating them."

Rumors by definition are bits of information that cannot be verified in real-time, especially when there is a strict gag order, as was the case during the operation. Despite this, many people accept them as true and share them further.

According to Simon, individuals who are immersed in emergency situations try to reduce their stress levels by searching for information concerning the event.

The public in Israel preferred to use WhatsApp to disseminate the rumors. In contrast to Facebook, it is perceived as significantly more private, and the messages conveyed as more trustworthy. The research showed that more than 40 percent of WhatsApp users in Israel were exposed to at least one rumor during Operation Brother's Keeper. Based on this study, Simon offers some specific lessons for first responders and official agencies.

1. Actively search for rumors and other information bits that are shared during emergencies in order to understand the public's information gaps.

2. Once rumors are recognized, actively push accurate related information to personnel, thus keeping them informed and ahead of the rumor dissemination loop.

3. Create Virtual Operations Support Teams (VOST), which are constructed of volunteers whose job is to monitor social media during emergencies. Through the use of VOST, the police, for example, will be able to tap into the social media stream through external volunteers that do not have to overcome the fear and trust barriers the police have with the public.

4. Do not use strict gag orders, as their effectiveness in the digital era is almost non-existent. Using gag orders creates the opposite effect and enhances and expedites the dissemination of rumors during emergencies.

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