

Chapter 8

Crisis Communication Strategies in the Age of Social Media: The Case of Volunteered Geographic Information

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ABSTRACT

Crisis communication in today's digital age, shaped by social media and Volunteered Geographic Information (VGI), has revolutionized response strategies. Social media-based VGI can enable rapid dissemination of information and foster two-way communication, empowering communities to report incidents, seek help, and share experiences in real-time. This transparency builds trust between authorities and the public, dispels rumors, and ensures adherence to safety measures. VGI can

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amplify the voices of those affected, humanizing crises and mobilizing support for relief efforts. However, using VGI requires careful verification and ethical considerations like privacy protection and combating misinformation. Techniques such as cross-referencing with credible sources and utilizing geolocation data enhance reliability. Collaborative platforms can streamline information exchange, facilitating efficient crisis response and volunteer coordination. Actionable updates with visual aids can improve public engagement.

INTRODUCTION

Social media presents a new landscape that has revolutionized how information is shared during crises (Bukar et al., 2020). The earlier form of media that was widely used during crises were television, radio, and newspapers. However, social media has made this process open to anyone who owns a smartphone and has access to the internet to share information with the public in real-time. Some of the tools that seem to be in operational use include micro-blogging sites such as X (formally Twitter), and Facebook, and map-based crisis applications such as OpenStreetMap among others. This shift has led to what has been termed as Volunteered Geographic Information (VGI) which is information on geographical location by common citizens (Goodchild, 2007). Experience has shown that VGI is an effective technology that can be applied for crisis response and its management (Ahmad, 2023, 2024; Anderson-Tarver, 2015; Haworth et al., 2012; Minghini et al., 2017).

VGI through social media platforms offers the possibility of frequent information dissemination and frequency of updates is particularly important in the course of a crisis as shown in Figure 1. Through social media channels such as Twitter and Facebook, and specialized crisis mapping applications it is possible to get frequent updates and may even surpass traditional media in speed. Figure 2 shows key social media platforms that can be used for crisis communication. Citizens on the scene may share what they witness, post photos and videos, and give an on-the-spot description of the situation in progress which is broader and more real-time. Secondly, the approach of VGI is decentralized, which means that more people can share their opinions and ideas about the crisis. This inclusivity also ensures that the information received is not only from the usual channels but also from people who are directly experiencing the crisis. Personal testimonies can reveal facets of the story that might not be covered by television or newspapers, which creates a more holistic picture. Furthermore, stand-alone crisis mapping applications such as OpenStreetMap or Ushahidi can help to develop dynamic maps that provide further insight into the development of the event (Jessica Pechmann & Claudio de los Reyes, 2023; Pánek et al., 2017). These maps can also display the positions of significant occurrences,

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