Understanding Sense-Making on Social Media During Crises: Categorization of Sense-Making Barriers and Strategies

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ABSTRACT

Individuals are increasingly using social media during crisis situations to seek information. However, little is known about how they utilize social media to gain an understanding of crisis situations. The aim of this study was to close this gap by conducting sense-making interviews with 18 German social media users. A qualitative content analysis revealed the following sense-making barriers: low information value, negative emotions, biased reporting, taking advantage, volume of information, limited knowledge, speed of information dissemination, and technical barriers. Furthermore, users applied the individual sense-making strategies of searching, selecting, verifying, enriching, interpreting, and sorting, as well as the collective strategies of distributing, communicating, and reporting. This article contributes to research by providing categorizations of sense-making barriers and strategies in the context of crisis situations. Furthermore, suggestions are made for how emergency agencies could utilize social media for crisis and continuity management.

KEYWORDS

Barriers, Continuity Management, Crisis Management, Information Systems, Sense-Making, Social Media, Strategies

1. INTRODUCTION

In crisis situations, a continuous flow of information is important for preventing the spread of anxiety and offering reassurance to the public. However, these situations are typically associated with physical damage to infrastructure and a rapid increase in data, which often leads to a breakdown of information and communication systems. In the past, social media platforms have proven to be effective communication channels during crisis situations due to their robustness, scalability, speed, and reach (Mills et al., 2009). Therefore, the use of social media for continuity management is becoming increasingly relevant for emergency agencies.
(Stieglitz, Mirbabaie, Fromm, et al., 2018). Furthermore, social media provide a rich source of information for people in crisis situations because everyone with a smartphone has the possibility of contributing information in the form of text, photos, or videos directly from the location of the crisis. Therefore, it is very common today for a crisis to be reported by an eyewitness on social media before officials or media organizations even start to publish status reports on the situation (Oh et al., 2011, 2010). Nevertheless, not only eyewitnesses use social media to provide crisis-related information but also other user groups such as professional news workers including journalists and media organizations, as well as authorities/officials including emergency agencies, government agencies and politicians (Ehnis et al., 2014; Mirbabaie et al., 2014; Stieglitz et al., 2017; Stieglitz, Bunker, et al., 2018; Stieglitz, Mirbabaie, & Milde, 2018). As individuals and organizations throughout the world are able to contribute information, social media usage allows for large-scale collective sense-making during a crisis (Starbird & Palen, 2012).

So far, the potential of using social media for crisis management has received attention in academia primarily in the field of Information Systems. For example, user-generated content from eyewitnesses can assist emergency agencies in making sense of a crisis before heading to the scene (Houston et al., 2015). In this regard, what impedes emergency agencies’ efforts to extract information from social media for sense-making has already been examined (e.g., Haworth, 2016; Hiltz et al., 2014; Mirbabaie & Youn, 2018; Plotnick et al., 2015; Reuter et al., 2015), and solutions in the form of tools or algorithms have been proposed to address these challenges (e.g., Ludwig, Reuter, & Pipek, 2015; Ludwig, Reuter, Siebigteroth, et al., 2015; Spinsanti & Ostermann, 2013; Unankard et al., 2015). However, the ways in which the public utilizes social media to make sense of crises and the barriers that they perceive have been researched to a lesser extent. Nevertheless, it is highly relevant for practitioners to improve their understanding of the public’s sense-making process on social media during a crisis. Currently, official institutions, such as emergency agencies and governments, are hesitant to adopt social media and use these platforms mainly to broadcast information to the public in times of crisis (Reuter, 2015; Reuter et al., 2016). However, a better understanding of the public’s sense-making in this context would enable officials to improve their communication strategies and ensure a continuous flow of valid information to the public. In addition, an improved understanding of how people use social media for sense-making and the barriers they perceive in this regard would enable social media developers to adjust their platforms to fit the sense-making needs of users in crisis situations.

Thus, this research was aimed at gaining insight into the sense-making processes of social media users during crises. Accordingly, the study was focused on identifying perceived barriers and applied sense-making strategies. The results are used to derive practical implications for developers of social media platforms and emergency agencies. The following research questions were developed for this study:

**RQ1:** What hinders individuals’ sense-making on social media during a crisis?

**RQ2:** What are the sense-making strategies that individuals apply on social media during a crisis?

The sense-making approach of Dervin (1983) provided the theoretical background of this research. In order to answer the aforementioned research questions, shortened micro-moment time-line interviews were conducted with 18 German social media users. Subsequently, Mayring’s (2014) qualitative content analysis approach was used to categorize sense-making barriers and strategies. The implications of these findings will be discussed with regard to crisis and continuity management.
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