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Amherst

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Authors	Van Winkle, Christine
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## Social Media Communication During a #Festival Emergency

### Introduction

World-wide, life threatening human-made and natural disasters are increasing (AccuWeather, 2013; UNEP, 2005; UNISDR, 2016). Loss of life and injury are threats faced by people during an emergency situation and even when life and limb are not at risk, the negative experience of a crisis situation can affect people long after the emergency has ended and recovery has begun (Everly Jr, Perrin, & Everly, 2008). Increasingly, researchers from varying disciplines are working with practitioners to develop emergency management procedures, communication plans, and training and recovery strategies, within their fields in order to minimize the negative consequences when disaster strikes.

Throughout this paper an emergency is defined as “a state in which normal procedures are suspended and extra-ordinary measures are taken in order to avert a disaster” (World Health Organization, 2002, p. 10). A disaster occurs when one “is confronted with sudden unpredictable catastrophic changes over which it has little control” (Faulkner, 2001, p. 136).

Within tourism studies, disaster planning and management are necessary as tourism is highly sensitive to the effect of disasters (Ritchie, 2004). Events and festivals (themed public celebrations) are important visitor attractions and make up a key component of the recreation industry within the tourism sector (Getz, 2012). Festival events and their visitors are particularly vulnerable during an emergency because of the event’s impermanence, irregularity, and location; as well as the visitor’s lack of familiarity with surroundings, distance from existing support networks and, on occasion, a lack of knowledge of the local language and culture (Sonmez, 1999). Festivals are also challenging from an emergency response perspective. During events there are often large groups of people, with no formal connection to one another in unfamiliar settings. As such, festival organizations must communicate with their attendees when an emergency erupts, as they may be the only source that is capable of reaching all stakeholders involved including attendees, performers, vendors, local emergency service professionals and the media. Festival and event emergencies are increasingly featured in the media. Within that last 6 months the global media has described a number of high profile event emergencies and dialogue about public safety at events is increasing (The Guardian, 2017). The tragic mass shootings during the Route 91 Harvest Festival in Las Vegas, Nevada being the most high profile example in the recent past (The Guardian, 2017B). Research is needed to understand communication during emergencies in order to plan for and manage emergency situations appropriately in the festival context.

Crisis communication is an established field of study and contributes to reducing injury and loss-of-life during disaster by ensuring the public has the necessary information to make good choices when confronted with an emergency. The rise of social media necessitates its integration into crisis communication (Liu, Fraustino, Jin, 2016; Pennington-Gray, London, Cahyanto, & Klages, 2011; Schultz, Utz, & Goritz, 2011; Schroeder, Pennington-Gray, Donohoe, & Kioussis, 2013). Social media crosses three levels of communication including the micro (interpersonal), the meso (local media), and the macro (national media). Evidence suggests that social media may help information to flow across levels allowing users to get information from many levels quickly (Liu, Fraustino, & Jin, 2016). It is important to recognize that not everyone is on-line or uses on-line communication during a disaster; however, given the rise in social media adoption, communicating in this space cannot be ignored and research has found that social media use by the public increases during crises (Pew Internet & American Life Project, 2006). Much of the crisis communication research to date has focused on how organizations use social media to deliver information during a crisis with less research examining public social media use (Takahashi et al ., 2015). Research that does exist highlights that during a crisis, information sharing through social media can lead to misinformation spreading at an alarming rate that is difficult to control even once correct

information is available (Crawford and Finn 2015; Starbird et al 2014). The complexity of communicating on-line during a crisis requires evidence-based best practice solutions for practitioners.

A challenge faced by communicators during an emergency is how best to integrate social media communication with tradition media. The Social Mediated Crisis Communication Model (SMCC) (Jin, Liu & Austin, 2014) offers guidance. This model demonstrates that organizations must communicate with social media influencers, follower and social media inactives (Jin and Liu, 2010). Limitations of this model are: its focus on a single organization; lack of insight into how various organizations relate on social media; and how influencers can be identified and used effectively.

The vast majority of social media crisis communication research focuses on the on-site emergency period with less attention given to the pre and post emergency period. By neglecting these times we limit our understanding of the full extent of the disaster experience (Crawford and Finn, 2015). The Crisis and Emergency Risk Communication Model (CERC) used by the Centers for Disease Control demonstrates the role of communication before, during, and after event (Reynolds, B., Seeger, M.W., 2005; Panagiotopoulos et al. 2016).

**The broad purpose of this research is to understand how people and organizations communicate on social media before, during and after an emergency by examining the different purpose, nature and patterns of posts that emerge from the different cases.**

There are important limitations to studying crisis communication on-line that must be considered. First, social-media can be ‘noisy’ with many voices sharing a common space. Certain voices may rise above others, while other voices are not heard. (Madianou, 2015). There is some evidence that many people prefer inter-personal communication (texting, calling) rather than social media (posting, sharing on social media) when communicating during a disaster (Madianou, 2015). As such, social media communication should never be considered in isolation but should be integrated as part of the larger communication plan to ensure all stakeholders have access to critical information.

## **Method**

The research was exploratory and broadly examined social media communication before and during a festival emergency. To understand how festival organizations, attendees, and other influencers communicate about an emergency on-line during a crisis, recent festival emergencies were identified. News media were reviewed to identify 2 recent (past three years) large-scale festival emergencies. The goal was to select a human-induced, and a natural disaster.

To be selected as the cases for this project:

- 1) The emergency / disaster had to disrupt the festival operation.
- 2) The festival cases selected needed to have been present on social media platforms examined in this study (twitter).
- 3) One of each type of disaster (natural, human-made) were be included

Based on these criteria the following cases were selected: ZombiCon 2015 and Shambhala 2017. Shambhala Music Festival 2017 was selected because during the 2017 event there were wild fires present in the region. The risk presented by the fires led to an evacuation alert which resulted in the festival cancelling the final evening of the festival. This annual ticketed outdoor electronic and live music festival in British Columbia, Canada attracted approximately 19000 attendees. The region has been prone to wild fires.

ZombiCon 2015 was a street festival in Fort Myers Florida where attendees dressed in zombie costumes and watched bands and DJs perform. This event attracted over 20000 attendees and had multiple access points. Attendees were asked to make a donation to “Pushing Daizies” artists charity to access the event.

During the 2015 event there was an active shooter on-site that resulted in one person dying and 6 people with incident related injuries. The annual event has since been cancelled.

## Analysis

Conventional content analysis (Hsieh and Shannon, 2005), using NVivo software, examined the content of posts made in the 8 hours leading up to the emergency and the 8 hours immediately after the emergency. The timing of the emergency period was determined by the project team based on the timing of the emergency reported in the media and the first posts related to the emergency/disaster appearing on Twitter. The tweets were pulled using Twitters developer access and a custom API.

Initially the tweets using the most general # identifier was selected. For Shambhala this was #Shambhala and for ZombiCon this was #ZombiCon. It is well known that many # may be used by a single event. To reduce the chances of duplicate tweets being included in this study and facilitate the identification of content codes only these # were initially examined (subsequent analysis will include multiple # for each event). Content analysis involved coding the posts according to various characteristics (who posted, intended audience, emergency related, response required), their nature and purpose. The purpose of the social media content refers to the user's intention for posting whereas the nature is how the user attempts to achieve their purpose (MacKay, Barbe, Van Winkle & Halpenny, 2017). Initial categories of posts (nature and purpose) were based on the literature and reviewed by the project team to ensure they accurately capture the range of posts in a sample of posts from a third festival emergency. This was an iterative process that continued until consensus was reached among all project team members about the categories used for classifying the data (Dey, 2005). The final nature categories used were conversational, informational, promotional, status, phatic and unclassifiable which are the same categories used in past research. The purpose categories included information sharing, information seeking, engaging with others, expressing emotions/opinions and other. The expressing emotions/opinions was a category added based on the iterative coding process undertaken in this study.

## Findings

In total 438 tweets were examined across the two festivals (see table 1)

Festival	Tweets before	Tweets during	Total tweets
Shambhala	260	89	349
ZombiCon	38	51	89

Descriptive findings revealed that posts made regarding the Shambhala festival were predominantly from unknown sources (80%). This category was used if it was unclear whether the posts were made by festival, another organization, or an individual. Individual posters were the next largest group (10.6%) followed by organizations (including the festival) (8.3%). The vast majority of posts were presented to a general audience (98.3%) with less than 1% of posts directed at a particular person. Most posts were related to the emergency (83.4%) with 14.3% unrelated and 1.4% unclear. Most posts did not suggest a need for a response (96.8%) with fewer than 1% requiring a specific response (.3%) and 2 were unclear. With regards to purpose, most posts were sharing information (95.7%) followed by engaging with others (1.4%), expressing emotions (2.6%) and information seeking (.3%). With regards to the nature, most posts were informational (81%) with some posts inviting conversation (4.9%), or phatic (an expression or exclamation) (7.2%). Only a minority of posts were promotional (4%) or unclassifiable (1.7%).

Coded data were imported into SPSS for further analysis. The chi-square statistic was used to understand the relationship between posting time and the content of the posts. Because of the large number information sharing posts, data were re-coded as information sharing or not. Timing of the post was not significantly related to whether or not the post was informational or not  $X^2(1, N= 349) = .988, p=.320$ .

Timing of the post was significantly related to purpose of the post in this case  $X^2(1, N=349) = 6.391$ ,  $p=.011$ . Because the expected count was less than 5 in one cell Fisher's Exact test was also examined and showed Exact sig (2-sided)  $p=.028$ . While there was a significant relationship the effect was small ( $\Phi = .135$ )

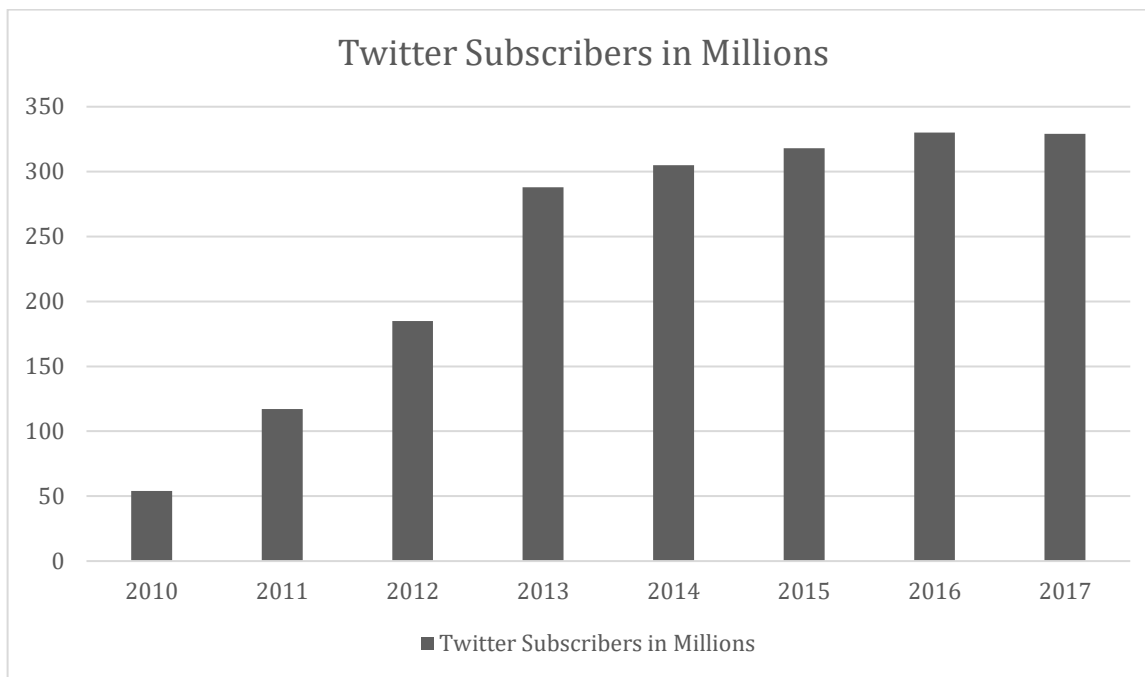
Descriptive findings reveal that posts made at the ZombiCon festival were predominantly by individuals (69.7%), followed by organizations (10.1%) and unknown (11.2). Most posts were to a general audience (87.6%), with only 3.4% directed at friends and none directed at organizations. In total 39.3% of the posts were related to the emergency, while only 37.1% were not (14.6% were unclear). Most did not seek a response (89.9%) and only one sought a specific response to their post (1.1%) (9% were unclear). Many posts were information sharing (36%) with fewer posts engaging others (24.7%), expressing emotions/opinions (15.7%) and other content (14.6%). The nature of the posts was most often informational (38.2%), followed by conversational (28.1%), phatic (10.1%), unclassifiable (10.1%) and promotional (7.9%).

Chi-square statistic was used to understand the relationship between posting time and the content of the posts. Timing of the post was significantly related to whether or not the post was focused on information sharing or not  $X^2(1, N= 89) = 18.62$ ,  $p<.00$ . While posts before the emergency were mostly content other than information sharing, the posts after were mostly information sharing. The effect size was moderate ( $\Phi = .457$ ). In this case, the timing of the post was significantly related to purpose of the post  $X^2(1, N=899) = 17.618$ ,  $p =.000$ . The effect size was moderate ( $\Phi = .445$ ). An examination of the frequencies shows that posts after the emergency began were more informational than those prior to the emergency.

## **Discussion**

While the festivals studied and the emergencies that erupted were quite different there were some consistencies in the twitter feed across both festivals. In both situations there were a range of people / organizations posting and sharing each other's posts highlighting Liu, Fraustino, and Jin's (2016) observation that social media is particularly useful because of its ability to integrate the individual, local and national flow of information. It was common for the posts to be aimed at a general audience rather than a particular individual. People were providing general information related to the emergency that was not intended for anyone in particular but instead was to share information. Very few posts across festivals suggested the need for a response, instead people were offering information. That most people do not seek a response to their post is helpful information for practitioners. People are not seeking answers to questions but rather sharing information they have access to. This suggests that during an emergency those responsible for communicating with the public should focus on releasing timely and accurate information that can be easily shared. When overseeing twitter activity during an emergency, communicators should focus on looking for misinformation rather than questions that need a response. Given people's active information sharing, if misinformation begins to be shared this can spread quickly and often out paces corrected information (Crawford & Finn 2015; Starbird et al., 2014). Within the Shambhala case there was evidence of this potential when the evacuation alert was shared via twitter. There was some confusion about the expectations during an alert rather than an evacuation order. Quick clarification by emergency officials ensured that it was clear that the festival grounds did not need to be evacuated during the alert.

Sharing information that is believed to be factual or historical is the predominate use of Twitter after an emergency has happened on site. While these types of posts are present before the emergency they dominate once the emergency is underway. A post by post review of the tweets reveals that re-tweeting and sharing content from official posts is a common practice once the emergency is underway. Since the introduction of twitter adoption rates have climbed substantially (see figure 1)



Statista (2018)

The festivals studied took place 2 years apart from one another and in that time Twitter grew by 25 million monthly active users. It is not clear if the difference in number of tweets available for the data collection period of each festival was influenced by the changing nature of twitter, the profile of the festivals, the # used to collect data for the this study or the nature of the emergency. This is a question that will be addressed as this research advances to include more # for these festivals and more festivals experiencing different emergencies.

Another element of the cases selected was the timing of the emergencies and how they unfolded. The ZombiCon shooting took place late at night. This means that many people had already left the event by the time the incident occurred and the initial post incident period took place in the middle of the night likely limiting the about of tweeting by the general public. The Shambhala festival was affected by wild fires that had been burning in advance of the event and so there was continuous tweeting about the situation leading up to the official tweets indicating that shows would be cancelled on the final day of the festival. On twitter, the discussion about the cancellation didn't take hold until the evening and so again the emergency period was overnight limiting the about of twitter posts. Future research will look to examine emergencies that take place during peak festival periods as twitter use will likely be more intense and different patterns may emerge.

## Conclusion

This research provided preliminary insight into the nature and purpose of posts on-line during a festival emergency and how this information travels through social networks. While the data presented here is limited in scope (number of festivals and emergencies) insights about social media communication are gleaned and provide some case examples useful for consideration in training professionals. Knowledge gained will facilitate the development of realistic crisis communication best practices, models, and emergency planning and training tools. The next steps in this research are to included broader range of events and develop a model based on existing literature (SMCC and CERC). Findings from this research will be used to train festival studies students and practitioners. Specifically, emergency management training scenarios will be developed in two platforms: Chatter and Chatbook. These platforms mimic actual social media platforms but are closed to the public and so can be used to train people how to respond on social media during a crisis. If accepted to the ideas fair the training tools developed will be available

on 2 iPads running Chatter and Chatbook so that attendees can see how tweets assessed in the research described are used in the training tools developed.

## References

- AccuWeather (2013, November 14). Steady increase in in climate related natural disasters. Retrieved from <http://www.accuweather.com/en/weather-blogs/climatechange/steady-increase-in-climate-rel/19974069>
- Crawford, K., & Finn, M. (2015). The limits of crisis data: analytical and ethical challenges of using social and mobile data to understand disasters. *GeoJournal*, 80(4), 491-502.
- Dey, I. (2005). *Qualitative Data Analysis*. London: Routledge.
- Everly, G., Perrin, P., & Everly, G. (2008). Psychological Issues in Escape, Rescue, and Survival in the Wake of Disaster. *Mental Health*, 12(1), 21-30.
- Faulkner, B. (2001). Towards a framework for tourism disaster management. *Tourism management*, 22(2), 135-147.
- Getz, D. (2012). Event studies: discourses and future directions. *Event Management*, 16(2), 171-187.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, 15(9), 1277-1288.
- <https://www.theguardian.com/uk-news/2017/may/24/terrorists-see-reason-in-madness-of-targeting-public-events>
- <https://www.theguardian.com/us-news/2017/oct/02/absolute-mayhem-britons-las-vegas-describe-terror-panic>
- Jin, Y., Liu, B. F., & Austin, L. L. (2014). Examining the role of social media in effective crisis management: The effects of crisis origin, information form, and source on publics' crisis responses. *Communication research*, 41(1), 74-94.
- Liu, B. F., Fraustino, J. D., & Jin, Y. (2016). Social media use during disasters: How information form and source influence intended behavioral responses. *Communication Research*, 43(5), 626-646.
- MacKay, K., Barbe, D., Van Winkle, C. M., & Halpenny, E. (2017). Social media activity in a festival context: temporal and content analysis. *International Journal of Contemporary Hospitality Management*, 29(2), 669-689.
- Madianou, M. (2015). Digital inequality and second-order disasters: Social media in the typhoon Haiyan recovery. *Social Media+ Society*, 1(2), 2056305115603386.
- Panagiotopoulos, P., Barnett, J., Bigdeli, A. Z., & Sams, S. (2016). Social media in emergency management: Twitter as a tool for communicating risks to the public. *Technological Forecasting and Social Change*, 111, 86-96.
- Reynolds, B., & W. SEEGER, M (2005). Crisis and emergency risk communication as an integrative model. *Journal of health communication*, 10(1), 43-55.
- Ritchie, B. W. (2004). Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry. *Tourism management*, 25(6), 669-683.
- Schroeder, A., Pennington-Gray, L., Donohoe, H., & Kioussis, S. (2013). Using social media in times of crisis. *Journal of Travel & Tourism Marketing*, 30(1-2), 126-143.
- Schultz, F., Utz, S., & Göritz, A. (2011). Is the medium the message? Perceptions of and reactions to crisis communication via twitter, blogs and traditional media. *Public relations review*, 37(1), 20-27.

- Sönmez, S. F., Apostolopoulos, Y., & Tarlow, P. (1999). Tourism in crisis: Managing the effects of terrorism. *Journal of travel research*, 38(1), 13-18.
- Statista (2018). Number of Monthly Active Twitter Users. Retrieved from <https://www.statista.com/statistics/282087/number-of-monthly-active-twitter-users/>
- Pennington-Gray, L., London, B., Cahyanto, I., & Klages, W. (2011). Expanding the tourism crisis management planning framework to include social media: Lessons from the Deepwater Horizon Oil Spill 2010. *International Journal of Tourism Anthropology*, 1(3-4), 239-253.
- Starbird, K., Maddock, J., Orand, M., Achterman, P., & Mason, R. M. (2014). Rumors, false flags, and digital vigilantes: Misinformation on twitter after the 2013 boston marathon bombing. *iConference 2014 Proceedings*.
- Starbird, K., & Palen, L. (2011, May). Voluntweeters: Self-organizing by digital volunteers in times of crisis. In *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 1071-1080). ACM.
- Takahashi, B., Tandoc, E. C., & Carmichael, C. (2015). Communicating on Twitter during a disaster: An analysis of tweets during Typhoon Haiyan in the Philippines. *Computers in Human Behavior*, 50, 392-398.
- United Nations Environment Programme (2005). Disasters and Conflicts. Retrieved from [http://www.unep.org/pdf/UNEP\\_Profile/Disasters\\_and\\_conflicts.pdf](http://www.unep.org/pdf/UNEP_Profile/Disasters_and_conflicts.pdf)
- United Nations Office for Disaster Reduction (2016) Disaster Statistics. Retrieved from <https://www.unisdr.org/we/inform/disaster-statistics>.
- World Health Organization. (2002). *The world health report 2002: reducing risks, promoting healthy life*. World Health Organization.