

## CHAPTER 10

# 'WHEN THE LEVEE BREAKS': RECOMMENDATIONS FOR SOCIAL MEDIA USE DURING ENVIRONMENTAL DISASTERS

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### ABSTRACT

*Using and understanding social media in the context of networked publics enhances crisis communication. This chapter describes models and ideas for integrating social media into the communication strategies of rescue organisations. The authors develop their recommendations for the use of social media by these organisations from both a summary and comparison of communication processes during the 2013 Central European floods in Austria, and from the perspective of*



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*an organisation actively using social media in the chosen model region of Alkoven. The chapter presents basic recommendations, recommendations inspired by content strategy and recommendations based on web and social media literacy in order to support the further development of crisis communication in the digital age.*

**Keywords:** Crisis communication strategies; social media integration; environmental disaster; rescue organisations

## INTRODUCTION

Environmental disasters such as floods, earthquakes or tsunamis often affect large regions and many people simultaneously or in quick succession. Emergency response teams do not just have to deal with disaster relief. As crisis communicators, rescue organisations, the authorities and journalists face the challenge of communicating with many different people, affected victims, and organisations at the same time. As a result of the increase in social media use for news consumption in recent years (Newman, Fletcher, Kalogeropoulos, Levy, & Kleis Nielsen, 2017), there are currently more possibilities than ever before to inform the public about events related to environmental disasters. Furthermore, the increasing popularity of social networks and social media has not only changed the way people get their information; members of the public can themselves now take an active part in crisis communication. The dialogical features of social networks, such as the option to react to a post and discuss the published content directly with the author/s and others, provide users with different ways of interacting: ‘When social network sites emerged, people were given a new structure for connecting to those around them’ (boyd, 2015, p. 1).

In the light of these developments, we shall focus on the 2013 Central European floods in Austria. Concentrating on social media, we shall discuss the communication of rescue organisations when managing the crisis during this particular environmental disaster. The floods provide an interesting emergency case: this was not only one of the worst flood events in recent years, but it can also be seen as a landmark in crisis communication in Austria. For the first time, social media and other online platforms played a key role in flood-related communication about this event.

The findings of the case study (see Chapter 7) revealed new flows of information because of the emergence of social media and online platforms; with a significant number of flood-related conversations containing monitoring and verification issues, and rumours. Social media were scarcely utilised by institutional actors such as the public authorities or rescue organisations, since these media had not been extensively introduced, and crisis management actors were barely prepared for strategic social media communication. However, those responsible for official communication and the traditional media played an important role. Social media presented a challenge to key communicators; institutional actors, in particular, remained sceptical of social media use and content. They still do not exploit fully the potential of social media in crisis communication.

With regard to their communication strategies, key crisis communicators need to ask which channels and strategies are appropriate for efficient online and social media communication, and how these interact with traditional communication activities. In this chapter, we discuss both our understanding of social media in networked publics, and crisis communication models which differentiate between actors. Following on from this, we describe our research design and give a summary of the most important empirical results regarding the floods. We focus on our chosen model region, Alkoven, one of the municipalities in Austria that was most affected. We go on to integrate these findings with the more general results already extensively presented in Chapter 7. Based on our theoretical framework and empirical results, we develop recommendations for social media crisis communication during environmental disasters with a focus on rescue organisations. In the last section, we provide concluding remarks and bring the discussion up to date by discussing developments since 2013.

## THEORETICAL BACKDROP

### Understanding Social Media and Networked Publics

In recent years, social media have become platforms for mediated articulation; they are often used for expressing views on everyday topics and have now become important forms of media, especially in the construction of new types of publics, with the implication this has for the whole media

sphere. Personal relevance plays an essential role in social media use as it defines the informational value of a message. Moreover, so-called Internet publics have emerged; these are groups that are usually formed by linked conversations across platforms and networks (Katzenbach, 2016). We refer in particular to the concept of ‘networked publics’ (boyd, 2010) to gain a better understanding of the role of social media within contemporary communication structures:

*In short, I contend that networked publics are publics that are restructured by networked technologies; they are simultaneously a space and a collection of people. (boyd, 2010, p. 41)*

By emphasising its socio-technological foundations, boyd stresses the innovative character of networked publics. This resides mainly in their ability to reproduce and transmit information swiftly, as well as in the extensive use of digital structures they make. The emergence of networked publics sparked an intense debate on how the public sphere is changing and how it can be remodelled. One concept used in this debate is the ‘personal publics’ model. According to this model, information is: (1) selected according to individual relevance; (2) addressed towards a personal network and (3) transmitted in a conversational style of communication (Schmidt, 2014, p. 4).

The concept of ‘ad hoc publics’ (Bruns & Burgess, 2011) – that is, publics emerging from, at times, very fluid communities – is especially relevant in the context under discussion. Such ‘issue publics’ are often formed by individuals using certain hashtags, for instance on Twitter. Other social media platforms, such as Facebook, with its pages and communities, can also become spaces for these publics. In many crisis situations, we can observe the formation of these types of publics across different platforms; this highlights their relevance in designing a model of networked crisis communication: ‘Networked forms of communication provide the form of connection among diverse social networks’ (Friedland, Hove, & Rojas, 2006, p. 7).

In acknowledging this shift in communication processes, many traditional actors in crisis communication find they need to reconceptualise the role of the public. Traditionally, the public has been seen as a rather passive audience. Crisis communicators also need to rethink their own role in

these networks, as well as their communication strategies, procedures and forms of communication.

We are stressing here the shift from a mass-media public sphere to a networked public sphere (Benkler, 2006) in which communities of interest gather on the web or on social media. Social media can be regarded as an enabler for those affected by disasters in that they now are able to publish relevant information.

*This new networked public sphere systematically increases communicative reflexivity at every level of communication, including the political system, civil society, and the lifeworld. Its network structure erodes the authority and agenda-setting power of the traditional media. (Friedland et al., 2006, p. 18)*

#### Communication Models and Social Media

The mode of communication during emergencies or disasters has also changed in the social media age, as is shown, for example, by Pechta, Brandenburg, and Seeger (2010) in their four-channel model of communication. They focus on information flows in emergencies and discuss the roles of different public actors, such as NGOs, the public, journalists or economic actors. In their model, the influence of new technologies and social media on behaviour and communication strategies in emergencies is central. Communication is understood as a dynamic process and not as the uni-directional process, from the authorities to the public, which has been the long-established basis for traditional emergency communication. Dynamic communication means that not only the authorities, but also members of the public are both senders and receivers. Hence information flows are not linear but multi-directional. One of the most important aspects of this model is the centrality of the public in emergency communication as a result of the increased communication flows on social media platforms from the public to the authorities.

The typology of communication scenarios elaborated by Reuter, Marx, and Pipek (2012) is another important approach for our study. This model distinguishes between four different communication types during emergency situations: (1) from organisations to the public, as in classical crisis communication; (2) from the public to the public (e.g. self-help

communities); (3) from the public to organisations, integrating citizen-generated content and (4) from organisations to organisations, in the form of inter-organisational crisis management. In this model, social media is seen as beneficial for all four types of communication levels; furthermore, they help accelerate the information flow between all communicators.

### From Crisis Public to Networked Crisis Publics?

The aforementioned models address the public only as a whole. However, in this chapter, we proceed not from one networked crisis public, but rather from many networked crisis publics which are not necessarily interlinked. In such ‘split networks’ (Simmons, 2013, p. 2) where ‘information travels quickly and repeatedly within a group’ but ‘doesn’t travel between groups’, it is not only important to consider the interplay with other actors/stakeholders within a networked public, but also between different networked publics. Social media dialogue can, therefore, be characterised as both more closed and more open – and as reorganised information flows where connecting in networks is central.

*Networked technologies reorganise how information flows and how people interact with information and each other. In essence, the architecture of networked publics differentiates them from more traditional notions of publics. (boyd, 2010, p. 41)*

### RESEARCH DESIGN

In contrast to Chapter 7, which includes an overview of an extensive range of different stakeholders and communication patterns, we focus in this chapter on our chosen model region, Alkoven,<sup>1</sup> in the district of Eferding, Upper Austria, in order to understand in more detail the specific communication process by the local voluntary fire brigade in the 2013 transnational floods. We have selected this case because it is an example of one of the

few organisations that had already included social media in its crisis communication.

We have analysed relevant documents and official websites pertaining to this case, as well as conducting an interview with the person responsible for the media. Furthermore, we conducted a computer-assisted, qualitative content analysis of the Facebook page (data gathered via Facepager application<sup>2</sup> in May 2016) and website of the voluntary fire brigade (Kaefer, Roper, & Sinha, 2015; Schreier, 2012).

Time is vital when communicating during flooding crises because floods have a long lead time compared to other disasters. To determine ‘what happened when’, we reconstructed different crisis phases in the chosen region, with a focus on the pre-crisis phase and the crisis phase. We centred the reconstruction on the voluntary fire brigade and added other actors involved at different hierarchical levels in order to determine and analyse ‘who addresses whom’ and how the different media were interlinked.

We have integrated these findings with the general outcomes from the study of social media use during the 2013 flood, retrieved from 20 semi-structured, in-depth interviews and social media and online communication data, as already presented in Chapter 7, so that we can make recommendations for rescue organisations on the use of social media during environmental disasters.

## FINDINGS

### What Happened When?

From a hydrographical perspective the ‘extreme flood water situation’ in 2013 was caused by heavy rainfalls at the end of May and beginning of June (Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft, 2014). The water levels paralleled different crisis phases.

A reconstruction of the main phases, taking into account national and regional communication activities, showed that the *pre-crisis phase* had already started with internal information on the rain and weather warnings on 28 May. The Upper Austrian crisis management unit was officially convened at federal state level on 2 June 2013 at 07:17 because several

districts had been affected by the flood, and the incident was declared as disaster.<sup>3</sup> Alkoven fire brigade put together a crisis management team in the fire station on June 2 at 07:30. These developments marked the transition to the *crisis phase*, and for one week emergency workers and the authorities operated in the Alkoven area.

As documented on the website and Facebook page of the Alkoven voluntary fire brigade, the area around Alkoven was hit by floods on 3 June. On 4 June the floods also hit areas that had not been affected by the last severe floods in 2002. The following day, as the water level decreased, the cleaning-up operations began, lasting until the end of the fire brigade's operations, after six days and 10 hours, on 8 June, the beginning of *the post-crisis phase*.

### Who Addresses Whom? A General Perspective

#### *Pre-crisis Phase*

Internal advance information about the rain and its effects (mudflows and floods) from remote experts, both to their clients and to other remote experts, could already be identified on 28 May 2013; however, this information was not yet publicly available. A media service on the official website of the public authority responsible, which gathers together press releases, had not yet, by the following day, included any information or warnings about the heavy rainfall or the imminent floods. There were no warnings or clarifications about the heavy rainfall in public communications on these first two days (Amt der Oö. Landesregierung, 2013b; Austrian Central Institute for Meteorology and Geodynamics, 2013).

Warnings about the imminence of mudflows and floods (from remote experts to the public) were disseminated by the legacy media on 30 May. As regulated by law, weather warnings had to be published in the media; consequently, news articles about the heavy rain were published. From that moment, the political leadership was alerted and observed the situation (Amt der Oö. Landesregierung, 2013b; Austrian Central Institute for Meteorology and Geodynamics, 2013).

On 31 May, media outlets at regional and national levels gave information about the weather situation and reported on the 'tense situation', 'preparation with flood defences', 'fear of rising water levels' and that



the fire brigades had been mobilised (OÖ Nachrichten, 2013; ORF, 2013a). For Upper Austria, announcements regarding preparations were made, but there were no flood warnings (APA, 2013a). Media outlets and the press agency announced a ‘flood alarm’ in extensive areas of other regions in Austria as well as a ‘major alarm for the fire brigade along the Danube’ in Lower Austria on 1 June (APA, 2013b; ORF, 2013b).

### *Crisis Phase*

With the beginning of the crisis phase on 2 June 2013, official communication took over responsibility (Ooe. KatSchG., n.d.). Internal information for situation awareness about water levels and flood alarm stages was passed on regularly to institutional actors by remote experts.

Institutional actors released information about the current situation to journalists via the media service on the official website (region of Upper Austria). In addition, they asked media organisations to inform the populace, making them aware of preventative measures, and to disseminate sources where people were to get official information, such as crisis portals and websites (Amt der Oö. Landesregierung, 2013c). Media outlets also directed their readers to the most recent information, for instance, via their live tickers, and recommended particular (official and unofficial) information sources. The relevant authorities continuously summarised the latest information on their websites.

## Who Addresses Whom? The Voluntary Fire Brigade’s Online and Social Media Communication

### *Pre-crisis Phase*

Although no concrete flood warning had been issued, the Alkoven voluntary fire brigade had already begun its activities on 2 June 2013. They started preparing for a disaster at 06:00 and provided the first unofficial information from institutional actors to affected publics (warnings were given through loudspeakers on the fire engine), even though the media spokesperson interviewed was not expecting floodwaters at that time.

*Crisis Phase*

A crisis status was declared on June 2 2013, and the representative of the municipality, the institutional actor responsible at a communal level, began steadily to inform the public. On their website, the fire brigade published information about the imminence of floods on 2 June, at 08:00. From this moment on, they released information about water levels and expected floods in municipal areas. They continuously updated and informed, aggregating information from remote experts, about disaster prevention operations and the current situation.

Shortly after the initial communication on their website, they published the first flood-related information on their Facebook page, which had already been established and activated before 2013. Hence the first flood-related post<sup>4</sup> was published in the crisis phase; this consisted of flood advance information and pointed out the link to the fire brigade's website on 2 June, 08:23.

During the flood the fire brigade made 69 Facebook postings in seven days. The fire brigade mainly posted status updates and photos, but also links to their own websites and YouTube videos (for instance, a short information video on the floodwater on 3 June). The Facebook data also showed that people were very engaged through likes, comments and shares. In the post-crisis phase there were still Facebook postings by the voluntary brigades on a regular basis. They were largely about the floods, but also about other fire brigade operations.

An interview with the media spokesperson revealed that the 2013 floods were seen as an 'internet crisis' as well as an environmental disaster by the voluntary fire brigade. They therefore made extensive use of social media, especially Facebook, as a means of communication, publishing posts that directed the audience to their homepage. In this way, the website was promoted as the main source of information for those affected. In addition, they located the information the public was seeking via Facebook dialogue and relayed answers to interested stakeholders.

*Comparison and Summary*

Our analyses revealed that there was no public communication by institutional actors in the pre-crisis phase. Dissemination to the public by

institutional actors began via media outlets in the crisis phase. The type of communication was mainly one-to-many, for instance, via press officers and press releases, but also through official websites. In general, media outlets were asked to disseminate information and those responsible for official communication played an important role in every communication activity. To reach many (affected) people, references to websites and to organisations where information had been gathered were common.

With regard to Alkoven, the analysis further demonstrated that there was no official communication with the (affected) public before the crisis team had been assembled; however, once the crisis phase had officially begun, they were able to quickly initiate communication on their website and Facebook page because they were prepared. Social media was already integrated and systematically used in their public communications. The voluntary fire brigade aggregated, shared and interlinked the latest information on the flood (from remote experts and the public authorities, but also their own information on, for example, the status of operations) via their website, which functioned as an information hub; they also used their Facebook page for networked dissemination and distribution. The fire brigade can be seen as an active social media user and representative of those institutional actors utilising social media to connect with those affected, and with networked publics in general, through retrievable and shareable content.

On a general level, our findings revealed that the public, to an extent, constructed its own network immediately, since official crisis communicators were not able to establish a Facebook network quickly enough (see also Goldgruber, Sackl-Sharif, Gutounig, & Ausserhofer, 2017) compared to Alkoven, where Facebook was a place to get information or participate. If we compare the general findings (see Chapter 7) and the communication processes in the case of Alkoven, we see that official communication strategies failed to include social media, whereas the use of social media by a rescue organisation (especially when connected with an official website) facilitated its communication on the environmental disaster. This was because the rescue organisation in particular used fast (networked) communication and disseminated and circulated information via Facebook.

### Developments after 2013

The attitudes and possibilities of different institutional actors have been changing since 2013. However, implementing social media is still a challenge and an on-going process for organisations and key communicators. Results from three master theses<sup>5</sup> have recently confirmed this: key communicators expressed the view that social media are indispensable and open up new communication possibilities – not only in relation to environmental disasters. However, a paradigm shift is still needed in crisis communication in order to fully integrate these processes into the official communication system (Meier, 2016). With respect to stakeholder communication, concepts need to further development, for instance, as to how social media communication between the fire brigade and firefighters (including their personal environment) should work to ensure that they are both well prepared for a crisis and more effective in dealing with it (Rieger, 2017). Heinrich (2017) concludes that the need to communicate efficiently is never more important than in crisis situations, but that numerous domain-specific factors and limitations of the institutional actors involved influence the process of communication in the public services. Improvement in internal workflows is particularly necessary to be effective.

### RECOMMENDATIONS AND MODELS

A long-lead disaster such as a flood on the scale of the one in 2013 is accompanied by a lengthy period of time in the prephase. Social media preparation is, therefore, crucial, because online discussion or speculation happen quickly, especially if news has already been published about adjacent areas affected by the flood (in this case in Germany) and forecasts of water levels have been issued (in this case for the Eferdinger Becken valley). In this area, where Alkoven is located, the water levels were hard to estimate, but designated as being higher than in 2002 (APA, 2013c). Moreover, context-related aspects (the area was affected by a flood in 2002) influence communication.

We are, therefore, presenting three areas of recommendations for rescue organisations and introducing models for web and social media crisis communication.

### Basic Recommendations for Rescue Organisations

Acknowledging the reality of media usage today, a shift in communication practice is needed. Responsible actors should pay more attention to strategic communication that takes into account the networked public sphere. In this sense, social media offer an additional possibility for institutional actors, for instance, to directly communicate precautions, coordinate people or facilitate the monitoring of the situation. We conclude that in the digital age a solid communication plan should include both social media and proactive communication. Therefore, our first points cover these areas and form a basis for our further recommendations.

#### *Plan Ahead and Communicate Proactively*

Institutional actors such as rescue organisations or authorities barely included social media in their communication processes before and during the 2013 Central European floods in Austria. In the digital age, however, the public increasingly uses social media as an entry point for information or news (Newman et al., 2017); require information and news in real-time (Coombs, 2014). Therefore, we recommend planning ahead and developing a national – or at least federal state – framework for social media use, prepared for emergencies. This recommendation corresponds to ideas of the ‘situational crisis communication theory’ which suggests that ‘crisis communication must be strategic, [to be effective]’ (Coombs, 2014, p. 316). Therefore, rescue organisations and the authorities should always be priming themselves in non-crisis or pre-crisis phases.

Consequently, a proactive communication strategy is essential. If, in the pre-crisis phase, the public cannot find any information on social media about an imminent disaster, a ‘paracrisis’ could occur as the result of an information vacuum (Coombs & Holladay, 2012); this means a threat of crisis developing into an actual crisis because of an organisation’s communication behaviour. As our results showed, the spread of misinformation or wrong information via social media could also be accelerated. In contrast, a proactive strategy of publishing and sharing the latest updates on a familiar website and/or established Facebook page will prevent such developments. A proactive communication strategy (in the pre-crisis phase) can influence the circulation of information and help prevent a communication crisis. We suggest that crisis communicators use social

media for information purposes and connect actively with conversations taking place within ‘networked publics’ (boyd, 2010).

### Content Strategy Inspired Recommendations

In crisis communication, disseminating the most important facts efficiently and effectively can be seen as one of the most important requirements for institutional actors. In the digital age, there are also new actors and new needs; many people get their information from the web and on social media platforms and also communicate actively. One problem organisations face today, not just in crises, is the greatly increased number of possibilities (platforms, channels, etc.) for information to be easily and swiftly published and communicated. Doubts concerning the practicability and operability of social media during operations by a rescue organisation remain, since it is not clear who the target group is for the information, given especially that not everybody has access. In a crisis situation, where institutional actors, such as the authorities, and rescue organisations work together, it is a further challenge to align communication activities. This raises the questions as to what the appropriate channels are and what content is needed on the web and social media.

Therefore, our next recommendations illustrate a way to manage online communication and to develop and implement appropriate crisis communication, ‘treating content as a critical asset worthy of strategic planning and meaningful investment’ (Halvorson, 2008, Section 2).

#### *Develop and Implement a Content Strategy*

We suggest that a process inspired by the discipline of content strategy, (for an overview see Batova & Andersen, 2016; Clark, 2016) will support crisis communicators in establishing and further developing social media communication: ‘Content strategy guides your plans for the creation, delivery, and governance of content’ (Halvorson & Rach, 2012, p. 28).

A successful content strategy includes not only the achievement of the organisation’s goals, but also meets the needs of users, including, for instance, accessing and acquiring relevant information directly on social media.

*Content strategy: Helps companies understand and produce the kind of content their target audiences really need. [...] Aligns communication across channels so that web content, print collateral, social media conversations, and internal knowledge management are working toward the same goals (in channel-appropriate ways). (Kissane, 2011, p. 1)*

The *Content Strategy Quad* by Brain Traffic<sup>6</sup> (see also Rach, 2011) is a content strategy framework that summarises a way of creating useful content with a model that illustrates the components needed to implement and support the strategy. It is divided into the core content strategy at the centre, two quadrants focusing on content components (structure and substance), and two quadrants focusing on people components (workflow and governance; Casey, 2015).

*Substance defines what content the organisation should produce, how it should sound, and why it's meaningful or relevant to users. Structure refers to how content is organised and displayed so users can find and use the content they need. Workflow is how content flows through the organisation – from ideation to publication to ongoing maintenance. Governance details how the organisation makes decisions about content to ensure that it's on-strategy. (Casey, 2015, p. xxv)*

First, it is essential to define the core strategy for comprehensive communication that guides the social media communication strategy. The core strategy determines what content is required and how the voice and tone of the content should be. Furthermore, it is necessary to define how the content should be structured (for instance, how detailed it should be) and for which particular social media platform it should be modelled.

Besides the specific content, the roles, tasks and tools for web and social media communication processes have to be defined in detail in order to outline how those responsible can manage and maintain content on a daily basis, as well as in a crisis situation. Finally, it is essential to develop content guidelines and standards for the organisation and for evaluating the content.

The basis for a social content strategy for crisis communication is the alignment of these different components. It is, on the one hand, necessary

to reconsider the content to be created for social media, but also to reconsider the organisational workflows that are often antagonistic to ideas about the network structure of social networks.

*Identify Your Stakeholders and Users, and their Needs*

Institutional actors, such as rescue organisations or the authorities, mainly pursued a top-down and one-to-many communication strategy during the 2013 floods in Austria. However, they were confronted with a many-to-many form of communication on the web and in social media. Our research shows that a more nuanced understanding of the public and their demands is needed in the digital age. Hence it is important to get to know your users. This essentially means that you need to monitor your users' concerns to identify their needs and provide them with useful content.

Therefore, we suggest that institutional actors rethink their view of the audience as a passive public (i.e. receivers) towards networked publics (i.e. interconnected receivers and senders). As already discussed in Chapter 7, we are guided by the stakeholder management approach which defines a stakeholder as 'any group or individual who can affect or is affected by the achievement of the organization's objectives' (Freeman, 1984, p. 46). Furthermore, it is important to identify, analyse and prioritise the expectations of the different stakeholders and integrate their expectations and needs in communication strategies. In this way, institutional actors will gain a more nuanced conception of their audience and will be able to find a new, more adequate crisis communication strategy.

Web and social media users affected by or interested in the crisis situation have become stakeholders. They actively search for relevant content on these channels. Consequently, it is important for rescue organisations that the web and social media content they produce, and the way they manage it, meets the information and communication needs of the users (especially concerning information behaviours) and helps support operations in dealing with the disaster when people find the information they were looking for. In general, a more user-centred communication (behaviour) can help prevent a communication crisis.

Institutional actors should also reflect on whether and how it is possible to integrate citizen-generated content in the communication processes – what Reuter et al. (2012) have defined as communication from the public/s to organisations. The identification and monitoring of



this content has to be defined. In addition, we recommend direct response and reaction to this content on social media channels, so that communication supports the circulation of verified information among different stakeholders through networked communication on various social media channels. The role of the person(s) responsible for this task has to be defined in such a way as to fulfil this requirement.

#### *Build Your Audience First*

Institutional actors, such as public authorities and rescue organisations, were practically absent from the flood-related public social media data; either they had not yet set up social media accounts or they were hardly visible through not having a large ‘fan community’ online. Consequently, there was a lack of public information on social media and an absence of predefined social media space for comment and dialogue (which, in addition, could help identify and react to user-generated content and demands).

Before the next environmental disaster, rescue organisations<sup>7</sup> and public authorities should establish a communication process which includes social media in order to guarantee that the public knows about official social media channels and can get information from them. Only by becoming a part of the communication network can these organisations become sources that maintain their presence within the mass of crisis-related content and accounts.

While content strategy is a strategic approach to ‘create, deliver, maintain usable content’ (Halvorson, 2008) for more efficient processes and usable content, content marketing can, more specifically, ‘attract, acquire, engage a target audience’ for social media channels. To consolidate the web and social media presence and promote these accounts, institutional actors could adopt the content maturity model as developed by Robert Rose (see also Content Marketing Institute, n.d.; Goldgruber et al., 2017; Pulizzi, 2014); this is a model for content development that proposes creating specific content in three consecutive steps: (1) content aware; (2) thought leader and (3) storyteller.

The (usually sufficient) basis for an organisation to build its audience is by becoming content aware. In this first stage, an organisation has to ‘be found’, build ‘trust’ and ‘generate greatness’ on the web and in social media by generating trustworthy and helpful content in order to increase

awareness about its services or information. In the next stage, an organisation strives to become a thought leader on social media by offering content that is closely related to the areas of interest of its target audience. In this way, the organisation is able to ‘meet demand’, ‘create further trust’ and act as an ‘efficient funnel’. In the last step, the aim of an organisation is to participate and interact with its audience on social media and have an impact based on emotional relationships (Pulizzi, 2014).

In crises it could be helpful for institutional actors to be widely known (level of awareness) on social media and to be seen as trustworthy when providing a specific service or information. Nevertheless, the organisations also have to continuously demonstrate their reliability through their web and social media presence and contents. Especially rescue organisations should increase their online community through stories and interaction in non-crisis times.

#### Web and Social Media Literacy Oriented Recommendations

Finally, it is not only important to develop crisis communication strategies but also to develop and improve practical skills in dealing with social media platforms and communication processes. Thus, organisations should also provide training for all those involved in crisis communication. We recommend training with an emphasis on developing practical skills.

#### *Train Your Web and Social Media Literacy*

As part of crisis preparation, responsible actors should be prepared to manage social media communication. This should not only include publishing and monitoring tools used by the organisation (see also Backfried et al., 2016), but also establishing and practising structures for communicating online and on social media on a daily basis. In this regard, we are guided by the Mozilla model of Web Literacy that includes three dimensions that are also relevant for social media:

- (1) *Read*: Online reading requires a ‘basic understanding of web [and social media] mechanics’ and is a ‘critical skill for engaging content

online'. In the context of a crisis, this skill is also important for monitoring and evaluating content.

- (2) *Write*: 'Writing on the web enables one to build and create content to make meaning'. As already illustrated, it is important to know how and what content to produce on different platforms during a crisis.
- (3) *Participate*: Participating on the web enables one to connect with 'the communities that share, build, and sustain meaningful content online' and thereby demands 'knowledge of how to create, publish and link content' (Mozilla Learning, n.d.).

Learning to read, write and participate on the web, especially on social media, is an essential precondition for reaching out to and connecting with different actors and online communities. It is also helpful in monitoring and dealing with social media posts. This could be part of a media literacy training which takes into account the specific needs and requirements of crisis management.

## CONCLUDING REMARKS

In this chapter, we have summarised and compared communication processes relating to the 2013 Central European floods in Austria. On the one hand, we have discussed our chosen model region of Alkoven to illustrate the perspective of an active social media user. On the other hand, we have outlined our findings about the floods on a general level (see Chapter 7). Based on these findings, we have described models and ideas relevant for the integration of social media, developed recommendations for rescue organisations and asked how to further develop and implement a more holistic crisis communication strategy with: (1) basic recommendations; (2) recommendations inspired by content strategy and (3) recommendations oriented by web and social media literacy.

The continuous development of (new) platforms with social features influences communication mechanisms; new behaviours are also emerging that will impact upon the future of news and crisis communication, as they also heavily influence the way people connect and communicate.

When formulating a strategy for crisis communication, organisations, different stakeholders and technology play an important, interactive role.

However, as all of these components may change rapidly in the near future, our recommendations are more general and focus especially on timing-related (speed and crisis phases) and content-related aspects. These could act as catalysts for further improvements in communication strategies for the digital age.

## NOTES

1. Alkoven was chosen because it is one of the municipalities near the Danube severely affected by the flood in 2013 (Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft, 2014).
2. Facepager is an application for generic data retrieval through APIs (see Keyling & Jünger, 2016).
3. The Upper Austrian crisis management held a first press conference to inform the public in general terms on 3 June (Amt der Oö. Landesregierung, 2013a).
4. In the identified pre-crisis phase, we found only one posting on their Facebook page (which was not about the floods).
5. Conducted as part of the RESCUE project.
6. See <http://braintraffic.com/> (08.01.2018).
7. Remark: The fire service in particular is trusted in Austria.

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