

Emergency Management in Social Media Generation

Guidelines to increase

the benefit of social media in emergencies

For emergency services & public authorities

short version

This document includes the short version of the EmerGent guidelines to increase the benefit of social media in emergencies (for emergency services and public authorities). For the full version visit:

www.fp7-emergent.eu/guidelines



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# Foreword

The following guidelines are not and should not be considered as rigid rules. They rather describe the recommendations of the EmerGent consortium on how to communicate in social media and help to decrease the uncertainty with this new, changing and maybe unfamiliar medium.

## Purpose of the guidelines

The guidelines aim to:

* provide a concise set of recommendations that will guide emergency services to develop their own social media strategy, plan and code of conduct
* explain all the considerations before and while an emergency service uses social media
* act as template of the social media strategy under development or revision

## Who are the guidelines for?

The EmerGent guidelines are provided for emergency services, their staff and authorities involved in the emergency management lifecycle. The guidelines are intended for all organisations regardless of their level of experience in using social media. Organisations new in the use of social media may use the guidelines as a starting point to formulate their own social media strategy and dig deeper to customise the strategy to their own operational structures and practices.

## Structure of the guidelines

The guidelines are divided in four distinct sections:

1. **Prepare** to start using social media (*section 1*)
2. Use of social media **before** an emergency (*section 2*)
3. Use of social media **during** an emergency (*section 3*)
4. Use of social media **after** an emergency (*section 4*)



Figure 1: Outline of the EmerGent guidelines

# Prepare to start using social media

## Consider the legal implications

Before starting to use social media, you should consider the legal basis to avoid legal concerns and insecurities. Inform your staff for what your organization is allowed and expected to do with data from social media. Consider the legal frameworks and the operational policies to answer the questions:

* Does an emergency service need to react if someone writes that is in need of help?
* Are emergency services liable if a request for help on social media is missed?
* Are emergency services liable if some harm is unknowingly done, e.g. publishing the false message by mistake?

Legal implications also extend to taking the appropriate measures to adhere to the legislation for Data Protection and Privacy, when gathering data from social media. EmerGent developed concise guidelines centred around how a project that mines social media can meet the obligations under the European Union’s General Data Protection Regulation (GDPR)[[1]](#footnote-1) that was adopted in April 2016.

For more information, see section 4.1.1 of the long version of the EmerGent guidelines.

## Consider the needs in human and financial resources

The use of social media entails operational costs and needs in human resources.

### Emergency Services need social media expert users

The use of social media should not interfere with the operations of emergency services and should not add additional work to staff. In EmerGent, we defined the role of the “social media manager”, as a user of social media accounts and ICT tools. This role is responsible for gathering, filtering and publishing information in social media. The social media manager collaborates with staff to extract information for publication and feeds filtered and assessed information aiming to help response operations. Being familiar with social media features and “language”, the social media manager can also provide crisis communication on social media.

Some emergency services report that they identified staff with the necessary skills and interest for this role from within the organisation. Collaboration with volunteers and Virtual Operations Support Teams (VOST) can help reduce the needs in human resources. Supervision will be needed but it can be reduced over time.

### Emergency Services need the ICT tools to gather information from social media.

ICT tools help to publish messages in several channels from one tool and in times of increased communication during crises, ICT tools are needed to help staff analyse and verify the available information.

The following cost categories should be considered before starting to use social media:

* ICT tools to gather and monitor information from social media
* Staff using/monitoring social
* Staff training
* Using the advertising platforms of social media to increase public reach

Although not possible to measure, the use of social media can reduce overhead costs during an emergency, for example by reducing the number of incoming calls that are only seeking information.

For more information, see section 4.1.2 of the long version of the EmerGent guidelines.

## Prepare a social media strategy

A social media strategy should clearly describe the objectives of using social media, who, how and when to use social media during all emergency phases. Staff guidelines can then be derived from the objectives and may include:

* what objectives does the organisation pursue with the use of social media,
* what content should be published and what content is not permitted to publish,
* what social media channels should be used,
* who are the target groups,
* who administers the social media channels and
* who is the contact person if there are any questions from staff members?

The full version of the EmerGent guidelines describes in more detail what to consider when preparing your social media strategy and guidelines:

* Define the roles of staff and their responsibilities
* Define the content strategy: when, what and where; writing for social media.
* Handle negative or irrelevant feedback and react to a mistake

For more information, see section 4.1.3 of the long version of the EmerGent guidelines.

## Clearly communicate the social media strategy and provide staff training

Training should ensure that the social media strategy is clearly communicated to all staff members. While the content depends on the previous staff experience, the level of engagement envisaged and the social media strategy, the following topics can be covered:

* the main principles and objectives of the strategy
* what is allowed and expected when using social media
* the rights and duties of staff using the social media accounts of the organisation
* the risks and danger that may arise while using social media
* the difference between using social media as an organisation and for personal use
* guidance on how to verify information
* guidance on respecting intellectual property rights
* use of ICT tools

For more information, see section 4.1.4 of the long version of the EmerGent guidelines.

## Explore what ICT tools are available for social media monitoring and analysis

Most activity in social media is expected during emergencies, a time of increased communication in all channels and a period that staff has the least amount of time to deal with it. Extracting data from social media requires extra effort to search and find helpful information. The use of ICT tools to support the emergency services staff becomes important and almost mandatory during this time intensive period. There are different tools that can support emergency services. Some tools specialise in the emergency services domain, and other, intended for organisations and companies to monitor social media for their brands and products, also provide useful features to:

* Gather & filter information cross-media (e.g., Blogs, Facebook, Forums, News Pages, RSS, Twitter, YouTube etc.) with customisable search terms
* Detect anomalous events, topics and trends
* Sentiment analysis to grasp the mood of the population
* Estimate the information quality and indicate how much real it appears or how much it can be trusted
* Directly publish information to many platforms from one tool without the need to sign in and post to each one (one to many communication in terms of A2C)

The selection of the most appropriate tool for your organisation depends on the intended use of social media, the functionality sought in the tool and the available financial resources.

For more information, see section 4.1.5 of the long version of the EmerGent guidelines.

## Use of apps for direct communication (A2C & C2A)

Beside the 112 apps providing emergency call functionality, apps related to event alerting have also been developed. These apps provide functionalities that can support the response operations and event management and are based on the idea of making citizens part of the emergency management process, representing the main source of information about events but still maintaining a strict link to the social network realm. This kind of app can be useful for emergency services or public authorities to support the communication activities in two directions: from Citizens to Authorities (C2A) and from Authorities to Citizens (A2C).

### C2A communication

In the C2A communication flow, citizens report any dangerous or relevant event that is happening around them to the competent authority. The report includes location, description, category and sub-category of the event and multi-media files. The information reported ease the work of the Control Room operators: they will have better situational awareness (even better in case of reports from several citizens about the same event), which will help them to better identify the actions to be taken. The application also helps operators assess the quality and reliability of the alert, based on multiple factors (such as distance from the event, user’s reputation, relevance of the photos) and better identify the alerts needing a quick intervention. Having a compulsory registration process and providing personal data before using the app, makes people accountable for their reports and lowers the number of fake calls and hoaxes.

### A2C communication

In the C2A communication flow, emergency services can send alerts to people within a certain area or to a selected group of people, limiting the warning only to the users that are affected by the event. The emergency service can provide multiple information to the citizens, including multi-media files and instructions, which will help the population in taking the right actions, thus minimising the impact of the event. Since no communication channel can reach 100% of the population, an app can improve the alert reach as the alert will arrive directly on the smartphone.

For more information, see section 4.1.6 of the long version of the EmerGent guidelines.

## Plan the next steps to start using social media

Social media use can start from a passive non-engaging phase of only listening and gradually continue to more advanced uses as you gain more experience, which include publishing, monitoring information and responding to citizens’ queries. The first step can be passive, by adopting an observer role and monitor social media messages. The focus of this phase is to understand your audience, monitor public opinion, gain experience in monitoring events to increase situational awareness and assess how your organisation is viewed by the public. The next phase involves becoming more active by adopting a broadcaster role and providing information to the public. Social media users being unaware that you aren’t engaging in conversations, will start conversations online by responding to your posts or by asking questions and may be disappointed if you do not respond. The next step is to engage in conversations with the public and move from the passive to the active phase, utilising two-way communication. As the communication with the public increases, real-time monitoring for operational use to gain awareness will also increase. This phase will lead to the most advanced use of being fully operational in social media and adopting it as an additional communication channel.

For more information, see section 4.1.7 of the long version of the EmerGent guidelines.

# Before an emergency

## Provide information about your organisation, its operations and emergency prevention and preparation

### Information about your organisation

Publishing information about your organisation will help citizens understand your operations and what to expect from you:

* Explain when to contact emergency services and the information needed when an emergency call is received
* Remind people that 112 is the European emergency number available in all EU member states, useful to remember while travelling
* Remind people how they can alert emergency services and the communication channels for people with disabilities
* Explain the obstacles that affect the work of emergency services, e.g. false calls and how they can be avoided
* If you offer an app for citizens, promote the download and use of the app

### Information about prevention and preparation

Emergency services regularly give advice on how to act in emergencies, especially in regions vulnerable to natural disasters. Social Media offers the possibility to directly present the recommendations to the citizens in the tools they use in everyday life.

Prevention and preparation messages can include: information, tips and advice about prevention of accidents and reduction of their effects, e.g. emergency plans, protective actions, recommendations and reminders to avoid incidents, training resources etc. Providing information about “common risks for house fires, how to prevent a fire, how to prevent a burglary during your vacation, why to install a smoke detector, how to perform CPR, etc.” can have an impact on citizens and help avoid such risks in the future. Citizens can ask questions and receive answers, effectively helping them to assimilate the tips.

Emergency services and other authorities regularly publish the latest data indicating possible threats, such as water levels, weather data, or information on big events. Social Media could be used to establish information streams to gather and publish this kind of information. Interested people can subscribe to this service to stay easily informed without spending efforts to search for it.

To keep the audience interested, prevention tips should be mixed with other lighter or interesting content, e.g. using funny and entertaining content related to the operations raises the interest of citizens. Use of humorous content not related to your operations should be assessed before published.

For more information, see section 4.2.1 of the long version of the EmerGent guidelines.

## Raise awareness on the use of social media

You should promote you are using social media to make citizens aware. Building a community in social media cannot happen in short time. Time is needed to gradually build it and increase the reach of your communication. It is essential to develop your fans/followers early and before an emergency, so the community is established and confidence has been established:

* Tell people you are available to respond to their questions and explain what to expect from you in social media, when you are available and how your availability changes during times of crisis?
* Encourage citizens to support emergency operations by using social media and provide them with information on how they should do it. Give examples how social media could be used and publish guidelines for citizens to describe the correct use of social media for emergency management. The EmerGent citizens’ guidelines can be used as a starting point to develop your guidelines.
* Emphasise that social media does not replace emergency calls
* Promote the use of hash tags to make information easily identifiable. Developing your own hash tags helps people identify content.

For more information, see section 4.2.2 of the long version of the EmerGent guidelines.

## Use of ICT tools for social media monitoring and analysis

### Share information with the help of ICT tools

If your organisation uses multiple social media channels and you want to share information, you might want to use an ICT tool that allows to publish content cross-media, including real-time and scheduled messages. Easy cross-media publication saves time and allows to prepare relevant information for predicted emergencies, e.g. weather related emergencies.

### Use ICT tools to monitor your social media accounts

ICT tools can provide combined streams of all messages received in your accounts. This gives an overview of social media activity and is the foundation to establish two-way communication with the public, to help you monitor the mood of the citizens, detect trends, topics, and anomalous events like emergencies.

### Use ICT tools to monitor social media beyond your channels

Although monitoring your social media accounts is the first step to gain basic situational awareness, ICT tools can also contribute by providing sophisticated search and filter mechanisms to gather specific data. Your organisation can monitor social media channels of other emergency services, specific communities and users, or pre-emptively search for specific terms or hashtags (e.g. blizzard, floods, fire, etc.) to establish data streams of common emergencies.

For more information, see section 4.2.3 of the long version of the EmerGent guidelines.

## Team up with other groups and organisations

The social media world with its crowd sourcing approach has options to offer for Social Media for Emergency Management (SMEM), such as the so called digital volunteers and the “Virtual Operations Support Teams (VOST)”. VOSTs are teams of trusted experts who provide support via the internet and social media to those who may struggle to handle the traffic and data volume during a crisis, but also in day to day activities. VOSTs are formed by experts in public safety, communications and IT. Some of their members have experience as volunteers and others have professional experience. The appearance of VOSTs is based on geographic regions and usually each team is directly related to a geographic region. They are supported by an expanding network of VOST influencers and are backed by international networks in Europe, the Americas and Oceania.

The aim of VOSTs is to create the basis for effective collaboration between emergency personnel and those affected by an emergency. They operate under an agreement with the emergency services or the public authorities and two modes of operation are possible. A VOST can operate “in the shadow” and for example provide information and detect hoaxes without this being directly observed by the public. The second model of operation is based on an open collaboration link between the two parties and in case of a crisis a VOST may take over the official account of emergency services. Formal agreements are signed between the team and the authority that accurately describe roles and responsibilities and in what ways will the VOST help. Engaging with volunteer groups and developing close collaboration links, offers a support line to utilise during an emergency, aiming to support professional staff and reduce effort.

For more information, see section 4.2.4 of the long version of the EmerGent guidelines.

## Publish alerts for the risk of an upcoming emergency

Emergency services seek ways to inform the public about emerging threats in the quickest possible way and try to reach as much of the population as possible. Social Media cover a large part of the population but also offer functionalities to share information that can amplify a message and make it reach more people. While social media should not be the only channel to disseminate early warnings, it is great for publishing warnings, directly exchanging information with the public, and giving advice on how to act in certain situations.

When disseminating an early warning, the following should be considered:

* Publish risks in social media as you would do in other communication channels
* Social media can’t replace other traditional ways of alerting citizens and should not be the only available channel
* Give prevention tips and instructions for staying safe together with the warning
* Remember not to cause panic
* Note that alerting the population may not always be in the duties of an emergency service, but public warning may be the role of a public authority or another agency – make sure this is clear in the social media strategy
* Visually distinguish warnings from other content you regularly publish and mark that you are posting important information

For more information, see section 4.2.5 of the long version of the EmerGent guidelines.

# During an emergency

## Understand how social media is used by citizens during emergencies

Understanding how citizens use social media can help interpret the information gathered and accordingly align the social media strategy during an emergency. During emergencies, citizens are most likely to use social media to search for information provided both by emergency services and other citizens. Some users take an informant role, alerting citizens or emergency services to specific events or conditions relating to the emergency. Additionally, citizens frequently use social media to organise or volunteer for help. This is often ad hoc, responding to sometimes localised needs. Amplifiers and citizen journalists retweet or post messages from emergency services and fellow citizens, hence increasing the reach of social media messages. Digital helpers plug information gaps emergency services cannot provide (e.g. setting up a webcam and broadcasting images of water levels), organizing relief efforts, or raising funds to assist recovery operations.

A study[[2]](#footnote-2) on how people react in Twitter, analyses recent crises in Europe and concludes to the following 6 stages of reaction: the information phase; the phase of emotion; the transition phase; the organisational phase; the phase of interest; and the disorganisation phase. Understanding these roles and phases helps focus the communication during emergencies and help decide if and how to react to messages found in social media.

For more information, see section 4.3.1 of the long version of the EmerGent guidelines.

## Establish communication with the public

The public will be eager to receive, send and request information during an emergency. Leverage the established community to communicate with the public. Remember that emergency services need to be the source of reliable information during a crisis, especially on social media, since a lot of false or incomplete information may spread. Your pre-planned posting strategy should stop and focus should be shifted to the real incident:

* Provide information and confirm that you are aware and responding to an incident.
* Communicate regularly, react quickly to requests, be open and honest. Engage in a dialogue as far as possible.
* Publish regular updates, even if the situation has not significantly changed to keep your followers informed. People will continuously seek new information.
* Information requests will increase and you may receive repeating requests. Remember that some of your readers may have not seen all previous updates. Sometimes posts appear on people’s timeline when a user connects to the platform and this may be a lot later. To overcome this, some emergency services include the date and time of the publication on the post. Using the pinned post functionality helps giving a first overview to newcomers. Responding to all comments and requests may not be possible at this time due to the high volume and you may need to prioritise your responses. Explain this to your audience.
* Direct citizens to online resources that answer their questions, e.g. identify what is of most interest to citizens or what information they are mostly seeking and provide a FAQ web page, or a web site to report incidents and provide information. Some of these resources can be prepared before the emergency.
* If possible, photos should be used. Photos of helpers, volunteers and affected people can create identification and emotional involvement. This results in comments of “solidarity, sympathy and identification with the helpers, showing the potential of social media to influence a community’s resilience in a positive way.
* Make information easily understandable by using clear and simple language.
* Make information actionable, when you are asking for something.
* Use hashtags, but remember that new hashtags develop naturally and rapidly during crises.
* Republish information that originates from trusted sources or information that you have validated. Sharing valid messages from trusted social accounts will amplify the reach. Ask people to share received information with their contacts.
* Provide instructions to citizens what to do if the emergency starts to directly affect them, e.g. in case of a forest fire.
* Ask the public to respect victims and ensure privacy for emergency operations, e.g. for Police operations.
* Mobilise volunteers and ask people to help each other and show ways to help.
* Consider using programmes such as Twitter’s “[Ads for Good](https://about.twitter.com/company/twitter-for-good)[[3]](#footnote-3)” and provide an opportunity to use Twitter’s advertising platform to amplify your messages.

For more information, see section 4.3.2 of the long version of the EmerGent guidelines.

## Request information from the public

Social media can be used to request specific information from the public to assess the current situation and help gain better situational awareness. Describe what kind of information is needed, what would be helpful and in which form it should be provided. In the EmerGent citizens’ survey, citizens expressed they want a clearer purpose of the information to share and they also expressed the need of “guidelines and encouragement from authorities” on how to best share information.

When requesting information, always report back on the same topic, for example:

* An example message to post is “We have received information about x, y, z, can anyone confirm this? For example, ask people to report on the smoke level, if they are in a specific location, by sending a reply, picture, video and their exact position.
* Validate collected information, for example by sending professionals to measure smoke levels, or validating the photographic evidence received.
* Provide replies, for example we see and confirm smoke, but it is ok.
* Provide acknowledgements of good information

Crowdsourcing information can help you achieve a better understanding of what’s happening. Instead of posting a question publicly, you may consider asking trusted members of your online community or ask people in a specific area.

For more information, see section 4.3.3 of the long version of the EmerGent guidelines.

## Use of ICT tools for social media monitoring and analysis

Remember it is important to be the source of reliable information and publish regular status updates during an emergency. Use ICT tools that allow to publish content cross-media to save time and increase reach. Consider the specifics of social media, for instance, Twitter’s character limit or Facebook’s reach restriction to communities, groups or pages.

The EmerGent citizens’ survey revealed that citizens expect emergency services to monitor their social media accounts and to respond to posts within an hour. ICT tools can provide combined streams of messages from all your social media accounts, helping to maintain an overview and to handle the increased communication load. ICT tools allow to continuously search and filter specific terms or hashtags to gather relevant information and aim to help you identify the messages being sought amongst the numerous messages available. Broad search terms result in information overload and restrictive and specific search terms in information shortage. Having available the right combination of search terms is a difficult task that improves over time and with experience. The language that citizens use in comparison to the internal terminology becomes important. For example, the public will not use the term "domestic fire", but may use "house fire" amongst other terms.

Look for tools with algorithms and visualisations to transform the high volume of noisy data into a low volume of rich content. Visualisation of geolocations and relevant media files can quickly help filter and evaluate messages. Being able to easily assess the quality of information is important when time becomes critical. Criteria like the relevance, timeliness or completeness can help emergency services estimate the overall quality or trustworthiness of information.

For more information, see section 4.3.4 of the long version of the EmerGent guidelines.

## Respond to false information and rumours

### How does false information spread?

A rumour starts with someone posting false information. Several users re-posting the content make it gain a lot of attention and it may become a trending topic on social media due to its large number of shares. The increased popularity of the content results in other people believing it. As soon as people start to realise that it contains false or inaccurate information, the rumour starts to diminish until it is confirmed as false information. False information may involve posts and photographic material with many false stories including altered photos (“photo-shopped”) or from a different event.

### How to correct false information?

To reduce its spread, false information should be reported as soon as possible. While social media may include more false information than other media, it also functions as a corrective mechanism. The reaction to incorrect information in social media can be high, with people correcting information and warning their networks that this information is misleading. Give accurate information and ask the public to help you set it right, by sharing or retweeting your posts. If possible, find the authors of the false information and ask them to correct or remove the information from their profiles. Use dedicated hashtags to mark false information, examples already in use #mythbuster, #FALSCHMELDUNG, #STOPBulos. To proactively counter the spread of rumours, encourage citizens to look for trusted accounts providing official and verified information and repost only trusted information to avoid the spread of rumours.

For more information, see section 4.3.5 of the long version of the EmerGent guidelines.

## Collaborate with emergent group initiatives

During emergencies and disasters, the challenge is to cope with either the lack of information or an information overload. Digital volunteers and the crowd sourcing approach of social media offers options to overcome this issue. Building on the collaboration and agreements established with VOSTs before the emergency will support the response operations. VOSTs can:

* Monitor multiple channels, collect information, filter, assess it and forward it to the authorities
* Provide support in hoax, rumour and abusive behaviour detection, information verification, and correct misinformation
* Help amplify citizen reach by sharing information
* Provide advice and tips to both citizens and crisis managers
* Help by taking over the communication with the public during emergencies

For more information, see section 4.3.6 of the long version of the EmerGent guidelines.

# After an emergency

## Continue the communication with the citizens

Being present in social media after an emergency can continue to support the recovery operations. Information disseminated to the public can include:

### Recovery information and follow-up guidance

* Updates on completed recovery operations, e.g. infrastructure damage that has been recovered and opening of previously closed roads
* Request information about locations where help is still needed

### Report on how the emergency was handled to helps citizens appreciate the efforts of emergency services

* Share the workload during the response phase, prepare information with numbers that help understand the impact of the emergency and how it was handled
* Request feedback from those who communicated with emergency services during the emergency

After a crisis, some citizens will want to help. Coordinating this motivation can help find volunteering resources to assist the recovery and encourage citizens to help each other.

For more information, see section 4.4.1 of the long version of the EmerGent guidelines.

## Evaluate your social media use during the emergency

After the emergency, you can start the evaluation of the social media use, by examining its strengths and weaknesses and identifying the lessons learnt and how it can improve. The aim of the evaluation is to define a procedure to identify changes that can improve your social media strategy. The evaluation should include feedback from staff members, the broader group of services and authorities handling the emergency, and citizens. Quantitative and qualitative metrics should be collected.

A source of quantitative information is to use the analytics tools of the social media channels you use, or use external tools to collect and assess metrics and indicators, such as:

* Number of fans, visits, likes, posts, audience reach
* Number of followers, retweets, likes
* Change of followers before and after the event
* Which social media channels performed better? Which social media channels helped reach most audience? Are there correlations between citizens’ demographics and social media channels?
* Positive and negative feedback received
* Response times to messages

The evaluation should also look at the citizens’ feedback. Inviting their feedback can be done publicly or with selected people. You can use an online questionnaire to evaluate the presence in social media. Respond to citizens’ replies, even if they are not positive. The results of the evaluation and the lessons learnt should be widely communicated to all staff involved and should drive the next revision of the social media strategy.

For more information, see section 4.4.2 of the long version of the EmerGent guidelines.

1. http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32016R0679 [↑](#footnote-ref-1)
2. Brussels Attacks Crossover between research and reality, http://eena.org/publications/brussels-attacks-twitter-reactions [↑](#footnote-ref-2)
3. https://about.twitter.com/company/twitter-for-good [↑](#footnote-ref-3)