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Security and resilience — Emergency management — Guidelines for the use of social media in emergencies

Sécurité et résilience — Gestion des situations d'urgence — Lignes directrices relatives à l'utilisation des réseaux sociaux dans les situations d'urgence

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 292, *Security and resilience*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Having effective communication among organizations and with the public are important aspects of emergency management. The emergence of social media, in addition to other media such as television, radio, and newspapers, has provided more communication options and enhanced communication capability, but it has also made communication more challenging.

It is important that organizations recognize their potential benefits and threats inherent when using social media in their communication strategy, including crisis communication. Social media can improve situational awareness and communication capability and help citizens support each other during an emergency or crisis. Social media can also spread inaccurate information regarding an incident and the response to an incident. Organizations that have the capability to monitor and use social media can take advantage of the potential benefits and counteract the potential negative consequences that can arise from social media.

This document provides guidance on how social media can be integrated into communication in emergency management.

Security and resilience — Emergency management — Guidelines for the use of social media in emergencies

1 Scope

This document gives guidance on the use of social media in emergency management. It gives guidance on how organizations and the public can use, and interact through, social media before, during and after an incident as well as how social media can support the work of emergency services.

This document is applicable to governmental and non-governmental organizations involved in emergency management and crisis communication.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 22300, *Security and resilience — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 22300 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
social media
online technologies and practices that people use to share opinions, insights, experiences and perspectives with each other, transforming traditional one-to-many interactions into many-to-many interactions

3.2
inaccurate information
information that is false

Note 1 to entry: Inaccurate information may be spread purposefully or without purpose.

Note 2 to entry: The scientific term "misinformation" includes inaccurate information that is spread without purpose.

3.3
purposefully misleading information
inaccurate information (3.2) that was distributed purposely or intentionally omitted information or intentionally modified information

Note 1 to entry: The scientific term is "disinformation".

4 Understanding social media

4.1 General

With increasing digitalization, a growing number of social media platforms and channels are available, and the selection and popularity of these are continually changing. Social media is available worldwide but access to some platforms and channels can be restricted in some countries. Some platforms and channels focus on exchanging text messages, others focus on sharing photographs or videos, and some permit the sharing of text, photos and videos. Many can include links to any content stored on the internet.

There is a connection between social media and other media such as websites, newspapers, radio and television. People also share news articles and information on social media.

Annex A provides types of social media channels, platforms and related tools.

The organization should:

— consider the role of social media in the context of its overall communications strategy, including crisis communication, and how the social media strategy is implemented in the organization;

— understand that the extent to which information is shared depends on the application on which it was shared and the privacy settings of the user who shared the content;

— understand that social media is operated by private companies, and it is governed by their own terms of service or user agreement.

4.2 Utilizing social media

4.2.1 General

The exchange of information through social media will depend on the organization's communication strategy and whether the organization is operating before, during or after incidents or crises.

The organization should consider:

— how social media can improve the organization's capability to manage incidents and crises;

— how social media can reduce the organization's risks by considering risks that can potentially be affected by ineffective communication;

— how fit-for-purpose the organization's social media policies and procedures are to determine if changes are required.

4.2.2 Implementation

The organization should:

— identify and obtain the appropriate tools necessary to implement the use of social media;

— supplement internal resources by using external resources as required;

— ensure that the resources are capable of performing their assigned responsibilities.

A natural progression for the use of social media is to monitor social media communications, then disseminate information to support emergency management objectives. This is then followed by interaction with social media users (public or private stakeholders) to answer questions and build trust with the social media audience.

The organization should conduct a regular review of social media as part of its overall continual improvement process.

4.2.3 Monitoring

4.2.3.1 Purpose

The organization should monitor the use of social media in order to:

— identify the social media platforms used by its audience;

— improve awareness of the environment in which it is operating;

— identify how it is perceived by the public and various stakeholders who can be impacted by its operations and risks;

— identify current and emerging issues, including issues that require a response;

— identify influential users of social media and metadata tags that can relate to the organization;

— understand how citizens or stakeholders are using social media related to the organization;

— identify other emergency services or service providers with similar risks or emergency management messaging, or both.

NOTE   A metadata tag is a keyword used in social media that is assigned to a piece of information to facilitate search. A hashtag is an example for a metadata tag.

4.2.3.2 Span of monitoring

The organization should:

— monitor topics, groups or individuals relevant to its objectives;

— determine the appropriate geographic span of monitoring, ranging from fairly narrow and restricted to one community to worldwide monitoring;

— base the extent of the monitoring on the size, nature and impact of an incident.

4.2.3.3 The quality of information

The organization should assess the quality of information obtained from monitoring social media to ensure it is of high quality. It should validate the information for accuracy and quality before using the information for prevention and preparedness, especially for improved situation awareness during response and recovery.

NOTE 1   Factors affecting quality include where and when the information originated, who created it and for what reason. See Annex B for additional information.

The organization should monitor social media for information regarding the risks it presents to the public and various stakeholders, and specific incidents and comments regarding the capability or reputation of the organization.

The organization should:

— select appropriate digital tools for monitoring and analysing social media to improve monitoring efficiency and effectiveness;

— use keywords and metadata tags appropriate for the information it wants to track to help with the monitoring process;

— include all media in its overall monitoring, as well as the organization's blogs and website on which readers can comment;

— use social media to help correct inaccurate information or concerns identified on these platforms.

NOTE 2   Additional information on understanding the use of social media during the different phases of emergency management is included in Annex C. There are tools and services available that can monitor multiple networks and channels (see Annex A).

4.2.3.4   Monitoring during response and recovery

The amount or intensity of social media communication can be significantly greater during the response and recovery phases, with the response phase likely to be the greatest as resource requirements can quickly exceed the resources available within the organization.

The organization should identify the external resources necessary to ensure that adequate monitoring can be maintained. Additional resources can include emergency services, organizations with similar interests that are willing to help and organizations that specialize in providing social media services.

4.2.4   Dissemination

The organization should provide ongoing information to the public and various stakeholders.

Before an incident: by transmitting messages that focus on preventing or preparing for emergencies and tips for effectively using social media during an incident.

When an incident or crisis has occurred: by transmitting information that focuses primarily on responding to, and recovering from, a specific event. The organization should keep an accurate record of the messages communicated, recording the platform, date, time, text and level of approval where applicable.

Typical messages to the public and various stakeholders can include information on:

— preferred or official methods for reporting an incident and the consequences for not using these;

— platforms and channels available for reporting incidents or receiving information about emergencies;

— potential hazards such as forest fires during dry spells;

— tests of the alert system, alerts and expected actions to be taken, such as self-preparedness, and avoidance of hazardous situations;

— where and when official updates will be posted;

— which organizations are responding to the incident and the role of each.

NOTE   For organizations performing a public warning function, ISO 22322 gives guidance on how to integrate public warnings with social media and on timely decision-making to take place between monitoring and dissemination.

4.2.5   Interaction

The organization should interact with social media users in a timely manner, as social media users expect a faster response to comments or questions posted online than from a request sent via email. This enables the organization to build and maintain relationships and trust with the public, before, during and after an incident or a crisis.

The organization should interact with social media users by:

— answering questions about risks and how the public can prepare for, respond to incidents;

— answering questions about how the public can assist (e.g. donation management, volunteering);

— requesting and gathering information to assess the public's level of preparedness, awareness of emergency procedures, willingness to help and ability to improve situational awareness;

— providing guidance for sharing relevant information;

— guiding the public on appropriate social media behaviour;

— correcting inaccurate information by providing clarification;

— ignoring inappropriate comments by predefined criteria.

5 Planning

5.1 General

The organization should:

— consider the implications of regulations, its own policies, potential benefits and threats when planning its use of social media;

— develop its social media objectives and strategy;

— provide sufficient resources for implementation.

5.2 Policies

The organization should ensure its policies are adequate to support the use of social media.

5.3 Risk

The organization should:

— consider the risk of using and not using social media to support emergency management;

— develop strategies and objectives to address these risks;

— minimize risk by providing adequate financial support and trained human resources to develop and maintain capability to use social media, especially during an emergency or crisis situation;

— identify how social media information will be assessed and verified to ensure adequate quality for its intended use;

— develop procedures to prevent the posting of confidential or inappropriate information;

— develop procedures on how to address inaccurate information and especially purposefully misleading information posted on social media;

— manage the expectations of the public and stakeholders regarding the use of social media for reporting emergencies, responding to social media posts and the use of social media to remain informed.

NOTE   Guidance on risk management is given in ISO 31000.

5.4 Social media objectives

The organization should support its emergency management by aligning its social media policy with its communication objectives by considering:

— strategies to improve situational awareness and increase efficiency through improved information flow;

— duties to inform citizens and to improve trust and its relationship with the public and various stakeholders;

— ways to provide first-hand information using its own social media platforms and channels;

— the need to increase control over a situation using an additional direct channel;

— its standard operating procedures for managing social media engagement;

— the need to identify appropriate external resources and to enhance awareness of, and alignment with, cooperating organizations.

NOTE   Improving interaction with the public and various stakeholders includes: the ability to execute immediate action using direct channels; providing clear and timely information; being present where the public and various stakeholders look for information; establishing the organization as a trusted source of information; and establishing communication with external stakeholders.

5.5   Social media strategy

The organization should identify how the use of social media supports its overall communication strategy. The strategy should address:

— how to inform employees about the organization's social media strategy and responsibilities for managing social media;

— training for personnel to fulfil assigned responsibilities regarding the use of social media technology;

— short- or long-term objectives on the use of social media for monitoring, dissemination and interaction;

— the identification of target audiences;

— the types of messages to be delivered and the relationships to be built or strengthened with target audiences to support all phases of an incident or crisis;

— the responsibilities for timely monitoring and disseminating messages and interacting with social media users on selected social media channels;

— how external contract personnel or volunteers who provides virtual support to emergency management using social media may be involved.

NOTE   These contract personnel are sometimes called "virtual operations support teams (VOST)".

The social media objectives and strategy demonstrate how the uses of social media can support operational decision-making.

The organization should consider how to:

— enhance situational awareness;

— improve the quality of dialogue between citizens and authorities;

— disseminate warnings in a timely manner;

— evaluate emergency management activities through feedback from citizens;

— identify, evaluate and manage volunteer support opportunities;

— support development and operation of self-help-communities during an emergency.

5.6   Resources

5.6.1   General

The organization should provide adequate internal and external resources to develop and maintain capability to use social media, especially during an emergency or crisis. Resources include:

— personnel capable of performing assigned duties;

— agreements for resources with other organizations;

— software and hardware for monitoring, dissemination and interaction.

5.6.2 Digital tool selection

The organization should select appropriate digital tools and methods for monitoring, dissemination and interaction, recognizing the fast evolution of tools in social media. When selecting tools, the organization should consider the following criteria:

— social media platforms and channels being used;

— volume of social media activity;

— diversity of the audience considering language, accessibility and geographic location;

— resources to support;

— overall workload, for example, when more than one emergency occurs at the same time;

— size, type and duration of the emergencies, including those managed in cooperation with other organizations or alone;

— filtering and organizing information for specific purposes;

— technical constraints of the infrastructure of digital tools;

— tools that support the networks and channels;

— compatibility with the digital tools used by cooperating organizations.

NOTE   See Annex B for an explanation on filtering and assessing information.

6 Implementation

6.1 General

The organization should use its social media objectives and strategy to implement its use of social media.

6.2 Monitoring

To improve situational awareness, the organization should monitor social media as appropriate for the organization and the incident. It should consider monitoring:

— the social media channels used during emergencies;

— information included in other media;

— the specified geographic area impacted;

— who are the influential users;

— any issues that require a response;

— inaccurate and purposely misleading information;

— information to be shared with other emergency services or organizations with similar risks;

— information on the risks the incident presents to the public and various stakeholders;

— information that affects the reputation of the organization;

— the impact of the organizations' social media activities.

NOTE   The information obtained from monitoring can be used to assess the quality and accuracy of the information shared. See Annex B.

The organization should consider ways to cooperate with other emergency services and other organizations with similar interests. It should identify information to be shared according to procedures for identifying priorities and action points for dissemination and interaction based on the perceived threat levels.

6.3   Dissemination

6.3.1   General

The organization should use social media to disseminate information to support its social media policies, strategy and objectives. This dissemination of information should:

— consider different stakeholders' expectations;

— specify the information content, possibly using predefined text;

— identify the geographic area or location to which the information applies;

— use selected information channels;

— respect the culture of the specific channels and target audiences;

— identify other organizations to be informed;

— be coordinated with other cooperating organizations;

— provide clear information to transient populations unfamiliar with the local area;

— specify when it is to be disseminated and the time frame to which the information applies;

— direct social media users to official information sources;

— repeat information when necessary to ensure it reaches a larger number of social media users;

— communicate policies regarding the use of social media throughout the organization.

NOTE   For guidance on information content, see ISO 22322:2015, 5.4.3.3.

6.3.2   Guidance on specifying content

In determining the message content, the organization should consider:

— including alerts about a specific incident or emergency;

— using a writing style appropriate for the selected social media channel's culture to ensure that the communicated messages and the feedback received is appropriately handled;

— how to inform the public and various stakeholders about areas which should be avoided because of hazardous conditions;

— information for the public and various stakeholders about the organizations responding to the incident, the role of each and where and when official updates will be posted;

— clarifying that social media should not be used to report an emergency; providing information on the applications, such as mobile applications, to be used to report emergencies or receive information.

The organization should ensure that shared information is factual and intelligible.

6.4 Interaction

When interacting with social media users, the organization should answer questions and provide guidance in response to posted information in a timely fashion. It should request information from social media users for clarification if required, correct inaccurate information, and identify and challenge inappropriate behaviour.

6.5 Citizens' guidance

The organization should provide guidance to the public on how it will use social media for emergency management and on how the public can most effectively interact with the organization on social media.

NOTE   Annex D presents guidelines for developing citizens' guidance.

7 Review and improvement

7.1 Review

The organization should use the information obtained from its review of the use of social media as part of its continual improvement policy. Reviews should occur:

— on a regular basis;

— after major incidents and exercises;

— after major changes in the organization or its strategy;

— after significant change to technologies.

7.2 Continual improvement

In order to continually improve its use of social media, the organization should consider:

— the alignment with the organization's communication strategy and objectives, social media policies and strategy;

— changes in society's and stakeholders' expectations;

— changes in available social media channels and the popularity of channels;

— advancements in technology (e.g. digital tools) for handling social media;

— analytical information and lessons learned from the use of social media before, during and after incidents and the results from tests, exercises and audits;

— interaction with the public and various stakeholders.

Annex A
(informative)

Types of social media platforms, channels and related tools

Platforms, channels and related tools can be used for monitoring, dissemination or interaction. Some types are as follows.

— Text messages: Useful for providing short messages to persons who have subscribed to receive them and to receive information from those persons.

— Blogging: Useful for providing more extensive messages, diagrams or photographs to anyone who wants to follow the organization's blog. There is no need to subscribe to read a blog. Interaction can occur if the blog is set up to receive comments from readers.

— Micro-blogging: Useful for sending short messages and links to anyone who wants to follow the organization's account. Messages can be forwarded or replied to.

— Websites: Useful for providing more extensive messages, diagrams or photographs to anyone who wants to read the organization's website. Reading a website can be done either with or without subscription. A website can include a blog and interaction can occur provided it is set up to receive comments from readers.

— Social networking sites: Useful for sharing information and providing interactions. Includes a capability to create groups or join existing groups to support an organization's communication objectives.

— Photo sharing: Useful for communicating information if the information can be most effectively communicated with a photograph. Useful for receiving pictures from citizens about an emergency to improve situational awareness.

— Video sharing: Useful for audiovisual dissemination of information. Interaction is possible by enabling viewers to comment on videos. Useful for receiving video from citizens about an emergency to improve situational awareness.

— Podcasts: Useful for audio or audiovisual dissemination of information.

— Mapping: Useful for sharing information which can be most effectively communicated with a map.

— Crowdsourcing: Useful to obtain services from the crowd. It divides work between participants to achieve a cumulative result. The word crowdsourcing is a combination of crowd and outsourcing.

Annex B
(informative)

Quality assessment and verification of social media

B.1 Objectives

Monitoring should focus on high quality, relevant information in order to avoid an overload of information and to identify irrelevant, inaccurate and intentionally misleading information. The following aspects should be considered to assess and verify information on social media:

— Origin: Is this original content?

— Source: Who uploaded the content?

— Date: When was the content created?

— Location: Where was the content created?

— Reason: Why was the content created?

— Validity: Is the information correct, inaccurate or intentionally misleading?

B.2 Quality assessment

The assessment of information can include, but is not limited to:

a) quality criteria (e.g. relevancy, credibility, understandability, timeliness, completeness) to assess information;

b) use of relevant filters (e.g. metadata tags);

c) use of related tools;

d) use of external resources/services;

e) lessons learned regarding quality assessment and verification.

B.3 Examples of quality criteria

Useful quality criteria are as follows.

a) Understandability: Can be indicated by metrics such as readability, language used and average length of words.

b) Credibility:

1) Number of followers: A high number of followers indicates a valuable network and is an indicator of reputation in social media. The indicator is the total number of followers of a post's author as provided by the social media network.

2) Status: Authors who were active before the actual event have a higher status. Messages from active authors can be considered more credible. The account has probably not been created recently for spreading intentionally misleading information. The indicator is the total number of status messages of a post's author as provided by the social media network.

3) Verified accounts: Some social networks allow users to be verified, often affecting users who are in the public eye. Messages posted with a verified account are more credible because it is unlikely that the account is fake. The author gains a higher reputation and the message has higher credibility value. The indicator states whether the author's account is verified as provided by the social media network.

4) Trusted account: If the message is sent from a trusted account, the reputation is very high. A manually managed list of trusted accounts from trustworthy authors can be predefined. The list can include accounts of local emergency responders, authorities or governments. This indicator states whether or not the author's account is trusted.

c) Timeliness: The timeliness increases if the message was posted in a close time frame to the incident.

Use metrics appropriate to the local circumstances. In one specific region, a high number of followers is 100 whereas, in another region, a high number of followers starts at 500.

B.4 Use of external resources

Agreements with external contract personnel or volunteers who provide virtual support to emergency management using social media may support the filtering and assessment of information by:

— monitoring multiple channels;

— verifying information;

— filtering, assessing and forwarding monitored information to authorities with regard to quality criteria;

— supporting detection of inaccurate information and abusive behaviour;

— reacting to inaccurate or intentionally misleading information;

— amplifying citizen reach by sharing information;

— providing advice and tips to the public and emergency services;

— supporting the dissemination of information to, and the interaction with, the public.

NOTE   These contract personnel are sometimes called "virtual operations support teams (VOST)".

Annex C
(informative)

Examples of using social media by emergency management organizations

Table C.1 — Examples of monitoring, dissemination and interaction before, during and after an incident

		Actions	Before	During	After
A	dissemination of recommendations for actions	disseminate	✓	✓	✓
B	accepting questions from the public	interaction	✓	✓	✓
C	mobilization of volunteers	monitoring interaction	✓	✓	✓
D	obtaining and providing feedback	interaction	✓	✓	✓
E	dissemination of warnings	disseminate	✓	✓	
F	raising awareness of risks/ promote prevention	interaction monitoring	✓		✓
G	sharing status updates about the emergency	disseminate		✓	
H	monitoring and analysing the situation by using information from social media	interaction monitoring		✓	✓