

POLICY BRIEF

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Accessibility for all: **Fostering inclusive uses of social media in disaster communication**

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LINKS

Strengthening links between technologies and society for European disaster resilience



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Accessibility for all: Fostering inclusive uses of social media in disaster communication

In recent decades, many organizations working in the field of disaster risk management have adapted to using social media in their communication processes. This allows organizations to improve their collaboration with many different parts of society, including the increased opportunity to engage with people with different abilities and vulnerabilities. As a widespread communication system, social media has become an indispensable resource to analyse the needs of different groups, to craft tailored communication messages, and to mobilize communities in times of disasters.

However, disaster management organisations and policy makers continue to deal with several challenges when it comes to inclusive communication through social media with diverse groups, including the most vulnerable and disadvantaged. They face difficulties ensuring that the information they share on digital channels is accessible to all parts of the population, that it is understandable and actionable (meaning that people can take the necessary actions based on the information), and that information and knowledge sharing is multi-directional.

These challenges can be overcome by targeting accessibility issues in all phases of the disaster cycle (i.e. before, during, and after). In this case, the concept of accessibility refers to ensuring inclusive, reliable approaches for making social media channels and information accessible, which has a potential to address and reduce vulnerability and to strengthen resilience within local communities.

This policy brief provides evidence-informed recommendations for more accessible and inclusive uses of social media to improve disaster communication. The recommendations are based on the outcomes from the LINKS project, an extensive study across Europe on the uses of social media in disaster risk management under the EU Horizon 2020 Framework. The recommendations are designed to address disaster risk management stakeholders working at three levels: operational, strategic, and policy. This is done to show the interdependencies and conditions needed across the three different levels for the effective implementation of the recommendations.

Key Actions Points:

Disaster management organisations:

- ✓ Tailor your communication platforms, channels, and information to be accessible to all members of society, which means considering the needs of people with different vulnerabilities, cultural backgrounds, and socio-economic conditions.

Strategists:

- ✓ Create a digital accessibility strategy for your organization, that will provide updated guidelines with clear actions for 1) acknowledging and assessing the specific accessibility needs of different groups of people and 2) incorporating that knowledge into your organization's information and communication processes.
- ✓ The accessibility strategy should incorporate an iterative roadmap, used to identify, and manage risks, gaps in policies, and needed technologies and resources; it should define priorities and milestones in terms of users' needs and digital accessibility validation, e.g. to measure if the different information and channels are accessible and useable to different users in different circumstances.

Policy makers:

- ✓ Promote and allocate resources to disaster management organisations for investments in inclusive disaster communication practices, digital applications, and expertise (e.g. trained digital mediators who are specifically trained to help people needing different accessibility needs).
- ✓ Implement policies and regulations which ensure the accessibility to disaster communication and information for all parts of the society.

How can we define accessibility?

In LINKS, we define accessibility as the quality of being able to be reached by everyone, including people with diverse needs. Accessibility needs to be inclusive, as society cannot be considered as a single homogeneous group made up of individuals with the same needs. Indeed, a society includes communities and individuals differentiated by cultures, values, beliefs and by diverse physical and intellectual skills. Therefore, the access to information and means of communication in disasters, through social media or other channels, needs to be tailored according to different needs. Evidence shows that the exclusion of different parts of the population from the digital world can exacerbate their exposure to risks. On the other hand, the outcomes from the research undertaken in the LINKS project confirms that the inclusion of these groups through increased access to relevant digital applications and information can bring diverse skills and knowledge into to disaster management planning and actions and strengthen the overall resilience of society. Below we define four core areas of accessibility, along with key recommendations at operational, strategy, and policy levels.





Material accessibility: Ensuring all parts of society have access to digital applications, skills, and information

Digital inclusion can be hindered by various factors: for example, differential access to technological applications like phones or computers due to socio-economic circumstances, unequal connectivity to internet or broadband due to geographical location, or varied levels of familiarity with the basic functions of social media due to exposure, age, and socio-cultural norms.

Recommendations at operational level:

- ✓ Provide access to information which does not require internet connectivity through medias such as radio, television, newspapers, informative pamphlets, and citizen groups and associations.
- ✓ Promote the use of emergency apps that can function without needing frequent updates to ensure compatibility with older digital devices.

Recommendations at strategy level:

- ✓ Integrate alternative communication strategies for those who lack digital devices, for instance relying on trained outreach personnel to spread risk information or to alert communities with emergency sirens and alarms systems, via landline phone trees, or by reaching people at home or at other in-person community spaces.

- ✓ Conduct an assessment of the accessibility to digital channels and information by different groups within the society, including minorities and the most vulnerable, by establishing relationships and consistent engagement with key representatives and members of those different groups.

Recommendations at policy level:

- ✓ Promote and fund educational activities for improving digital skills of individuals who have different levels of familiarity with technological devices such as smart phones or struggle with basic functions of social media.
- ✓ Enable and invest in digitally inclusive environments and equipment (i.e. more privacy preserving public Wi-Fi hotspots, charging stations).

Physical and sensory accessibility: Tailoring digital channels and information to specific physical and sensory needs

Physical and sensory challenges can hinder the access to digital information before, during, and after a disaster. On one hand the virtual world tends to exclude groups with diversities of this kind (e.g. visual, hearing, mobility), on the other it provides a series of resources that have potential to involve *everyone*. Indeed, technological devices and special apps can provide a series of features that can facilitate the access to information for people with specific needs.

Recommendations at operational level:

- ✓ Integrate keyboard navigation services into every organization's digital platforms (e.g. websites, apps), which provide specific functions to support the interaction with and navigation of the digital interfaces (e.g. without a mouse) for people with physical and sensory needs, such as persons with visual impairments and mobility issues.
- ✓ Promote and normalise the use of apps and platforms that provide features for persons

with physical and sensory needs, such as transcription support functions for people with hearing impairments.

- ✓ Provide the same information in different media formats (including images, video, and sound).

Recommendations at strategy level:

- ✓ Engage with individuals/groups with sensory and physical needs to learn more about their digital practices and requirements.
- ✓ Gain insights from assistive technology experts, such as digital mediators who are specifically trained to help people needing different accessibility accommodations (e.g. persons with disabilities).

Recommendations at policy level:

- ✓ Promote programmes with teaching activities on strengthening digital capacities, addressing the needs of both assistive technology experts and people with physical and sensory accessibility issues.
- ✓ Promote the recruitment and training of digital mediators, both within disaster management organizations and within the community.

Cultural accessibility: Ensuring the knowledge shared on digital channels is inclusive and recognizes the diversity of the society

Linguistic and demographic differences play an essential role when it comes to cultural accessibility in disaster communication. Factors such as age, gender, education, nationality, ethnicity, and economic differences, can affect the freedom of access to social media as well as different social media communication practices. These factors can influence if a group of people is considered as *advantaged* or *disadvantaged* in their accessibility to information communicated digitally in all phases of a disaster. Language can further impede access because social media, and digital technologies in general, often make use of English as the "common language". Though widespread, its use is neither consistent nor singular; words and phrases do not always carry the same meaning thus adding to the risks already being faced in times of vulnerability.

Recommendations at operational level:

- ✓ Be active on social media platforms used by groups who carry with them cultural communication practices that differ from mainstream Europe (e.g. WeChat and Weibo for the Chinese community).
- ✓ Communicate messages and information in plain language and avoid technical terms and the use of acronyms or symbols in your communication.
- ✓ Provide translation support (e.g. subtitles) on digital platforms and channels in as many languages as possible to reach different linguistic groups within the population.
- ✓ Use social media platforms and other information channels which employ safeguards to filter and block misinformation and offensive comments (i.e. hate speech, hoaxes).

Recommendations at strategy level:

- ✓ Work together with local representatives in the community for people with different cultural backgrounds to understand their needs, and tailor your communication strategies and messages accordingly.
- ✓ Implement safeguards (e.g. fact checkers, AI) to eliminate offensive messaging and to mitigate misinformation on the digital applications and information channels of your organization.
- ✓ Implement digital literacy campaigns and programmes which strengthen digital competencies, empower, and promote good practices for online safety for different groups of people in the population.



Recommendations at policy level:

- ✓ Establish local mechanisms and spaces, for instance physical meetings at a community centre or an online forum, to facilitate engagement among disaster management organizations, local community representatives, and other relevant actors to ensure that people coming from different cultural backgrounds are both heard and informed.
- ✓ Promote and allocate funding for digital literacy programmes, and towards the implementation of safeguards for online safety and the management of misinformation on the digital channels of public institutions.
- ✓ Set policy priorities towards the implementation of safeguards for the management of misinformation by social media platforms providers, which force accountability and responsibility.

Relief accessibility: Strengthen relief efforts by ensuring digital channels and information can be accessed and shared by all during disasters

Being digitally connected and informed also means being represented in society. The result of this precondition is the increased ability of people to ask for help and receive assistance. In this case, social media can function as an ally, by providing digital platforms where citizens can exchange information with each other in disasters and provide useful feedback to disaster management organizations and relief workers. The sense of a cohesive and united community, capable of communicating and providing mutual support, can be established even in the most severe disasters.

Recommendations at operational level:

- ✓ Use different social media platforms and channels to reach a more diverse audience, and to increase situational awareness during disasters.
- ✓ Promote the use of official channels (even in preparatory phases) to ensure people access reliable and verified information.

Recommendations at strategy level:

- ✓ Consider the use of digital platforms and apps which can enable direct, two-way exchange of information and needs with citizens during and after the response phase of a disaster.

Recommendations at policy level:

- ✓ Promote and facilitate cooperation among different authorities and other relevant stakeholders in preparatory phases, for aligning expectations and ensuring stronger coordination of emergency messaging and information across communities during disasters.

Key Messages

- ✓ *Accessibility in disaster communication includes challenges for the population related to material, physical, and cultural barriers to accessing and sharing information and knowledge on social media platforms and digital applications.*
- ✓ *In particular, those who are the most vulnerable, including people with disabilities, low-income groups, and the elderly, face additional/unique accessibility challenges that prevent them from receiving and sharing reliable and up-to-date information and exacerbate their exposure to risks*
- ✓ *Addressing these accessibility issues in disaster communication can strengthen collective risk awareness by ensuring that all parts of the population have access to reliable information, and that the information has been shared in a way that all stakeholders can understand and benefit from.*
- ✓ *Access to information should therefore be crafted and delivered according to the diverse needs and skills of different members of the population, in all phases of disasters.*

FURTHER READING

Bonati, S. (2020). Disaster vulnerability knowledge base - A Consolidated Understanding of Disaster Risk Perception in Social Media and Crowdsourcing. Deliverable 2.1 of LINKS: Strengthening links between technologies and society for European disaster resilience, funded by the European Union's Horizon 2020 Research and Innovation Programme (No. 883490). <http://links-project.eu/deliverables/>

Pazzi, V., Morelli, S., & Bonati, S. (2021). Disaster Risk Perception Knowledge Base - A Consolidated Understanding of Disaster Risk Perception in Social Media and Crowdsourcing. Deliverable 2.2 of LINKS: Strengthening links between technologies and society for European disaster resilience, funded by the European Union's Horizon 2020 Research and Innovation Programme (No. 883490). <http://linksproject.eu/deliverables/>

Froio, C., Nardini, O., & Graziani, F. (2023). Report on the Monitoring DRPV – related Broader Context Application. Deliverable 2.6 of LINKS: Strengthening links between technologies and society for European disaster resilience, funded by the European Union's Horizon 2020 Research and Innovation Programme (No. 883490). Retrieved from <http://links-project.eu/deliverables/>

Andersen, N, Nielsen, A. B., Raju, E., Patil, T (2023). Policy Brief: Targeting Communication in Disasters, LINKS project <https://cloud.links.communitycenter.eu/index.php/s/boiypANyHPn7ZQF>

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