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Civil Protection Online Communication: A Comparative Analysis of European Union Member States

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Abstract. This paper focuses on the study of the online presence of Civil Protection from member states of the European Union. The purpose of this study is to examine the content presented in the webpages of civil protection organizations from several member states as well as to identify common patterns or differences in their online presence. The analysis focused on eleven (11) Civil Protection websites that had an English version. The majority of these websites had sections such as a presentation of the civil protection organization, contact information, hyperlinks to social media as well as , a section with announcements and a section on the European Civil Protection Mechanism / international relations. While on the contrary, to a lesser extent, sections with audiovisual material, information on a disaster or emergency as well as sections on volunteering and 112 were found. The results could offer a significant contribution to the understanding of the digital content that the specific websites choose to communicate, their role in disaster communication as well as to the development of approaches to improve communication through Civil Protection websites.

Keywords: Civil Protection, Website, Online Communication, Internet, Disasters, European Union

1. Introduction

People over the years have been and continue to be confronted with events that can interrupt their daily activities, cause damage (to buildings/structures, personal belongings), injuries and even death. In addition, they have a negative impact on people, communities and nations. These events can be categorized as crises, emergencies and disasters. The terms 'emergency', 'crisis' and 'disaster' have distinct meanings and vary in terms of their size, scope and duration (McEntire, 2014; Chasiotis, 2013). Each of these events requires action by government officials, businesses, non-

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profit organizations, citizens/ bystanders, and even victims and survivors themselves. Toward to that goal the European Commission established the EU Civil Protection Mechanism in October 2001, in order to coordinate member states' Civil Protection Corps and to help countries in need in the EU and worldwide.

The ongoing complexity of these risks has also brought about change in the design of strategic messaging, leading to different expectations in terms of communication. Effective communication can have an impact on how people perceive and respond to risks, fostering trust between authorities, responders and the public, which is essential for better collaboration in a disaster (Tierney & Bruneau, 2007), the goal is to reduce the negative effects that could be caused (Sena & Woldemichae, 2006). New media and social media have changed communication, enabling fast, interactive, and borderless interaction. They play a crucial role in disseminating accurate and responsible information, and their use methodically and strategically can significantly minimize the impact of disasters during the mitigation, preparedness, response, and recovery phases.

The purpose of this research is to highlight the European Union Member States that have a separate Civil Protection website, to investigate the themes of the Civil Protection websites of European Union Member States that had content in English, the content of these themes and the way they are presented. In order to draw conclusions about the content they choose to communicate to the public and the differences or commonalities between them based on the content aiming to contribute to a broader understanding of how civil protection organizations implement online communication at EU level.

- How many European Union countries have separate civil protection websites and how many of them can be navigated in English?
- What is the content (type of information, similarities and differences) of the websites that are navigable in English?
- If there are sections dedicated exclusively to risk communication (e.g. disaster, crisis, emergency) and how is this done?

2. Literature Review

2.1 Civil Protection in the EU

The EU's civil protection mechanism has its roots in the early 1970s, when many European countries started to cooperate on civil protection issues. This was followed in 1987 by the creation of the Permanent Network of Civil Protection Correspondents to enable better cooperation and coordination. One of the first milestones in EU civil protection was the establishment of the European Civil Protection and Humanitarian Aid Operations (ECHO) in 1992, the department originally started as an EU humanitarian aid office, providing humanitarian assistance for more than 30 years. While in 1997, the first programs of activities of the EU Civil Protection Mechanism

were approved by the Council of the European Commission. In October 2001, the European Commission established the EU Civil Protection Mechanism, with the aim of strengthening cooperation between EU countries and the 10 participating states in the field of civil protection to improve disaster prevention, preparedness and response.. Over the years the organization has been reformed and improved to guarantee efficiency in any emergency situation. The aim of civil protection is to protect people from damage caused by disasters, while the central objective of civil protection systems at the national and EU levels is the ability to respond quickly and effectively in the event of a disaster or imminent disaster (European Commission, 2013). The main functions of the EU civil protection mechanism are: coordination and communication; resource mobilization; training and capacity building; prevention and mitigation (EU Civil Protection Mechanism, European Commission, 2024).

According to Kuipers, Boin, Bossong, and Hegemann (2015), civil security systems in Europe show great diversity in structures, policies, rules, and practices; countries are organized differently in their efforts to protect citizens from a variety of threats to their safety and security. Each is bound by different legal and constitutional frameworks (Kuipers , Boin, Bossong , & Hegemann, 2015). In addition, there is a clear trend towards "all risk" security policy systems, i.e. a risk management approach that addresses all possible risks rather than specific threats. Although civil protection systems respond to emergencies in a similar way (Dadoudi , 2017) , practices differ significantly, with countries using different laws and strategies to deal with crises.

2.2. Disaster Communication

Communication is a critical function in disaster, crisis and emergency management. The dissemination of timely and accurate information to the general public, community officials and the media plays an important role in the effective management of disaster response and recovery activities. By communicating about preparedness, prevention, and mitigation, we can encourage actions that minimize the risk of future disasters. (D. Haddow & S. Haddow, 2008). Disaster communication can be categorized according to the period of communication. 'Emergency' communication takes place during a disaster where there is a need for rapid dissemination of vital information. On the other hand, "long-term" communication takes place over an extended period before and after emergencies or disasters (Dufty, 2020). Disaster communication is the responsibility of the government and flows through various government agencies (federal, state, and/or local), ideally in a coordinated manner (Coombs W. , 2010). According to D. Haddow & S. Haddow, the mission of an effective disaster communication strategy is to provide timely and accurate information to the public in all four phases of management (Haddow & Haddow, 2014). Effective communication can have an impact on the way people perceive and respond to risks, enhance trust between authorities, responders and the public, which is essential to better cooperate in a disaster (Tierney & Bruneau, 2007), in order to reduce the negative impacts that could be caused (Sena & Woldemichae, 2006). However, there are also some challenges in communication in the different stages of managing a disaster (before, during and after an event). For example, socio-economic inequalities , which often lead to unequal access to information and resources, preventing the dissemination of preparedness measures among marginalized communities (Paton & Johnston, 2001). Data overload during a disaster from various sources , leading to information overload and creating difficulties in decision making (Dynes, 2006). And the obstruction of the

dissemination of reliable information on available resources, assistance programs and reconstruction efforts (Tierney & Bruneau, 2007).

2.3. The role of online communication in disaster management

Technologies such as laptops, mobile phones, text messaging systems, wireless networks have changed the way we communicate and the way news is gathered and distributed. All these developments have also brought about a change in disaster communication, having revolutionized the decision-making process, knowledge enrichment and communication (Karamanou & Valsamos, 2016). The internet and online platforms are increasingly used for disaster mitigation as a means of disseminating information because it is easy for people to access it. Twigg states that "the internet has brought a revolution in information for risk reduction". While, Rapisardi, Di Franco, & Giardino (2014) pointed out that the time when there is no disaster/crisis should be used to build and establish an online presence or online reputation to help people understand the phenomena and the Civil Protection intervention model (Rapisardi, Di Franco, & Giardino, 2014). In general, digital platforms are used to continuously update information, spread public awareness of disaster conditions, build communities and volunteers to manage aid, raise funds, monitor and provide knowledge about all situations that occur, including disaster status reports (Topno, 2016).

The development of a well-marked website can be a highly effective means of making the national and international presence of an organization (governmental or non-governmental) or business felt. Also, websites are used by public agencies, citizens, businesses, and non-profit organizations to collect information about disasters (Pine, 2017). According to Barrantes, Rodríguez, & Pérez (2009), the websites of disaster management or health crisis management organizations should become the preferred reference point for those seeking reports and analyses about the disaster or emergency, the needs of the affected population, and the progress being made to address the situation (Barrantes, Rodríguez, & Pérez, 2009). While Twigg (2004) stresses that a website that includes information on disaster plans certainly helps in managing the consequences of a disaster (Twigg, 2004). In addition, government and non-profit organizations use the internet not only for forecasting and warning, but also as channels for educating the public, providing a wide range of general and specific advice on risk reduction (Twigg, 2004). Such websites could provide a more efficient and effective option for the rapid, planned and global dissemination of disaster information. Their application is shaped by the context, the users and the nature of the crisis (Singh & Singh, 2022).

Another online communication channel is social media, which plays an important role as a disaster communication tool (Houston et al., 2014). According to Houston, Hawthorne, Perreault, & Park the potential users of social media in a disaster are: (i) individuals, (ii) communities, (iii) organizations, (iv) governments, and (v) news media (Houston, Hawthorne, Perreault, & Park, 2014). The use of social media can be categorized into 2 categories: 1) Passive dissemination of information, i.e. personal communication, and 2) Systematic use as a tool in disaster management, which defines that social media will be indirectly influenced by how the prevention team operates and the community's behavior in an emergency (Sutton, Shklovski, & Palen, 2008). Their application in each phase of a disaster (before, during and after) is different.

3. Methodology

3.1. Method of data analysis

The method of data analysis was content analysis, which was used to analyze the information available on each website (webpage) in order to classify this information into categories. Content analysis was applied in this research to investigate the official websites (websites that have navigation in English) of the Civil Protection in EU countries; comparative analysis was used to analyze the main menu bar topics available on each website (webpage) and the individual characteristics of these topics. The use of the comparative analysis led to the extraction of quantitative results, in relation to the Civil Protection websites.

3.2. Research definition - Coding of data

The aim of the study was to analyze the websites of Civil Protection organizations in the member states, identify the main themes in the websites and compare them to reveal common patterns or differences across the member states.

The study focused on the analysis of websites over the time period 2023-2024. In order to determine which EU member states had a website in English, a list of 27 countries of the European Union was first created. The search was initially carried out through the Google search engine, using keywords such as civil protection plus the name of a country or civil protection/defense plus the name of the country or civil protection website plus the name of a country. Afterwards, an equal internet search was carried out through the official website of the European Union Civil Protection and more specifically in the section (What we do Civil Protection The national disaster management system) where both general information and a short presentation of each civil protection and contact information including links related to the civil protection of each country were found. After completing the recording of the data that resulted from this search, another search was made through the portal "Division of Powers", this portal contains the results of the descriptive study carried out by "The London School of Economics and Political Science (LSE)", "CASE - Center for Social and Economic Research" and "The Centre for Strategy & Evaluation Services (CSES)", and presents in a simple and understandable form information concerning the Member States of the EU. EU Member States, including information on Civil Protection (presentation of the organization and useful links to it). Finally, on completion of the recording of these results, a comparison of the results found in these three ways was made in order to make a final selection of the websites on which the study would be carried out. More specifically, 11 EU member states were found that had a Civil Protection website in English and were used for further analysis, the member states and the links for their Civil Protection websites are as follows:

	EU Members	Civil Protection Websites
1	Belgium	https://www.civilsecurity.be/en
2	Germany	https://www.bbk.bund.de/EN/Home/home_node.html
3	Danish	https://www.brs.dk/en/
4	Republic of Ireland	https://www.civildefence.ie/
5	Cyprus	https://civildefence.com.cy
6	Malta	https://mhascms.gov.mt
7	Portugal	http://www.prociv.pt/en-us/Pages/default.aspx
8	Sweedden	https://www.msb.se/en/
9	Czech Republic	https://www.hzscr.cz/hasicien/
10	Italy	https://www.protezionecivile.it/en/
11	Greece	https://civilprotection.gov.gr/en

Table 1 : EU member states that have a website in English and their links

For each website the titles of the main menu as well as of the subsections were recorded. This resulted in a list of evaluation criteria that was used to examine and compare the websites. The evaluation criteria were as follows:

Assessment criteria	Individual characteristics	
Presentation of civil protection policy	Categories - Method of presentation	Aim/Purpose
		Organization chart
		Presentation of the Administration
Contact information	Categories of contact information	Contact (phone numbers)
		Address
		E-mail
		Contact form
		Map
	Presentation method	Separate section
		Only on the home page
		Included in the section about us
		Separate section & Home page
Information available on natural disasters (in English)	Section with information on natural disasters	They have one such section
		They do not have such a section
	Categories of natural disasters	Fires
		Floods
		Severe weather events
		Earthquakes
		Landslides
		Volcanic eruption
		Tsunami
News/Announcements - Press releases	Section with News/Announcements - Press Releases	Available in English
		Do not have any
		Available but not regularly updated
	Content of announcements	The analysis is approximate
112 number	Detailed information about 112 (in English)	Do they have a section or general information on 112 within the website?

		No, i.e. no reference is made to 112
What is the most common social media	Which social media do they have Number of followers	Facebook
		Twitter
		Instagram
		Youtube
	The way they place the links of social media	Separate section
		Only on the home page
		Included in the section about us
		Separate section - home page
		Included in the section about us - home page
Audiovisual content	Separate section with audiovisual material	They have a section
		Do not have a section
	Content of audiovisual material available	Video
		Images
Volunteering	Section on volunteering	They have a section
		Do not have a section
Website accessibility	Websites that had a feature that made the site more easily accessible to people with disabilities	They have a section
		Do not have a section
	A section referring to the European Civil Protection Mechanism	They have a section

European Civil Protection Mechanism - International missions	and the international missions of each organisation	Do not have a section
Change in the content of web pages	Change in content when switching from English to the national language of the country concerned	Changes the content
		Does not change the content
FAQ	Websites that featured instrument content A list of frequently asked questions (FAQ)	Apply
		Not apply

Table 2: Evaluation criteria - Individual features

4. Results

4.1. Civil Protection websites in EU Member States (Websites)

The EU Civil Protection Mechanism consists of 37 countries in total: 27 EU Member States and 10 participating States (Albania, Bosnia and Herzegovina, Albania, Bosnia and Herzegovina, Iceland, Moldova, Montenegro, North Macedonia, Norway, Serbia, Iceland, Turkey and Ukraine). This research focuses on the 27 EU Member States and more specifically on the EU countries that have a Civil Protection website in English, 17 of the 27 countries have a separate Civil Protection website, while the remaining 10 have either integrated a civil protection section in the Ministry of Interior or the website is shared with that of the fire service (Table 4). Of the 17 countries that have a website, 11 of them have a website in English as well (Table 3).

They have a website in English	Do not have a website in English
1. Belgium	1. Bulgaria
2. Germany	2. France
3. Danish	3. Spain

4. Republic of Ireland	4. Romania
5. Italy	5. Croatia
6. Cyprus	6. Hungary
7. Malta	
8. Portugal	
9. Sweden	
10. Czech Republic	
11. Greece	

Table 3: EU Member States with a separate Civil Protection website

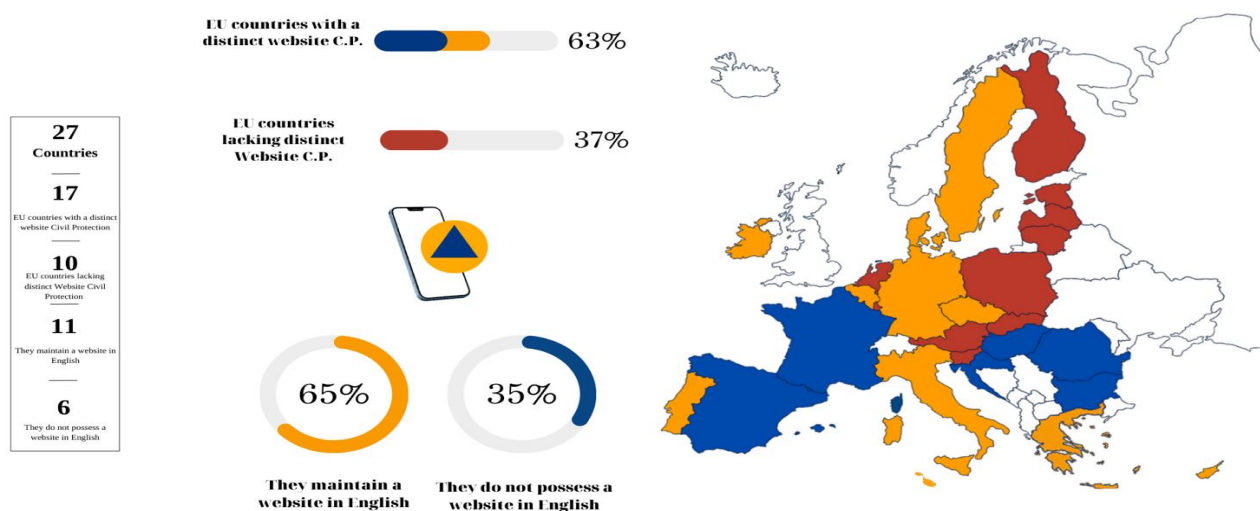


Figure 1: Overview map of civil protection websites in EU Member States

The table 7 shows which countries do not have a separate civil protection website, and which government and agency websites have a civil protection-related content.

EU Members	Comments
Austria	Section within the website of the Ministry of Interior
Estonia	Civil protection section within the website of the fire service
Latvia	Common page with the fire service
Lithuania	Common page with the fire service
Luxemburg	Section within the website of the Ministry of the Interior
Netherlands	Section within the website of the Ministry of the Interior
Poland	Civil protection and fire service module within the government website
Slovakia	Section within the Home Office website
Slovenia	Section within the website of the Ministry of the Interior
Finland	Section within the Home Office website

Table 4: EU member states that do not have a separate Civil Protection website

The analysis showed that the primary objective of most websites was to communicate information about the civil protection organization of the country, as all the websites (100%) had a section on the presentation of the civil protection organization (About Us). The majority of the information was focused on presenting the purpose of the organization while some included a short history. Few websites reported information on the administrative structure (45%) and the presentation of the management team (36%).

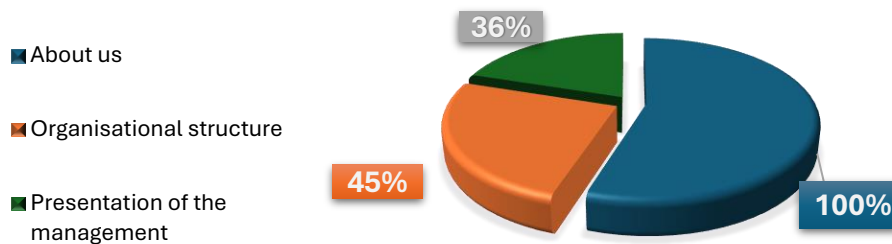


Figure 2 Presentation of civil protection (Organization Chart - Objective/Purpose -

Our mission

The MSB is responsible for issues concerning civil protection, public safety, emergency management and civil defence as long as no other authority has responsibility. Responsibility refers to measures taken before, during and after an emergency or crisis.

We work

- via knowledge enhancement, support, training, exercises, regulation, supervision and our own operations
- in close cooperation with the municipalities, county councils, other authorities, the private sector and various organisations
- to achieve greater security and safety at all levels of society, from local to global

Instructions specify the MSB's responsibilities and tasks

The Swedish Government steers the MSB via a body of instructions and an annual appropriation. The instructions specify the MSB's responsibilities and tasks. The appropriation specifies the objectives and reporting requirements, as well as the resources allocated for MSB administration and MSB activities.

About us

The Danish Emergency Management Agency (DEMA) is a governmental agency under the Ministry of Defence. We work to prepare society for, prevent and respond to crises, accidents and disasters.

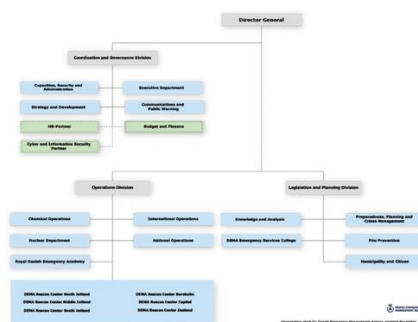


Image 1: Example About Us sections presenting the Mission - Organization Chart. Source: www.msb.se, www.brs.dk

Minister for Civil Protection and Sea Policies



Mattarella.

Nello Musumeci is the Italian Minister for Civil Protection and Sea Policies.

Nello Musumeci has served twice as President of the Province of Catania, European deputy for three terms and, until last September, President of the Sicilian Region. In the field of civil protection, Minister Musumeci served as Government Commissioner for the volcanic emergency on Etna in 2001 and was appointed as Commissioner for reconstruction the following year. He has served as delegate for the water crisis in the Province of Palermo, for the sea storms on the island of Salina, for toxic gases on the island of Vulcano, and, for the past five years, as Commissioner of the national government for the hydrogeological instability in Sicily.

On October 22, 2022, he took the oath as minister in the hands of President of the Republic Sergio

Image 2: Example of presentation Civil Protection administration. Source: www.protezionecivile.gov.it

It could be noted that a majority of websites had a section about the European Mechanism and International Relations (73%). This content presented the European Mechanism or the international missions of the respective civil protection mechanism.

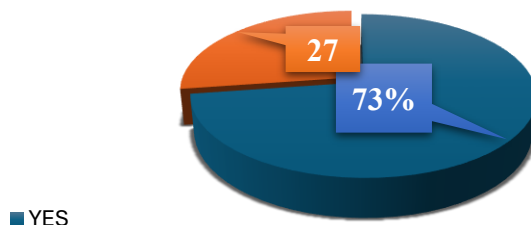


Figure 3: Civil Protection organizations which have a section on international relations – information on the Civil Protection European mechanism

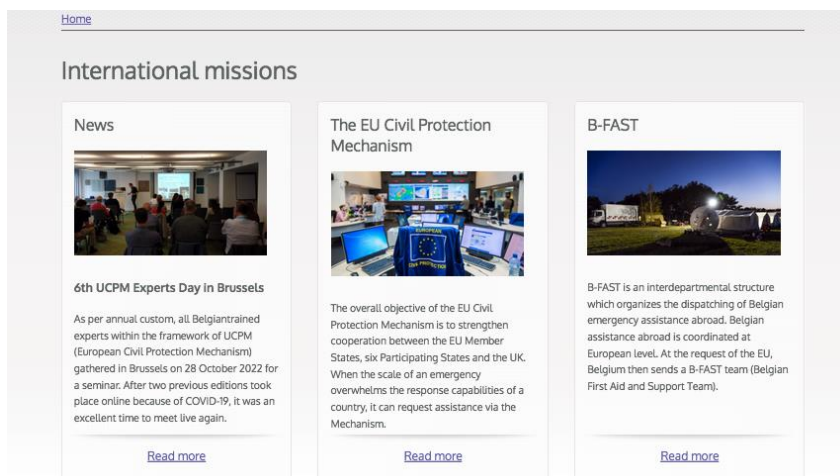


Image 3: Example of a topic for international relations. Source: <https://www.civileveiligheid.be/en>

Another theme that all websites have is the one related to contact information. The majority of these 91% have the most basic contact information, such as phone numbers, address, and email. However, there are also websites that provide additional ways of contact; more specifically, 45% of the websites choose to allow the visitor to contact them through a contact form, as well as incorporating a map with the location of the headquarters of the civil protection office.

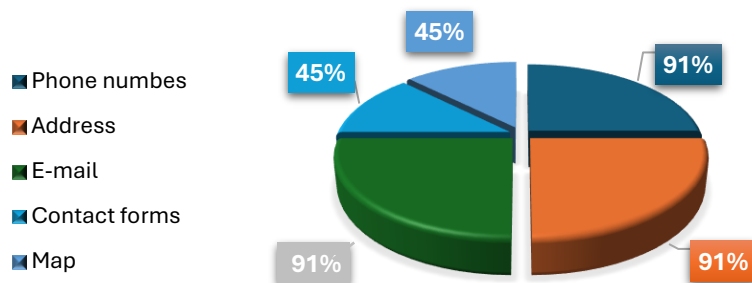


Figure 4: Categories of Contact Information

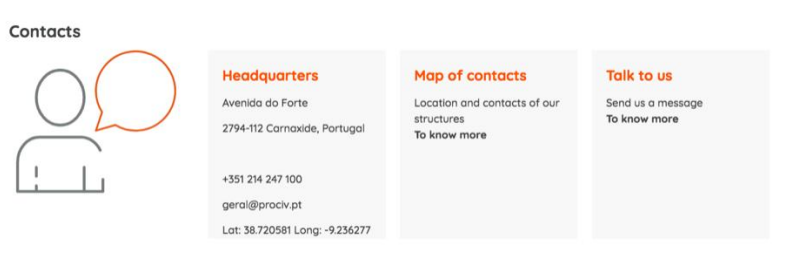


Image 4: Example sections with information. Source: <https://prociv.gov.pt/en/home/>

The majority of them presented this information on the home page as well as in a separate section(contact). And, also the high percentage of websites that had hyperlinks for social media or a relevant section, as only 2 out of 11 did not have hyperlinks for them on their website, while those that do mostly place them on the home page.

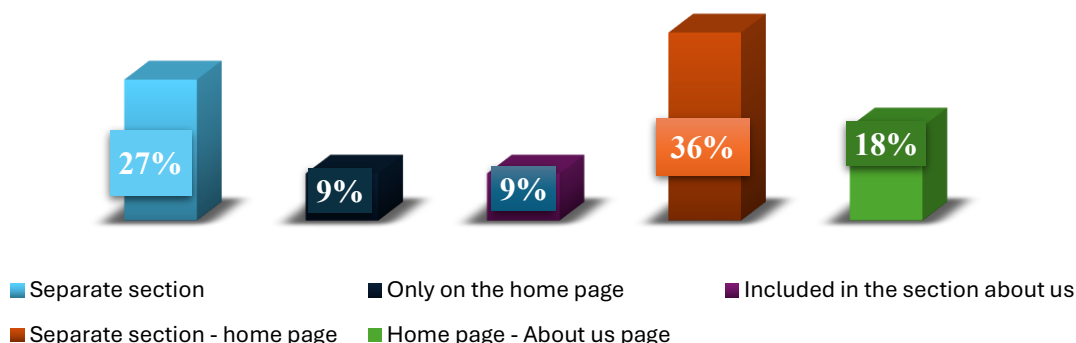


Figure 5: Placing contact information on the website



Image 5: Example of displaying contact information on the home page. Source: <https://civildefence.com.cy/en/>

As regards social media, it can be observed that the main tool used by civil protection organizations is Twitter (80%), followed by Youtube and Facebook where 7 out of 11 websites (64%) have an active account on these platforms, while fewer organizations use Instagram. The Italian website has a separate section on social media, giving information on how the Italian Civil Protection Agency uses social media and the social media it uses. Finally, it is also worth mentioning that the Danish and Czech websites have links to social media in their local language versions, while neither has a link in its English version.

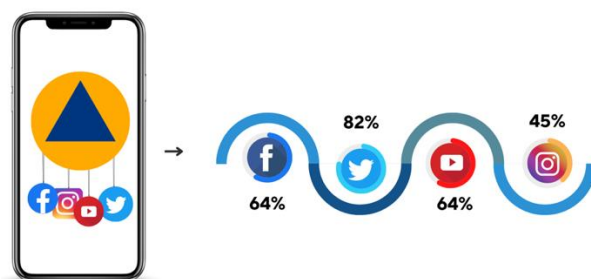


Image 6: Social media used by Civil Protection organizations.

As far as how each website chooses to place their social media links is different. The 67% of sites place them *on the home page*, either at the top before the menu or at the bottom of the page. While the Swedish website places them on the home page and also in a sub-section included in the "About Us" section. In a similar way they are also placed on the Italian website as the visitor finds them both on the homepage and in a separate section dedicated to social media.

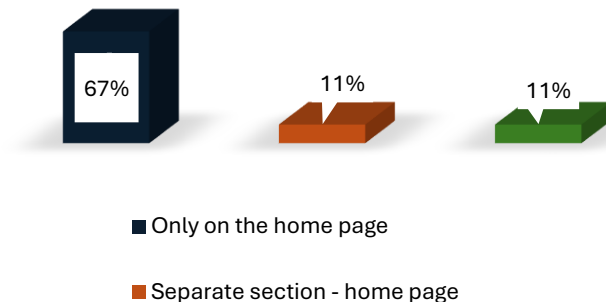


Figure 6: Where they put the social media links on their website

The next theme that most of the websites included was news/announcements. These news were related to actions undertaken by the respective organization. While their content was quite common across member states there was a difference in the rate of renewal of the posts, with 3 out of 8 not having renewed the content for more than six months (Fig. 10).

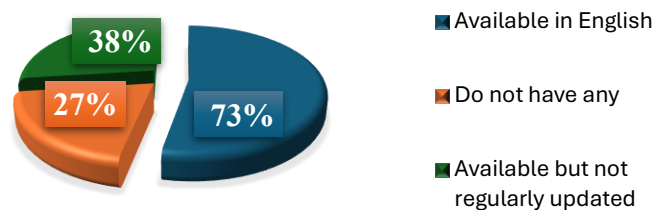


Figure 7: Which have a News/Announcement - Press Releases section

Communication by using audiovisual materials was not the main option of the examined websites. Only 3 out of the 7 websites that had this section provided rich content, which was mainly related to actions and activities of the respective organization (Fig. 12). In particular, on the German civil protection website the videos show how the civil protection (Germany) manages an emergency or disaster and how stakeholders work together, thus trying to promote more how civil protection works and emphasise its importance. Also such videos could be addressed to regional organizations involved in disaster response and how they could be better prepared for an emergency. The Italian Civil Protection website through its videos tries to promote the value and usefulness of the organization as well as the importance of preparedness, the videos are related to civil protection actions such as responding to a volcano eruption or participating in an event. Finally, only the civil protection website of Greece has videos with protection instructions, thus highlighting the importance of being prepared, the adverse effects that a disaster can cause. In addition, such videos aim to promote preparedness and how to react in the event of a disaster or emergency.

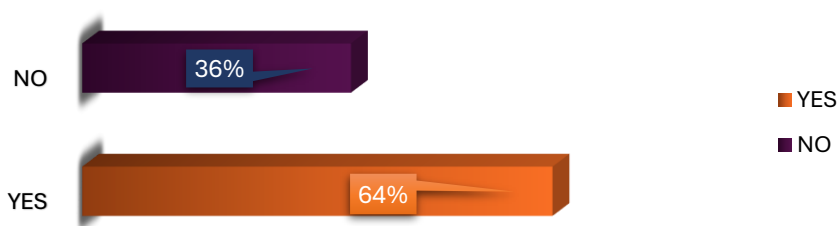
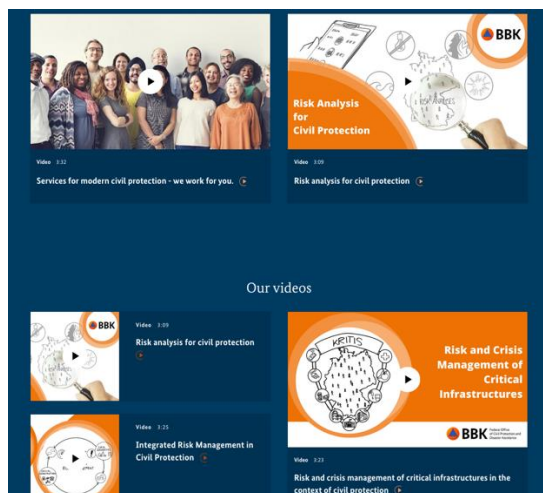


Figure 8: Websites that have a separate section with audio-visual material



Εικόνα 7 Example of a video theme & type of video it has. Source: https://www.bbk.bund.de/EN/Home/home_node.html

The table 5 shows the countries that have a section or any visual material on the website as well as the content that is communicated through this audiovisual material.

Countries	Content
Germany	The topics of the videos are the following: - How civil protection does risk analysis - The purpose of civil protection in Germany. - Questions to the National Contact Point for the Sendai Framework Germany - The Sendai Contact Point (Sendai Contact Point - German Civil Protection Agency) - The Sendai Contact Point (Sendai Contact Point - German Civil Protection Agency). - Integrated risk management in civil protection In addition, the possibility is given to search in two ways by subject and by format. All videos available on the website are in English. In addition to the videos there are also additional topics given in PDF format. Finally, additional videos can be searched on the civil protection YouTube channel, with the majority of the videos being in German.
	In addition to videos, photos are included. It is possible to search by date, by subject (e.g. training, volunteering, emergency), by region (international and local) and by risk, while the videos are in Italian without the

Italy	possibility of subtitles. The content of this specific section concerns: - Actions/conferences (speeches) of the Italian civil protection - From civil protection training exercises. - Missions of polar protection in earthquakes, fires and other natural and catastrophic events. The videos are also available on the Civil Protection channel on Youtube.
Republic of Ireland	There are only photo albums concerning civil protection actions, events and training exercises
Malta	There is just one video on the volunteers There are photos with the following themes: - Fleet (A short presentation) - A short presentation of a small story. Photos from operations and events of the civil protection of Malta
Belgium	Includes photos from polar protection actions, events and training exercises Just one video showing a training exercise
Portugal	Photos from operations, training exercises and general civil protection photos
Greece	Videos with English subtitles relating to a natural disaster or crisis with ways to protect and raise public awareness

Table 5: Content type of module with audio-visual material

Providing information on disasters, emergencies or some other risk did not seem to be the main priority for the respective websites as only 3 websites (Greece, Italy and Germany) had a separate section with comprehensive information on disasters or other emergencies. Whereas, the websites that do not have a natural disaster theme provide information on specific emergencies, for example, protecting forests and rural villages (e.g. Portugal), transporting commercial goods (e.g. Sweden), preparing for winter (e.g. Northern Ireland).

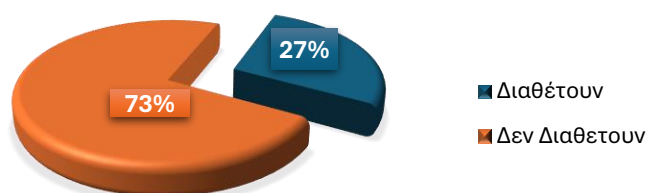


Figure 9: Websites that have thematic information on natural disasters in English

Figure (10) shows the categories of natural disasters for which information is provided in English. Specifically, the natural disasters for which information is provided are: fires, floods and severe weather events where all three websites provide information - instructions for these disasters, while only the website of the Italian MS has information - instructions for tsunamis.

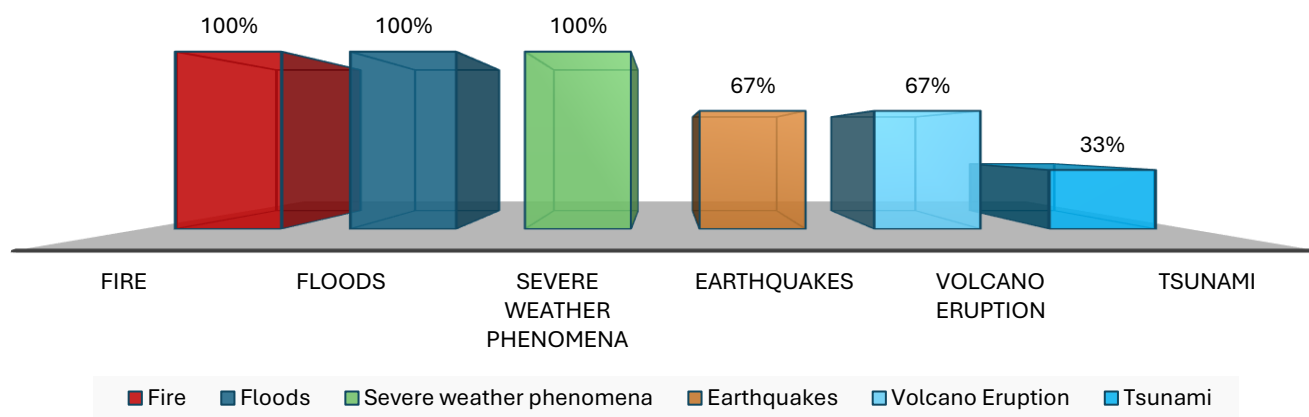


Figure 10: Categories of natural disasters

The Table 6 includes countries that do not have a separate section providing information on disasters, emergencies or other risks. It also lists the information related to a disaster or emergency that was identified within these websites.

Countries	Information about a disaster or emergency or other danger
Belgium	No Information

Danish	How are public warnings made in the event of an emergency	Fire Prevention
Republic of Ireland	Link to website related to winter protection	
Cyprus	It provides instructions in PDF format but in Greek	
Malta	No Information	
Portugal	Programs for protection and awareness in specific topics	• International framework for risk reduction. • Describes emergency planning • Message alert system (SMS) to the public
Sweden	Information on the transport of hazardous materials	
Czech Republic	Topics related to the protection of citizens in an emergency are analyzed, without giving instructions or methods of protection	

Table 6: Information about a disaster or emergency or some other risk from websites that do not have a relevant separate section

Only 4 out of 11 (36%) websites have a section containing information about 112, which generally covers the purpose of the number (112), how to call it and how it works in each country. The rest (64%) have no section, except for Cyprus, which has a section on 112 but not in English. Finally, the Portuguese Civil Protection website has a reference to a section on the home page. The only section available on the Croatian Civil Protection website in English is about 112.

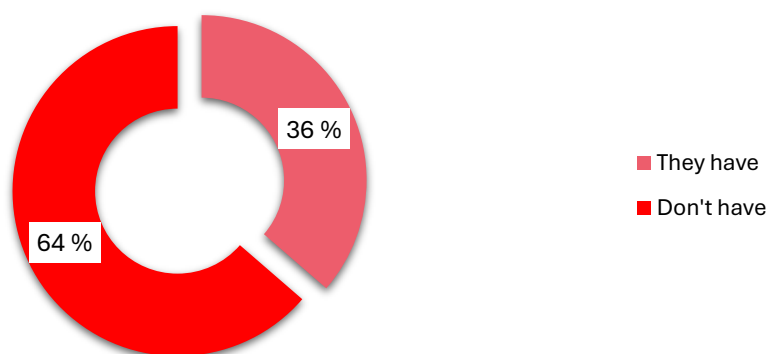


Figure 11: Information about number 112

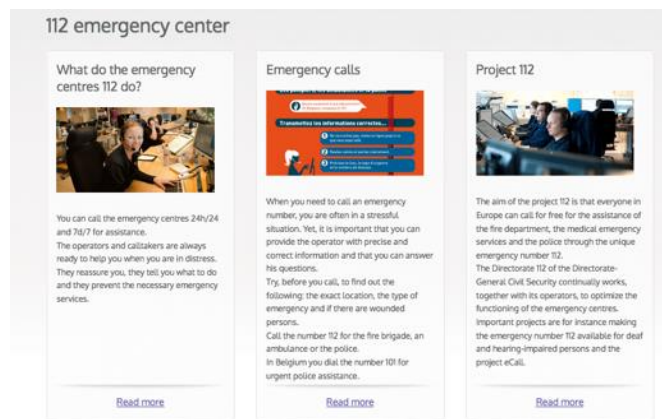


Image 8: Example of an integrated theme for article 112. Source: <https://www.civieleveiligheid.be/en>

Regarding the volunteerism, all of the websites had a short introduction on the role of the volunteer, there were some differences in the presentation of this piece of information. For example, some websites presented the role and importance of volunteering while provided the opportunity to apply for membership of the department.

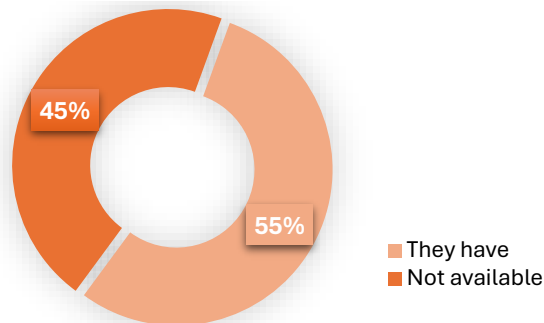


Figure 12: Civil Protection Organizations that have a volunteering theme

Changing content based on the language was shown to be a choice of most organizations (Fig. 16). It can be argued that organizations tailor the content they communicate based on the audience they are targeting.

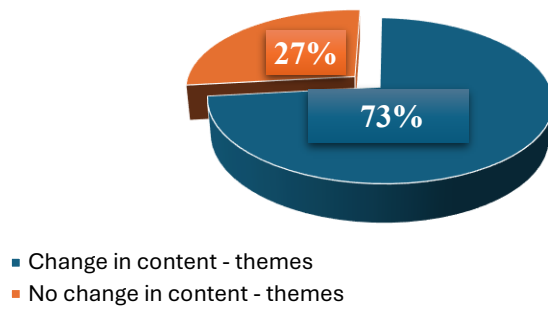


Figure 13: Civil Protection Organizations which changes content/topics after language switch



Image 9: Example of themes when the language of choice is English. Source: <https://www.brs.dk/en/>



Image 10: Themes when the navigation language is the national language of the country. Source: <https://www.brs.dk/en/>

Only three civil protection websites had an accessibility tool (for people with special needs). For example, the website of the Swedish Civil Protection, which allows the automatic reading of the text, the Malta website which features zooming in and out, in the text of website and also the civil protection website of Greece which has a complete tool of this type.



Image 11: Example of accessibility features

5. Conclusion

The aim of this study was to examine the online presence of civil protection organizations across the European member states. Image 15 presents a summary of the results. In conclusion, the online communication of the organizations seemed to be primarily focused on the presentation of the organization, answering questions such as Who, What, How and When about the Civil Protection Organization. Moreover, all the organizations present their contact details and most of them promote their social media accounts via their page in order to foster interaction with citizens. In addition, many organizations communicate their news/announcements so as to keep their citizens

updated. It could be argued that the inclusion of the news section could serve as a tool for media and press relations between the organization and journalists.

Interestingly, the promotion of the European Civil Protection Mechanism was a main communication goal in almost 70% of the websites suggesting the critical role in disaster coordination that the mechanism plays and the importance that is placed to the mechanism by the European member states. The websites analyzed also incorporate audiovisual material to communicate their actions in a vivid and rich manner aiming at fostering the understanding of citizens about the role of the civil protection organization.

On the contrary, less emphasis is placed on the 112 emergency number (36%) and on providing information on natural or technological disasters (27%). Move over, results suggest that vulnerable groups are not considered as target groups of the online communication of the civil protection organizations as few countries had accessibility options. In any case, a more inclusive online communication is needed that will take into account various crisis groups.

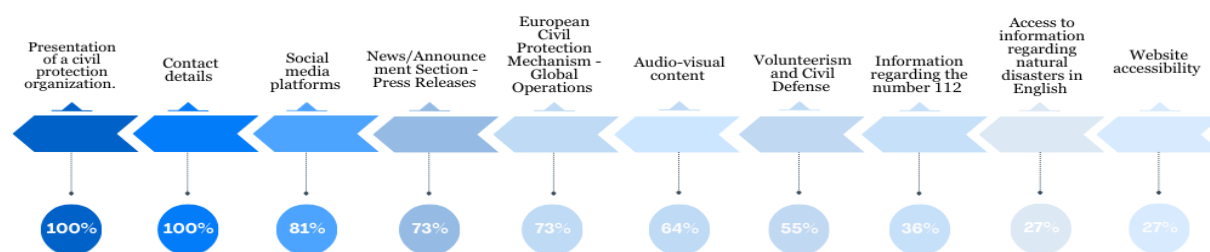


Image 15: Themes and frequency found on each website

Image 16 shows the results of the analysis by theme and country. Based on the findings, The most comprehensive websites according to the criteria of the present research were the websites of Italy and Greece, which had comprehensive sections on both the civil protection organization and topics focusing on information about disasters and crises. While , of the two, the Greek website appeared to be the most comprehensive as the only section it did not have was that of Greece, while the Italian website did not have any sections on the 112 number nor any accessibility tool. Countries with a low number of topics, such as Belgium, the Czech Republic, Malta, Denmark, choose to focus on content related to the Civil Protection Agency of the respective country and presented some minimal topics for information about disasters or an emergency.

	Presentation of a civil protection organization	Contact details	Social media platforms	News/Announcement Section - Press Releases	European Civil Protection Mechanism - Global Operations	Audiovisual material	Volunteerism and Civil Defense	Information regarding the number 112	Access to information regarding natural disasters in English	Website accessibility	FAQ
Italy	●	●	●	●	●	●	●	○	●	○	●
Germany	●	●	●	○	○	●	○	○	●	○	●
Sweden	●	●	●	●	●	○	●	○	○	●	●
Denmark	●	●	○	○	●	○	○	●	○	○	○
Portugal	●	●	●	●	●	●	○	○	○	○	○
Belgium	●	●	●	●	●	●	○	●	○	○	○
Ireland	●	●	●	●	○	●	●	○	○	○	●
Czechia	●	●	○	●	○	○	○	●	○	●	○
Cyprus	●	●	●	○	●	○	●	○	○	○	○
Malta	●	●	●	●	●	●	●	○	○	○	○
Greece	●	●	●	●	●	●	●	●	●	●	○

Image 16: The topics incorporated by each website, based on the criteria of this research

Since civil protection organizations are public bodies that aim to strengthen prevention, preparedness and response in case of disasters, their online presence should be effective and complete. The information and the way in which this information is communicated should be determined according to the needs of the target audience (users). Based on this, some suggestions will be made to improve and strengthen the collective capacity in online communication:

- I. All websites should have information about the **number 112**, for this reason a framework could be defined by the EU. with the information that this section should have.
- II. **Update the information** on the website as regularly as possible and place the date of the update to strengthen their reliability. As several topics on several websites were out of date.
- III. **A new publication policy** to develop more effective ways of communicating with stakeholders could be to enhance audiovisual material (videos, photos, graphics) that are disaster or emergency oriented and useful information about with P.P. Informational campaigns or disaster information could be added to it to enhance the user's knowledge and experience of disasters.
- IV. **Disaster Preparedness and Education**, more attention could be given to the provision of information about a natural disaster or other risk, as it emerged from the evaluation that only two websites have such a comprehensive thematic. For example, information on country-specific risks (eg floods, earthquakes, fires) and guidance on creating emergency plans for individuals, families and businesses could be provided.
- V. Incorporating **accessibility tools** so that information can be available to as many visitors as possible.

- VI. **News / Announcements** that include information - announcements about some ongoing crisis. In addition to reports on the activities of each PP.
- VII. The creation of a **common framework** with the sections that a Civil Protection website should have. in a European Union country when navigating in English. As most of the countries have different content when switching language.

Future research could shed light on the use of social media by civil protection agencies in European Member States. The effectiveness of digital communication during specific types of crises, such as natural disasters, public health crises or accidents caused by accidents or other crises. The role of mobile applications and text alerts used by EU Member States to provide civil protection information and warnings in the online communication. As well as, on public perception of online civil protection communication in EU Member States and how public trust or lack of trust affects effective online communication.

The study is limited by its focus on a small number of EU member states and a specific set of online communication platforms. While the findings provide valuable insights into the comparative effectiveness of civil protection communication, they may not be generalizable across all EU member states or civil protection agencies.

References

- Barrantes, S., Rodríguez, M., & Pérez, R. (2009). Information management and communication in emergencies and disasters: manual for disaster response teams. PAHO HQ Librar.
- Coombs, W. (2010). Crisis Communication and Its Allied Fields. Στο W. Coombs , & C. Holladay, The Handbook of Crisis Communication (pp. 54-65). Blackwell Publishing Ltd.
- Chasiotis, A. (2013). Analysis and risk management techniques for the implementation of information projects.
- Dadoudi , A. (2017). Comparative Analysis of Civil Protection Systems.
- Dufty, N. (2020). Disaster Education, Communication and Engagement. John Wiley & Sons.
- Dynes, R. (2006). Social Capital: Dealing with Community Emergencies . Homeland Security Affairs 2, Article 5.
- D. Haddow, G., & S. Haddow, K. (2008). Disaster Communications in a Changing Media World. Elsevier Inc.
- European Commission. (2013, December 10). New legislation to strengthen European policy on disaster management. MEMO. Brussels.

European Commission. (2024). Civil protection. Ανάκτηση May 2024, from European Civil Protection and Humanitarian Aid Operations.

Houston, J., Hawthorne, J., Perreault, M., & Park, E. (2014). Social media and disasters: A functional framework for social media use in disaster planning, response, and research. *Disasters*, 39(1), pp. 1-22.

Karamanou, A., & Valsamos, P. (2016). Disaster Management: Harnessing Social Media. 3rd Panhellenic Civil Protection Conference "New Technologies and Civil Protection". Alexandroupoli.

Kuipers, S., & Welsh, N. (2017). Taxonomy of the Crisis and Disaster Literature: Themes and Types in 34 Years of Research.

McEntire, D. A. (2014). Disaster Response and Recovery: Strategies and Tactics for Resilience 2nd edition.

Pine, J. (2017). Technology and Emergency Management (2ος). Wiley.

Rapisardi, E., Di Franco, S., & Giardino, M. (2014). Italian Civil Protection 2.0: Towards a Resilient Information Management Framework. *Engineering Geology for Society and Territory - Volume 7*, 75–180

Sena, L., & Woldemichae, K. (2006). Disaster Prevention and Preparedness. Jimma University. Singh, E., & Singh, K. (2022). Information Technology in Disaster Management.

Sutton, J., Shklovski, I., & Palen, L. (2008). Finding community through information and communication technology in disaster response. *Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work, CSCW 2008*, San Diego, CA, USA.

Tierney, K., & Bruneau, M. (2007). Conceptualizing and Measuring Resilience: A Key to Disaster Loss Reduction. *TR News* May-June 2007, 14-17.

Topno, P. (2016). Social Media An effective tool for Disaster Response. *International Council on Social Welfare*, pp. 28–31.

Twigg, J. (2004, March). Disaster risk reduction: Mitigation and preparedness in development and emergency programming. Chapter 4 : Project Planning, pp. 31 -60.

Wendling, C., Radisch, J., & Jacobzone, S. (2013). The Use of Social Media in Risk and Crisis Communication. OECD Working Papers on Public Governance(24).