D6.3 REPORT OF THE CHALLENGES RELATED TO MIS-, DIS-, AND MALINFORMATION

Project acronym: BuildERS

Project title: Building European Communities' Resilience and Social Capital

Call: H2020-SU-SEC-2018-2019-2020/H2020-SU-SEC-2018

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Name	Organization
Pirjo Jukarainen (PJ)	Police University College of Finland
Miia Myllylä (MM)	Police University College of Finland
Camilla Kattelus (CK)	Police University College of Finland
Asta Bäck (AB)	VTT
Margo Klaos (MK) - Internal review	Estonian Rescue Board
Maira Schobert (MS) - Internal review	University of Tübingen

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Executive Summary

Aligned with the Sendai Framework for Disaster Reduction 2015-2030, BuildERS project aims at an all-society engagement in resilience building. To achieve this, we need to identify those, who are at the margins of society and/or whose vulnerabilities in crises have not been addressed enough. Our mission is to focus in particular on the preparedness stage of the crisis management cycle; we aim to enhance the risk awareness and capacities to prepare for crisis of those who are in a vulnerable situation.

This report contributes to reaching the following objectives of BuildERS project:
[2] Create knowledge to empower and activate the 'builders' of social capital: the first-responders, policymakers, administrators, public and private service providers, the media, and the people themselves,
[4] design recommendations for civil and security organisations and authorities on the use of social media and other crowdsourced data to enhance its reliability and usability
[5] genuinely engage stakeholders in the co-creation and evaluation of policies, strategies and tools – including technologies – so that root-level needs are addressed, and social capital built.

We will report here the results of a series of tabletop exercises and workshops on risk and crisis communication. As a background material for these co-creative activities, we have used BuildERS research on how communication and people's social relations and networks (that is their social capital) impacts their vulnerability in crisis. Central topic discussed was the information disorder, which refers to the prevalence and spread of different types of false and harmful information: mis-, dis- and malinformation.

Altogether 84 experts on communication and crisis management took part in the co-creative exercises and workshops. Due to COVID-19 pandemic, all activities were held online via digital facilitation platform (Howspace). Although the online tools for engagement cannot create the same spirit and sense of togetherness as face-to-face interaction, participants' feedback for us was mainly positive. Participants were shown some key research findings of BuildERS project and encouraged to complement these by sharing their everyday experiences and good practises at work. Furthermore, similar to social media, participants were able to discuss and comment others' views, and this way brainstorm together practical solutions and process innovations to tackle information disorder. This possibility to learn together and share both academic and tacit knowledge, was highly appreciated.

As an outcome of the iterative rounds of co-creation on topic risk and crisis communication we identified three different themes, that carry innovation potential. These are: 1) Increasing collective risk awareness and strengthening individuals' risk perception with the help of (social media) influencers, 2) Improving the accessibility of credible and trustworthy information on preparedness and being safe during an acute crisis, 3) increasing the outreach of media and information literacy education in societies.

Our aim is to continue co-creation with the specialists in these areas and innovate tools to support the processes of engaging social media influencers, making crisis information accessible and educating to identify false information. This report will document the intermediate stage of the iteration process of BuildERS, in designing scientific, process and product innovations in relation to risk and crisis communication.

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Table of Contents

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List of Acronyms

AB	Advisory Board
ACC	Augmented and Alternative Communication
AI	Artificial Intelligence
BuildERS	Building European Communities Resilience and Social Capital project
COVID-19	Coronavirus Disease 2019 pandemic
D	Deliverable
DoA	Description of Action
EFM	every-day fringe medicine
NGO	Non-governmental Organisation
PCS	Picture Communication Symbols
RNN	Recurrent Neural Network
T	Task
TRESCA	
VOST	Virtual Operations Support Team
WHO	World Health Organisation
WP	Work Package

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List of Figures

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D6.3 REPORT OF THE CHALLENGES RELATED TO MIS-, DIS-, AND MALINFORMATION

1. Introduction

Interest in the impacts and factors behind false and harmful information is currently at a high level due to COVID-19. However, health related misinformation or “infodemics”, is not a new phenomenon. According to the 2018 Flash Eurobarometer survey, two-thirds of European respondents say they encounter fake news at least once a week, and most European citizens see it as a problem – both in their own country and for democracy in general. There is also a shared understanding that coordinated efforts are required from a range of different institutions and media actors to tackle the spread of false and harmful information. (European Commission 2018b.)

A Social media makes sharing of and access to information speedy and extensive, which is useful during crisis. Warnings and protective guidelines can be shared quickly with a wide audience. Concurrently, it also allows the wide spread of false and harmful information, which may endanger the protective and mitigating measures in crisis. As stated in the article based on BuildERS research, false or misleading claims, malicious disinformation, rumors, or pranks may put individuals at increased risk and/or hamper the normal operation of emergency management institutions (Torpan et al. 2021).

There are underlying values and assumptions on how misinformation operates in crises. False and misleading information can be seen as the inevitable consequence of the sense making process when people are trying to understand incomplete information. The theoretical framework of BuildERS project states that our social networks and level of trust towards crisis management institutions affect our ability to cope in crisis situations. In other words, our social capital affects our resilience. Social media tools have helped to build new forms of social capital: relationships even on a global level. In crisis situations, social media tools enable fast access and sharing of information and dialogic communication between the crisis management agencies and affected populations. Furthermore, all kinds of support networks and spontaneous volunteer action can be rather easily organized via social media platforms.[1] Social media helps both affiliated and informal volunteers to self-organize and take part in crisis management: preparedness, mitigation, response and recovery. Nonetheless, as stated in BuildERS work, the role of spontaneous, informal volunteers is ambiguous as they are not part of official crisis management and not regulated. There are shortcomings in authorities' knowledge of how to how to work with informal volunteers. Informal volunteers can be of help, if they are adequately

[1] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project deliverable

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instructed. Nonetheless, informal volunteer action carries a risk to spread information that is harmful to crisis relief.[2]

Yet, there are also negative aspects related to social media; it can be a source of false and harmful information and create new divisions in society: for example, between those without skills to use or unable to afford new technological devices may be pushed to the margins of society (digital divide).[3] It is thus, important to explore further, what kind of vulnerabilities may be related to the social media communities and exchange of information via social media tools and platforms. As an additional and more detailed framework for the discussions with our Stakeholder Forum, we have used BuildERS report D1.4, which delves into communication related vulnerability. It takes a closer look at the information receiver's situation and the communication methods and processes — how these both affect people's vulnerability in crisis. In particular, we should pay attention to the accessibility of information and ease of understanding. Furthermore, we should promote and support peoples' ability and willingness to act upon information: for example, to prepare for risks and respond to warnings.[4]

One of the key challenges is lack of trust towards social media content. Distrust towards the information source may prevent people from acting; sometimes even the official messages are considered as false. BuildERS report D1.4 states that a warning from a credible source has a greater impact on people than a warning from a source that they do not consider as trustworthy. People tend to seek information elsewhere when they deem the source unreliable. Furthermore, the public prefers local rather than national sources. Local sources and locally relevant information are considered more credible.[5]

However, there are large differences between the countries in terms of trust towards different media channels and information sources. For instance, people from the northern and western parts of Europe have higher level of trust in the traditional media channels (print press, radio, TV) compared to the Eastern and Southern Europeans. On a general level, radio is considered to be the most trustworthy media in Europe. But here as well, major differences are found. When 91% of the Finns consider radio to be very trustworthy source of news, 50% of people living in Hungary and 54% in Malta consider the same. Similar regional differences are in the trust towards TV and online newspapers and news magazines. Trust towards these as information source is highest in the Nordic countries and lowest in Hungary. (European Commission 2018b.)

This report presents a co-creation process and potential practical innovations and related recommendations that have their basis in the communication related vulnerabilities. These are all based on the ideas of our Stakeholder Forum and academic research carried in BuildERS WP1 and WP2. First set of practical innovations and policy recommendations is related to the accessibility of credible information on crisis. Here for instance the use of easy to read and plain language are essential. These would enable to reduce vulnerability related to the presentation of crisis information. Although the accessible web content is required by the EU directive, and there are strong agencies advocating plain language, there is much to do. Our aim in BuildERS is to improve those processes

[2] Orru et al. (2020). *D2.2 Case country analyses and a cross-country comparative analysis of the functioning of disaster resilience systems*, BuildERS-project

[3] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project deliverable

[4] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities,* BuildERS-project

[5] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project

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and products (tools) that assist both crisis managers and the recipients of risk and crisis related information.

The second innovation, collaboration with the social media influencers, aims at using digital trust networks in a novel way. Social media influencers are actors who have established a significant number of relationships in the social media with a specific quality to and influence on organizational stakeholders through content production, content distribution, interaction, and personal appearance on the social network. (Enke 2019). There are many types of influencers, and all of them have become strategic partners of businesses. We will report here our preliminary innovation policy recommendations, which will be further developed with the specialists in influencer marketing and the influencers themselves.

Third innovations are related to the media and information literacy training for those, whose special needs and motivation factors in terms of training have not been fully addressed. In 2016, the European Commission mapped media and information literacy practices and projects in 28 EU member states. According to the results, since January 2010 there had been very few projects targeted at the elderly populations; most projects were focused on training youth or professionals (e.g. teachers, care-workers, youth workers and academics) (The European Audiovisual Observatory 2016). As the elderly persons are different in terms of skills, knowledge and functional capacity, it is important to design media and information literacy training that is considering their various needs and motivation factors. We started to discuss about these issues in our co-creative workshops and present the findings in this report. However, we are only at the initial phase of and need to engage more education specialists to co-create process innovations and recommendations for an innovation policy.

All of these are potential tools to manage information overflow and conflicting messages in crises — the phenomena, which often lead to information disorder.[6,7] They are all at an early stage, and need to be further co-designed and "field tested" by those who would implement our recommendations in practice. As WP6 supports an iterative process within the BuildERS project, they need to be elaborated with the BuildERS project partners, both researchers and practitioners/first responders alike. We will then take the innovations to the Stakeholder Forum. Preliminary plan is to engage the following Stakeholders in further co-creation:

- Accessibility: plain language advocacy groups such as Plain Language Association International
- Influencer engagement: organizations that handle or are involved in ethical influencer marketing and instances responsible for regulation of media.
- Media and information literacy campaigns and training: individuals with different backgrounds and motivation factors should be considered

Combatting false and harmful information has become a global initiative. Over a 100 independent fact-checking groups and organisations have emerged around the world during the last decade and international organisations such as the European Union, Europol, the International Organisation for

[6] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project
[7] Bäck et al. (2020). *D2.3 Social media campaign analysis and governments' responses to disinformation*, BuildERS-project

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Migration, the World Health Organisation and the United Nations have launched awareness campaigns to combat harmful information. (Torpan et al. 2021.)

Scientific community has also joined forces to fight against this “vicious problem”. EU has funded several projects that focus on misinformation and disinformation. A study by the European Parliament compiled a comprehensive list of such EU initiatives in 2019 (Alaphilippe et al. 2019). Moreover, many projects have dealt with the information disorder: "infodemic", which has spread aside the COVID-19 pandemic. One major funding instrument is the European Union’s Horizon 2020 Research and Innovation Programme (European Commission 2021). Examples of interesting and promising Horizon 2020 projects are:

- CoInform: fosters critical thinking and digital literacy with multi-stakeholder interaction
- Quest: focuses on quality in science communication; it has also explored the effect of the pandemic
- TRESCA: views the problem from the point of view of trust-enhancing communication regarding science (TRESCA 2021).

The European Council (2019) underlines in its Strategic Agenda for the EU for the years 2019-2024, that it is committed to protecting societies and citizens from malicious cyber activities and deliberately false information (i.e. disinformation). Furthermore, in December 2020, the Council of the European Union noted that the current COVID-19 pandemic makes the EU and its Member States more vulnerable to intensified and more sophisticated spread of disinformation and manipulative interference. The Council called for a multidisciplinary and multi-stakeholder approach to tackle the increased spread of disinformation. (Council of the European Union 2020.)

In this task we will build on the European Commission Action Plan against disinformation and the work of the newly established European Digital Media Observatory EDMO with focus on media and information literacy and fact-checking. European Union has recognized that false information is a significant challenge for Europe and that inclusive solutions are necessary. Impactful long-term solutions require awareness-raising, media and information literacy, stakeholder involvement and cooperation between public authorities, online platforms, advertisers, trusted flaggers, journalists and media groups. (European Commission 2018a) In the BuildERS project we will take part in finding these sustainable solutions. Our contribution and innovation outcomes contribute to the discussion by offering practical solutions that emphasize increased social capital. We have also considered the European Accessibility Act (Directive (EU) 2016/2102) as it refers to accessibility of web content in the public sector.

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1.1 The report content and structure

The work reported here contributes to the following BuildERS project's objectives:

- providing recommendations for civil and security organisations and authorities on the use of social media and other crowdsourced data
- genuinely engaging stakeholders in the cocreation and evaluation of policies, strategies and tools – including technologies – so that root-level needs are addressed, and social capital built.

We will document the activities carried out in WP 6 'Co-design and co-development with Stakeholders'. The role of the WP6 is to process earlier project results into deeper insights and innovations. As stated in the BuildERS project plan "the proposed solutions and recommendations are assessed through a co-creative process so that stakeholders' views are reflected to"[8]. The work presented here was carried out in the BuildERS project Task 6.2 Table-top exercises and workshops on the challenges of mis-, dis-, and malinformation. We organised several online engagement activities with a digital facilitation platform called Howspace for the communication and crisis management experts, educators and researchers from different European countries. We will present the activities and the participants in more detail in chapter 4.

We collected valuable ideas for practical solutions and strategic level policy recommendations in the activities presented in this report. The exercises and workshops added to our knowledge of the vulnerabilities in relation to communication and thus complemented the earlier research carried in BuildERS project WP1 and WP2. We collected everyday experiences of challenging situations and assessments of internal capacities to manage these situations. With the help of WP6 co-creative activities, we were able to:

- collect experiences of challenging communication situations and learning of efforts to manage these situations
- collect experiences of tackling false and harmful information
- identify better, who are most difficult to reach with the current communication means and channels and understand better the reasons behind (this will complement BuildERS project research results presented in report D1.4 Communication Behaviour in Europe and Vulnerabilities)
- identify better, who are most at risk of being harmed by the information disorder and understand better the reasons behind (this will complement BuildERS project research results presented in report D2.3 Social Media Campaign Analysis and Government's Responses to Disinformation)

[8] BuildERS project Grant Agreement, part B, p 17.

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Within WP6 we have also validated some interesting, preliminary recommendations drafted in the research reports of WP1 and WP2. These recommendations are related to:

- avoiding the use of short messaging (e.g. SMS and tweets) in alerting and sharing information in crisis[9],
- collaboration of official institutions with a variety of stakeholders (for example influencers, spontaneous social networks, virtual/digital volunteers)[10]
- investing in media and information literacy training and information awareness campaigns[11],
- appointment of specialised communication teams and/or centralised structures to tackle false and harmful information[12].

Furthermore, we have discussed more broadly the future opportunities, risks and challenges related to new technologies, including the social media tools and internet platforms.[13] We have been able to

collect good practises in reaching those most at risk (i.e. the most vulnerable in terms of communication), brainstorm more accessible means for crisis communication, and innovate more participatory and collaborative means for crisis communication and thus make the crisis management practises more inclusive.

The report consists of the following parts. In Chapter 2 we will present the theoretical background and the results and updates on earlier work carried out in Builders. In Chapter 3 we explain in more detail the BuildERS co-creation approach on co-innovation. Following Chapter 4 will bring an overview of co-creation workshops to tackle false and harmful information in crises. Chapters 5-10 will present the results of these workshops. Final Chapter 10 comprises preliminary ideas for innovations, which will be developed further in the project together with experts joining our Stakeholder Forum.

[9] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities,* BuildERS-project
[10] Orru et al. (2020). *D2.2 Case country analyses and a cross-country comparative analysis of the functioning of disaster resilience systems*, BuildERS-project
[11] Bäck et al. (2020). *D2.3 Social media campaign analysis and governments' responses to disinformation*, BuildERS-project
[12] Bäck et al. (2020). *D2.3 Social media campaign analysis and governments' responses to disinformation*, BuildERS-project
[13] Latvakoski et al. (2020). *D2.4 Catalogue of tools, technologies and media opportunities for disaster management*, BuildERS-project

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1.2 Definitions

Our work builds on earlier work of the projects, and we share the same definitions as in the earlier work. The Report 2.3 "Social media campaign analysis and governments' responses to disinformation" defined the key concepts in the following way:

(Crisis and Risk) communication in the context of crisis management include raising awareness about risks and urging for protective behaviour among people in preparation to hazardous events (i.e., risk communication), and spreading warnings and triggering specific responses in the behaviour of people at-risk during hazardous events (i.e., crisis communication).[14]

Crisis management is the shorthand phrase for management practices concerning non-routine phenomena and developments. Crisis (emergency, disaster or resilience) management systems in a broad sense are the national institutions, structures and policies assigned to guard against threats to the security of people and the functioning of critical infrastructures.[15]

Crisis management cycle is a multiple-phase chronological process, during which an organisation deals with a crisis or a disaster. There have been developed several models, but the most widely accepted foresees four phases: prevention/mitigation, preparedness, response and recovery (BuildERS D1.2). During the recovery phase lessons learnt should be analysed and improvement made to all phases of the cycle.[16]

Social capital comprises of networks, norms, values and trust that entities (individuals, groups, society) have available and which may offer resources for mutual advantage and support and for facilitating coordination and cooperation in case of crisis and disasters. There are three types of social capital: bonding, bridging and linking. Bonding social capital refers to relations between individuals who are similar to each other and emotionally close, such as friends or family. Bridging social capital connects and brings together individuals across different communities. Linking social capital connects individuals with those holding positions of authority and power and distributing (scarce) resources. Bonding and bridging social capital refer to horizontal ties and linking social capital to vertical ties.[17]

Social media employs "mobile and web-based technologies to create highly interactive platforms via which individuals and communities share, co-create, discuss, and modify user-generated content". In addition to user-generated content, social media services are also used to publish and share content produced by media and other commercial companies as well as authorities, also in connection to emergencies. Institutions tasked with resilience/crisis management may use social media for at least four purposes:

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[14] *Hansson et al. (2019). D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project

[15] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project

[16] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project

[17] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project.

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- to distribute information to the public about risks and crisis events,
- to provide guidelines to those (potentially) affected on how to avoid particular threats or how to behave in a crisis situation,
- to make themselves available to the public for questions and feedback concerning risks and crisis events, and
- to monitor the information space around vulnerable groups and emergency events to find information that could help in response efforts as well as misinformation that requires correction

Popular services include Facebook, Instagram, Twitter, YouTube, and various messaging services like WhatsApp, Telegram and Messenger; their order of popularity varies between countries and user groups, for example based on age. The BuildERS deliverable D1.4 provides more information about the use of social media in Europe.[18]

Preparedness is defined in the project as the set of actions aimed at building capacities to manage crises and disasters in terms of anticipation, response and recovery. Preparedness refers to taking actions to reduce damage and survive through the disruption of normal daily life. Disaster preparedness involves a series of processes, both physical and mental that facilitate reducing vulnerability and increasing the potential for successful responses to crisis. It is enacted on multiple levels ranging from individual households to the federal government. Emergency managers are to find effective and efficient ways to reach out to communities to foster cooperation and preparedness.[19]

Risk awareness refers to collective (community and group level) acknowledgement about risk and potential actions to prevent risks and mitigating actions. [20]

Risk perception is the individual's subjective judgement about the severity and probability of risk; this perception may vary from person to person.[21]

(Social) vulnerability, according to the BuildERS is dynamic characteristic of entities (individuals, groups, society) of being susceptible to harm or loss, which manifests as situational inability (or weakness) to access adequate resources and means of protection to anticipate, cope with, recover and learn from the impact of natural or man-made hazards.[22]

[18] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project.
[19] Morsut C. et al. (2019). *D1.1: First version of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project. (See also: Paton 2003).
[20] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project
[21] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project
[22] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project

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Misinformation is confusing, false or misleading information without the intent to mislead whereas disinformation is taken to refer to deliberately misleading information. Various forms of false information may interfere with official messages by crisis managers, so that unfounded or misleading narratives start to shape the public perception of risks. Conceptually, it is important to acknowledge that there are many guises of false information, which range from satire and misleading content (which may be shared without intending harm) to manipulated or fabricated content (which may be shared with destructive intent).

Disinformation denotes false information that is knowingly shared to cause harm.[23] World Health Organisation's (WHO) description in the COVID-19 pandemic is similar to the one used in BuildERS WP6. WHO explains the difference as follows: misinformation was not created with the intention of hurting others, but it can still be harmful or even dangerous; disinformation is always dangerous and it serves someone else's agenda. (WHO 2021.)

Malinformation is not (totally) false, but still harmful and making individuals' situations more vulnerable in crisis (Torpan et al. 2021). According to Wardle and Derakhsan (2017) malinformation is truthful information used to harm, either by publishing private and/or sensitive information like home address or religion and using people's affiliations against them. Thus, we can distinguish malinformation as a separate phenomenon, which may overlap with disinformation as in Figure 1. Both disinformation and malinformation aim at creating new vulnerabilities in society. Therefore, they need to be tackled collectively.

The research community has recently started calling the complex media landscape as **the information disorder** as per the definition of Wardle and Derakhshan (2017). When we searched the most common research databases, the term "information disorder" yields 453 results out of which 358 have been published since 2017.[24] Wardle and Derakhsan (2017) stress the need to separately examine the different components of information disorder such as its agent, messages and interpreters as well as the need to consider the different phases it consists of: its creation, production and distribution. (See also Hansson et al. 2021)

[23] Bäck et al. (2020). *D2.3 Social media campaign analysis and governments' responses to disinformation*, BuildERS-project

[24] The databased searched were: ProQuest Central, Social Science Premium Collection, Directory of Open Access Journals, Gale Academic OneFile, Publicly Available Content Database, Academic Search Ultimate, Social Science Database, Taylor & Francis Online, Taylor & Francis: Master, Ebsco: Communication and Mass Media Full Text Plus: 2015 Communication & Mass Media Complete

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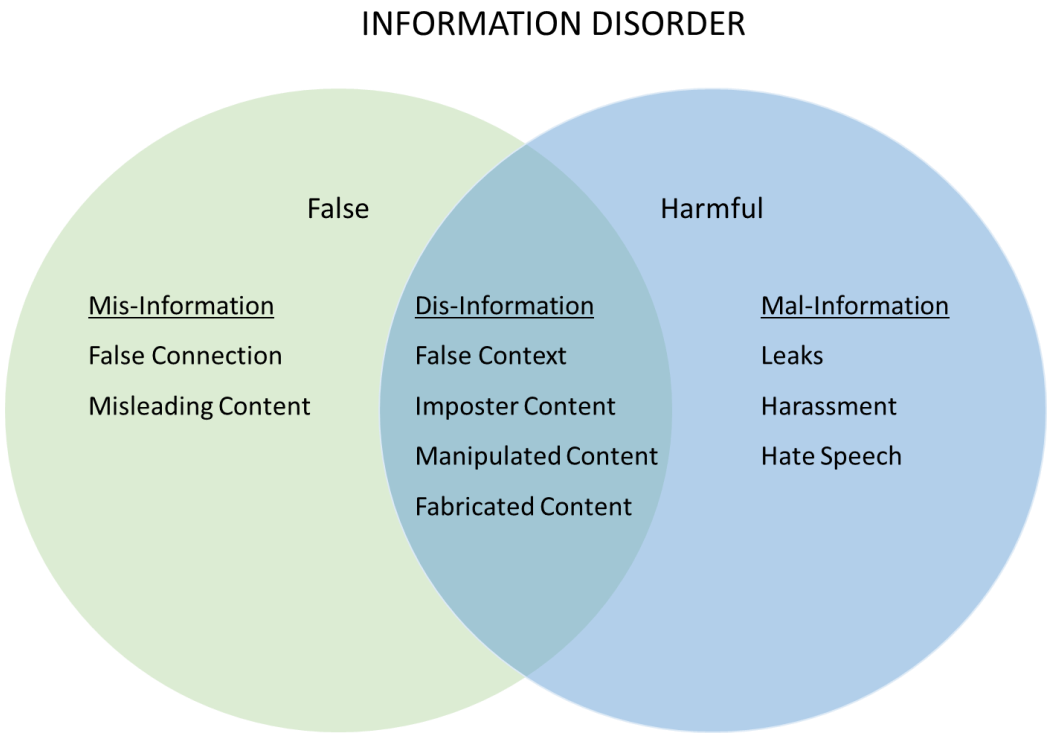

Figure 1. Definition of information disorder by Wardle and Derakhshan (2017)

Similarly, Ruths (2019) argues that there is a larger process that needs to be studied, beyond just false or misleading information. One of the less studied aspect is **visual mis-/disinformation**. One example of visual mis-/disinformation are **(internet) memes.** These are commonly images or short video clips complemented with a humorous or ironic captioned text or catchphrase. Although their primary intention is to entertain and amuse, they may also be politically motivated. Memes are widely shared in the internet and there are several variations of the most popular ones (Rastić et al. 2014). Smith (2018) argues that memes that include the text “fake news” contain political messages and propaganda, which is based on certain democracy-questioning ideologies.

Brennen et al. (2021) analyzed visual false information (verified by fact-checkers) related to COVID-19 pandemic. They state that visual misinformation was mainly achieved by employing simple tools and did not use sophisticate means such as artificial intelligence techniques. Visual misinformation was most commonly related to authoritative agency: 40 percent of visual misinformation was related to actions or agency of public authorities such as ministries or the WHO. Visual misinformation was also related to virulence (the virus is more or less virulent than it really is), medical efficacy (possible cures and treatments without scientific proof) and intolerance: 15 percent of the visual misinformation content was labelled as racist, xenophobic or had extreme partisan elements. To a lesser but significant degree, misinformation was also related to prophecy (the pandemic was predicted) and satire: satirical visual content such as memes can be intended as funny but may still be misinterpreted. Visual misinformation can serve several purposes the most common of which are selective emphasis for a claim, to provoke an emotional response and to serve as evidence. (Brennen et al. 2021.)

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2. Theoretical background – results and updates on earlier work carried out in Builders

2.1 Communication related vulnerabilities

Vulnerability in natural disasters and human-induced crisis is dynamic, intersectional and situational. People are not inherently and permanently vulnerable; instead, their vulnerability changes in time and geographical location. Thus, we cannot for instance say that the elderly, children, physically or mentally impaired or the socially marginalised are always the very vulnerable groups in every crisis and in every situation. Crisis management institutions commonly group those, who are considered as vulnerable, in order to target the relief and support actions. These groupings, however, should just offer a starting point for further assessment, exploration and research. We should ask: when, in what kind of situations, and why are people in a vulnerable position? (See also Orru et al. 2021)

BuildERS project emphasizes an intersectional approach to vulnerability. This means that we understand vulnerability as consisting of a variety of dimensions, which may be overlapping and present simultaneously. It is thus possible, that several factors together make an individual extremely vulnerable and unable to cope with a crisis. In BuildERS D1.4 'Communication behaviour in Europe and vulnerabilities' and the related journal article, Hansson et al. (2019) considered the role of communication and how it decreases and increases vulnerability in crises. Communicational vulnerabilities can be related to the message itself and to the source of information: channels and methods. Moreover, people become vulnerable if they are not able to access, understand or act upon information.[25] Overall, problems related to false and harmful information are related to problems of social trust, social exclusion and discrimination.[26]

In practise, people's vulnerability in crises may increase if they:

- do not receive information (e.g. warnings or guidance) regarding a crisis
- receive information that they cannot understand (e.g. lack of language skills, complex messages etc.)
- receive too much or conflicting information and hence are not able to decide if and what is important, or what is trustworthy
- regard correct information about a crisis as false (e.g., due to lack of trust),
- believe false information about crises.[27]

[25] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project
[26] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project, page 28
[27] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project

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Vulnerability to false or harmful information is related to different factors. One factor is the age of the information receiver. According to the 2018 Flash Eurobarometer survey, ability to identify false or misleading information is lower amongst the older populations. 22 percent of 15–29-year-old respondents were not very, or not at all confident in identifying news that is either false or represents reality in a wrongful way. 32 percent of the 60-74 years old respondents thought the same. Younger generations are more likely to trust online sources, like online newspapers and news magazines (60% among those aged 15-24-year-old falling to 34% among those aged 55 or over) and video hosting websites and podcasts (46% among those aged 15-24-year-old, falling to 16% of those aged 55 or over). However, older respondents were also much more often unable to answer, whether they can trust online sources than the younger respondents. This may naturally reflect their lesser use of digital services and platforms. Another factor is education; respondents who left education aged 20 or above are significantly more confident that they are able to identify fake news compared with those who left education at the age of 15. Furthermore, regular use of online platforms increases people's confidence in their abilities. (European Commission 2018b.) BuildERS report D1.4 concludes that people who are less experienced in the use of social media have more difficulties in assessing and processing the information and are thus more vulnerable to false and harmful information. Therefore, educational and research programs should be established to support development of skills and tools to evaluate the credibility of (social media) information.[28]

Factors that are related to the information itself may also be harmful. Abundance of information, especially during the acute stage or a crisis can create confusion.[29] Information flooding or information overflow (IO) is a recognised issue exacerbated by social media. The internet provides a huge amount of varied information and it can be difficult to evaluate and select relevant information which can lead to various adverse effects like ineffective information processing, confusion and psychosocial stress. (Schmitt, Debbelt & Schneider 2018). Reporting itself can also create more harm than good when the reporting is based on unverified information or it misrepresents the situation. During crisis, contradicting information may also spread leading to a situation where the judgement ad responsibility to take correct action is laid upon the receiver[30]

Furthermore, vulnerability is also self-perceived and different factors impact this perception. Therefore, we need to collect self-assessments of vulnerabilities. We should (also) let people themselves estimate, in what situations they feel vulnerable and allow them to express their needs. Coninck, Haenens and Matthijs (2020) studied perceived vulnerability to COVID-19 disease and attitudes towards public health measures in Flanders, Belgium; they found that older age, low educational attainment and female gender were associated with greater perceived vulnerability to COVID-19 disease. Perception of vulnerability also had an impact on the attitudes towards crisis management policies and practices. Those who perceived themselves as vulnerable to disease consider that the policies and protective measures: (self-)quarantine, social distancing, and closing all non-essential establishments are not far-reaching enough to combat the pandemic and they supported stricter public health measures. Interestingly, those who were watching news from the television had a greater belief that public health measures are necessary to combat the pandemic, and approval of the government's handling of the pandemic. Coninck, Haenens and Matthijs presume that this is due to the public's trust in these media. (Coninck, Haenens and Matthijs 2020.)

[28] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project
[29] Hansson et al. (2019). D1.4 Communication Behaviour in Europe and Vulnerabilities, BuildERS-project, p.23
[30] Hansson et al. (2019). D1.4 Communication Behaviour in Europe and Vulnerabilities, BuildERS-project, p.16, 25

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According to a recent survey carried in the 27 European Union Member States, the main priority for the EU in its response to the novel Coronavirus should be to ensure that sufficient medical supplies are available for all EU Member States. The lowest priority was given to work with social media platforms to help eliminate inaccurate information or 'fake news' (13%). Respondents in Latvia (29%), Estonia (26%), Romania and Hungary (both 20%) were the most likely to see this as a priority. Furthermore, younger respondents (20% of 16-24 year olds) were also more worried of the inaccurate information than the older respondents (9% of those aged 45-64). Research findings were similar on this issue as in the first wave of the survey. Considering the vast, multifaceted impact of the information disorder, or in this case, the "infodemic", this could be seen as a worrying result. Information disorder is not yet seen as having a large impact on safety and security. (European Parliament 2020.)

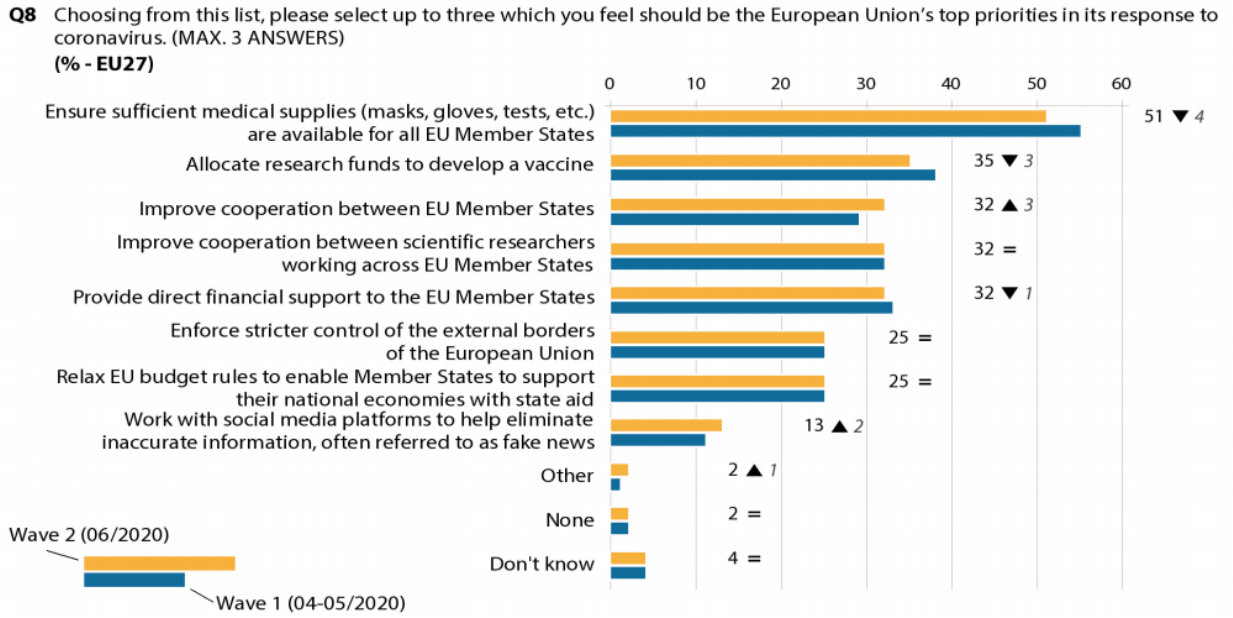

Figure 2. EU citizens' views on the EU's top priorities in its response to COVID-19 (European Parliament 2020)

Due to these latter aspects of perceived vulnerability, we have collected stakeholders' perspectives on different kinds of crisis situations and their own assessments of their capacities and skills. Within WP6, we have engaged our Stakeholder Forum to share their experiences and lessons learned. In this report, we will highlight the results of tabletop exercises and workshops and present some ideas for innovation potential.

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2.2 Social media enables quick spread of any kind of information

The aim of the BuildERS project as a whole is to enhance European communities' resilience in crisis. Our preliminary hypothesis is that by strengthening social capital (i.e. people's social networks and relationships and mutual trust) and increasing people's risk awareness, we will build societies that are more resilient. According to the theoretical framework of BuildERS project, resilience building is not this simple. Social networks and relations are not always positive; there is a 'dark side' of social capital. Especially the so-called bonding relations between individuals, who are similar to each other, and emotionally close such as friends or family may be problematic: patronising, inward-looking and prejudiced.[31]

Social media allows to build social relations and communities even on a global scale. Social media makes sharing of and access to information speedy and extensive, which is useful during crisis: warnings and protective guidelines can be shared quickly with a wide audience. Concurrently, it also allows the wide spread of false and harmful information, which may endanger the protective and mitigating measures in crisis. False and misleading information can be seen as the inevitable consequence of the sense-making process when people are trying to understand incomplete information. (Huang et al. 2015.) However, social media may also help to engage the public in the debunking of false information during emergencies and may have a positive effect on collaborative problem-solving (Torpan et al. 2021).

Some issues seem to help the spread of misinformation more than others do. For instance, emotionally loaded topics seem to proliferate wider. Wardle and Derakhsan (2017) state that problematic content that leverages people's emotions is usually the most effective as it drives people to share and connect with their online communities. Vosoughi, Roy and Aral (2018) investigated the differential diffusion of true and false news stories distributed on Twitter between 2006 and 2017. They found that false news stories spread faster and farther than verified true stories. They also concluded that false news stories had more novelty to them that true stories and they inspired replies exemplifying emotions such as fear, disgust, and surprise whereas the reaction to true stories inspired anticipation, sadness, joy and trust. Furthermore, false information about politics spread further, faster and more broadly than information about natural disaster and terrorism (yet, misinformation about terrorism spread more readily than misinformation about natural disasters)[32]. The writers conclude that the emotional reactions to the tweets may enlighten what inspires people to share false news beyond novelty. Interestingly, removing all tweets shared by bots did not change the results of the study indicating that it is indeed people who share news rather than robots (Vosouhi et al. 2018). Likewise, D1.4 refers to the emotional aspect of crises stating that social media can act as a channel for emotional relief in such situations (p.21).

[31] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project

[32] See also Hansson S. et al. (2019). *D1.4 Communication behaviour in Europe and vulnerabilities understanding communication-related vulnerability and resilience in crises*, BuildERS project

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There are several psychological mechanisms that make misinformation effective. Studies have shown that even if proven false, once misinformation has been suggested, it will be used to make conclusions. People are usually unaware of the unreliability of their memory and perceptions. Anderson (2020) further points out the role of social media in relation to misinformation mentioning its wide availability (low transaction costs), social media's addictive, sensationalist nature, and the fact that it lacks traditional social constraints, which usually inhibit overzealous behaviors. Furthermore, online, information spreads faster than it can be verified making the job of fact-checkers difficult. Their efforts are further hampered by the above-mentioned claim that virality is based on emotional engagement rather than truthfulness. Correct information will likely not match the virality of the original information.

In addition to user incentives, social media platforms themselves have business models that may benefit from the proliferation of misinformation. Media platforms have their advertising driven business objectives. Furthermore, there are economic reasons to keep customers engaged with the help of algorithms that promote personalized messages that can nonetheless help promote the proliferation of misinformation. In recent times, many of the well-known social media conglomerates have taken action against misinformation. Twitter, for example, has recently added measures to thwart the spread of false or harmful information. The company has made sharing of misinformation harder by adding warnings or removing false or misleading information. This pertains to Covid-19 specifically. Furthermore, the World Health Organization has collaborated with many social media platforms (incl. Twitter) in order to fight misinformation related to the pandemic (WHO).

Different platforms react differently to information produced by varyingly trustworthy news outlets. The main drivers of information may then be platform specific and depend on the group dynamics engaged in the conversation within those platforms (Cinelli et al. 2020). One study shows that the amount of misinformation on Facebook has lessened, perhaps due to changes made at the platform, while the proliferation of misinformation on Twitter has increased (Allcott, Gentzkow & Azhuan 2019).

There are multiple studies that explore the significance of social media at the pre-crisis stage from the point of view of crisis management. Research findings point to the importance of increasing understanding of social media and creating a social media strategy with strategic presence before a crisis hits (Eriksson 2018). Yet, there is much variation at the European level on how social media is used in different crisis management organizations and different national context as explored by D2.3.[33] According to D1.4. emergency response professionals may "fear" misinformation and thus be hesitant to use social media (Hilz, Kushma & Plotnick 2014; Hughes & Palen 2012). Yet, "rumour management" or government agencies scanning false information and offering clarifications and corrections might be beneficial at the preparedness phase as well as during a disaster (Wuckick, 2019). Indeed, D2.3 recommends the use of direct "fact-checking" helplines during crises in order to stop the spread of possible misinformation.

[33] Bäck A. et al. (2019). *D2.3 Social media campaign analysis and governments' responses to disinformation*, BuildERS project

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2.3 Trust as an aspect of social capital

A person's trust in a particular media channel or a particular authority plays an important role in defining whether a person takes a message from a source seriously and whether the message leads to action. If a person distrusts an authority, it easily leads to the person starting to look for and follow misleading information sources. Trust in media channels and authorities varies considerably even within EU Member states. In many European countries, radio and TV are the most trusted media channels. Trust in internet and social networks is the highest in Hungary, Bulgaria and Poland, and lowest in Sweden, France and the Netherlands. It is however important to note that people who use social media services in general and during crises, appreciate social media channels' quickness and the opportunity to get (nearly) real time information of events and people's reactions.[34]

During the COVID-19 pandemic, distrust in science has become more visible. For example, recent research shows that people may rely on every-day fringe medicine (EFM) due to multiple reasons; some feel that the research on medicine is determined by economic and commercial interests and thus not fully to be trusted, while others' are disappointed with medical professionals' inability to take into consideration their emotional and communicative needs which may be tied to a broader critique towards the perception of medical experts as exclusive and impersonal (Vuolanto et al. 2020). According to the survey in 27 European Union Member States, majority of European citizens trusted scientists to inform them about the COVID-19 pandemic. Asked to choose up to three options from a list of 12 possible trusted sources of information, more than a third (37%) chose scientists, followed by national health authorities (32%) and the World Health Organisation (29%). The least trusted sources were their fellow citizen's for example on online social networks (social media); interestingly, the trust was equally low among all gender, age and education groups. However, there were large differences between countries. For instance, in Czechia and Slovakia family members and friends were one of the most frequently mentioned, trusted sources of information. The national government was included in the "top three" in eight countries (Germany, Denmark, Ireland, Latvia, Luxembourg, Malta, the Netherlands and Austria) and the respondent's doctor in seven countries (Czechia, Germany, Spain, Belgium, Cyprus, Austria and France). Respondents in Lithuania (22%), Finland (19%) and Portugal (17%) were most likely to trust journalists from traditional media and the lowest trust was found in Greece and Croatia (both 5%). The proportion choosing non-governmental organisations (NGOs) as a trusted source was highest in Poland (19%) and lowest in Greece, Cyprus and Malta (all 4%). (European Parliament 2020.)

[34] Hansson S. et al. (2019). *D1.4 Communication behaviour in Europe and vulnerabilities understanding communication-related vulnerability and resilience in crises*, BuildERS project

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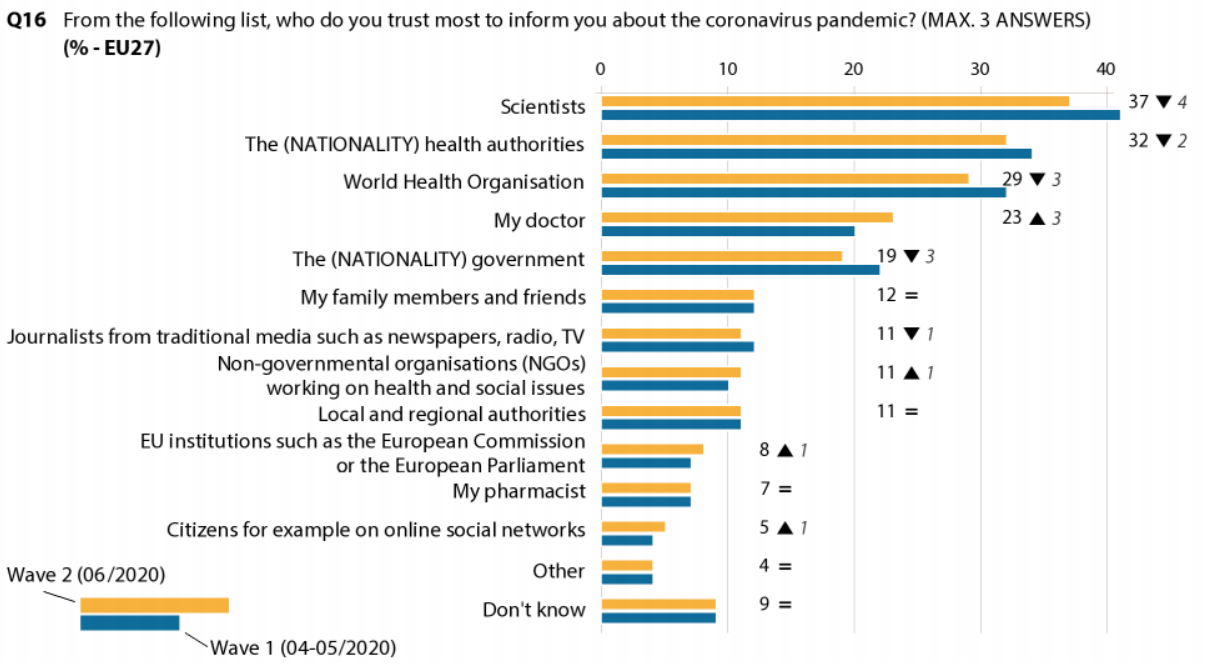

Figure 3. The most trusted sources of COVID-19 related information (European Parliament 2020)

Research carried in Sweden shows interestingly, how crisis may even strengthen the overall trust between (unknown) citizens and trust towards government institutions responsible for crisis management. This may be explained by a "rally effect" -theory: sense of unity usually increases during human-induced crises such as pandemics, terrorist attacks and war. Conversely, in natural disasters, people generally turn against their governments to find fault in them. Esaiasson et al. (2020) compared the measurements of trust before and during the early days of the COVID-19 pandemic and noticed that trust increased also among the supporters of opposition parties. This research shows interestingly, that public support can grow even in the midst of a heated public debate about crisis management, and even when substantial groups of citizens expressed distrust prior to the crisis. (Esaiasson et al. 2020.) Indeed, trust towards those responsible for crisis management is a prerequisite to prevent false and harmful information from spreading. According to a research of the measures to prevent and control Ebola virus disease low trust towards crisis management institutions and belief in misinformation were associated with a decreased likelihood of adopting preventive behaviours, such as seeking formal health care or acceptance of vaccines (Vinck et al. 2019).

Systematic review of current research on crisis communication and social media has found several lessons learned, that are not actually so new. The "best practises" in the context of traditional media environment can be applied in the digital media environment: plan and prepare, create partnerships with the public, listen to people's concerns, and understand the audience's need for credible sources. Similar to other fields of crisis management, also risk and crisis communication need preparedness planning. Relationships and trust networks with the general public and strategic stakeholders need to be built before a crisis occurs. In other words, "make friends before you need them". (Eriksson 2018.) Journalists and traditional media are some of the key partners to crisis management agencies. The already established personal and institutional contacts, the linking social capital, is an asset. There is empirical evidence that emergency response officials have sent information to specific reporters' social media accounts, because of the previously existing relationships with them. (Lovari and Boven

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2019.) Furthermore, networking with journalists opens up a plethora of information sharing channels. Traditional media channels like TV and radio broadcasters and print press have established a strong presence on the internet and in the social media. Especially, large media companies provide content via various channels, including the over-the-top (OTT) services, like the subscription-based video-on-demand (SVoD) services. Thus, working partnerships with various media companies will help first responders to deliver correct information very efficiently.

It is also important to establish a strong presence on *multiple* different social media platforms before the next crisis (Eriksson & Olsson, 2016). It has also been found to be useful to prepare educational messages and materials in advance, in order to avoid the so-called "information vacuums" during crises and emergencies. These informative materials could help prevent harmful spread of social media rumours (Crook et al., 2016). Social media monitoring (follow-up and analysis of the so called "big data") is also important, and not only before the crisis occurs, but during the acute crisis and in the recovery stage. After the acute stage, crisis management agencies should carry a follow-up assessment of crisis communication via social media, in order to know whether the needs of various audiences and strategic partners were met. This would improve the efficiency of communication in the next crisis. (Lovari and Boven 2019)

2.4 Accessibility of crisis related information

BuildERS research states that there are possible structural shortcomings that obstruct accessibility of risk and crisis information to all. Information should to be adapted to the needs and capacities of different people. D1.4 emphasises that social networks are very important in assessing information. Therefore, building upon and supporting community relations and endeavours to include marginalized groups by different ways of communication could increase resilience in crisis.[35]

The United Nations Convention on the Rights of Persons with Disabilities recognises communication as a human right. Article 21 lists several languages such as sign language, Braille, augmentative and alternative communication (ACC) and "all other accessible means, models and formats of communication of their choice by persons with disabilities in official interaction". Private entities that provide services to the public (also online) should provide information and services in an accessible manner and in usable formats for persons with disabilities. It also mentions mass media, which should be encouraged to make services accessible. (United Nations 2006.)

The American Speech-Language-Hearing Association (ASHA) defines ACC as all the ways we share information without talking. The need for alternative ways to communicate can stem from multiple factors. Its use can be short term such as after a stroke or a head injury. Other conditions might be more permanent or life encompassing such as cerebral palsy and autism. Diseases that worsen over time can also cause speaking problems such as the Huntington's disease and amyotrophic lateral sclerosis (ALS). (ASHA.)

[35] Hansson S. et al. (2019). *D1.4 Communication behaviour in Europe and vulnerabilities understanding communication-related vulnerability and resilience in crises,* BuildERS project

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There are different ways to use ACC. Mostly, they include the use of single-meaning pictures, alphabet systems or pictures with more than one meaning (one well known set are Picture Communication Symbols or PCS). Different technologies or tools can also be utilized though they are not necessary in all situations. Severe speech or language problems may be situational as their need can vary and change in one's lifetime. They can also be the end-result of a crisis. Furthermore, they may add a vulnerability factor that is not so clearly tied to preconceived categories or groups of people.

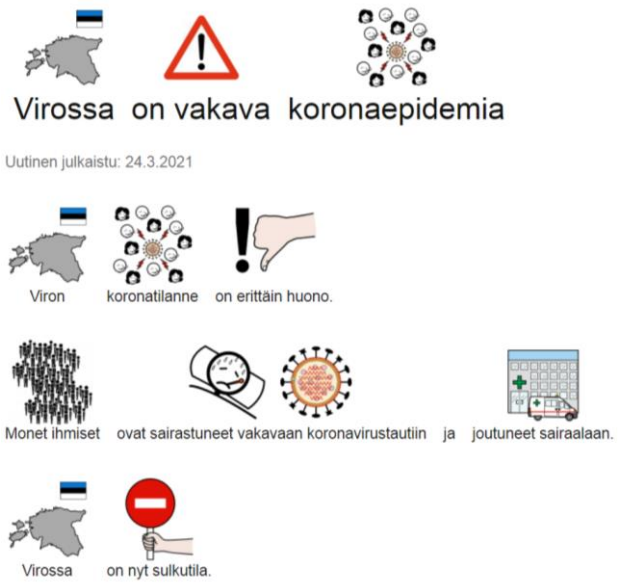

Figure 4. Example of a piece of news utilizing Picture Communication Symbols. The news story (Title: "In Estonia, there is a severe corona epidemic") explains the COVID-19 situation in Estonia (Source: Selkosanomat)

Plain language and easy read (or easy-to-read language) are forms of communication that advance accessibility. Vollenwyder et al. (2018) define plain language as the attempt to improve government information with a focus on clear and precise writing while easy-to-read language was designed for people with cognitive and learning disabilities. Nonetheless, it also benefits people with low language skills and auditory disabilities though there are certain suggested modification that should be taken into account. Easy-to-read text is meant to be simple with very clear sentence structures, making only one statement per sentence and avoiding difficult words. It must be said that different entities and countries define plain language and easy-to-read language similarly or one word may sometimes be used for both. Nonetheless, plain language can benefit all citizens but especially those with difficulty understanding jargon or complex messages like people with low language skills, some elderly people, people with dyslexia and people with memory disorders (Selkokieli). As an example of the amount of people that benefit from plain language, one study states that there are 6.2 million people in Germany alone who are not able to read or write properly (Grotlüschen 2018).

Currently, Sweden is the only country where there is an actual authority responsible for the use of easy-to-read language. Nonetheless, it has advocates in Finland, Norway, Netherlands and Germany who all have organizations, companies or networks which try to advance its use.[36] The following

[36] In Sweden: https://www.mtm.se. In Norway: https://lesersokerbok.no. In Germany: https://www.leichte-sprache.org. In Netherlands: https://www.eenvoudigcommuniceren.nl.

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pyramid is an attempt to exemplify the users or rather beneficiaries of the different types of communication means described here. Plain language is beneficial to most users and those effected by the information overflow. Easy-to-read language is intended for people who benefit from even more simplified and clear structure of communication. ACC is targeted at people with severe communication problems who do not communicate through speech or regular sign languages; it may contain different tool and supportive measures. Individuals' communicational needs may change during their lifetime. The arrow between easy-to-read language and plain language indicates the conceptual difficulties and overlap between these terms.

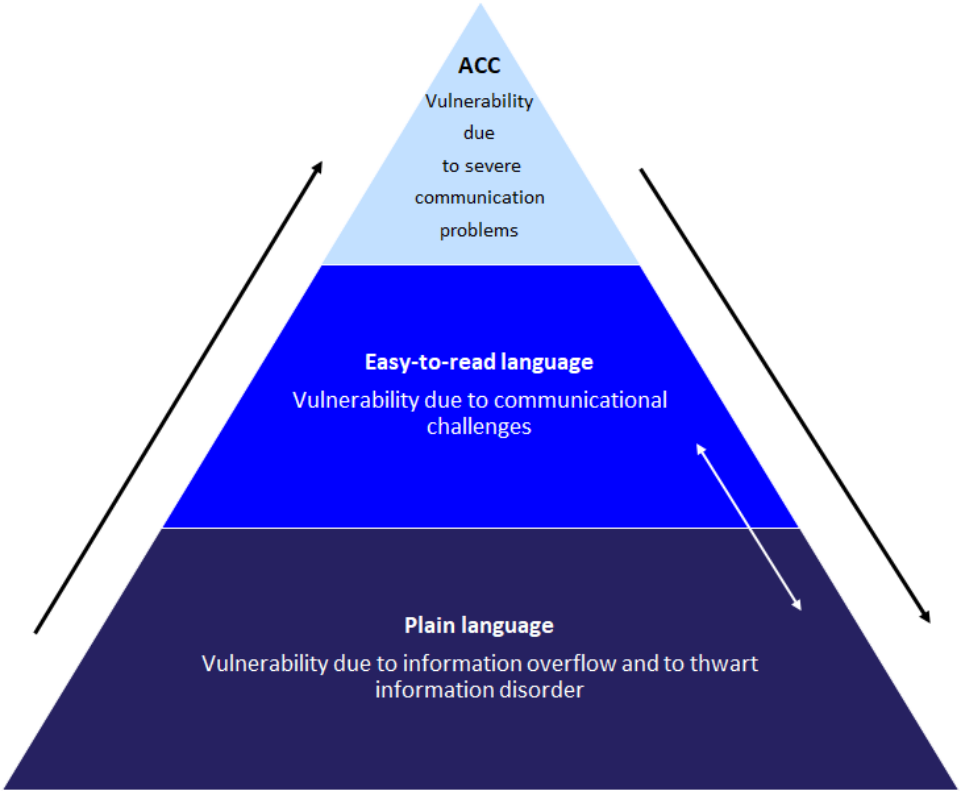

Figure 5. Situational vulnerability related to communication. People may move between categories within their life-time or their communicational requirements may be more permanent and long lasting.

2.5 Media and information literacy

According to BuildERS research people may become more resilient to crises if they are trained in media and information literacy and are able to critically evaluate information, and know where to find factual information in crisis.[37] Anderson (2020) divides the necessary action against misinformation into two main categories: 1) private action and state regulation of the social media / technology landscape and 2) media and information literacy. He defines media and information literacy as

[37] Hansson S. et al. (2019). *D1.4 Communication behaviour in Europe and vulnerabilities understanding communication-related vulnerability and resilience in crises*, BuildERS project

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providing tools to assess risk within information. It teaches critical thinking, promotes understanding of the goals of the provider of information and the role of media in the society. In addition, it includes the understanding of one's own psychological susceptibilities to misinformation. In line with the above, in the BuildERS project we see that individuals need media and information literacy skills in order to carefully retrieve and select information and tackle false information (Torpan et al. 2021). The end goal of media and information literacy training is to teach citizens who and what to trust, to identify informational manipulation and to produce quality content.

Some scholars see critical media and information literacy training as a more efficient way to tackle false information than using verification tools for spotting "false information" (McDougall, 2019). However, these are not necessarily mutually exclusive. Both intelligent technologies and people themselves should be able to identify false and otherwise harmful information. Both are needed. As an example of technological solutions to curb the detrimental effects of misinformation, machine learning can be used to automatically detect misinformation on social media. It is nonetheless difficult to find technical solutions to uncover misinformation online, due to the fact that it comes in different forms such as rumors, conspiracy theories, and falsified facts and manifests in different multi-media formats (images, audio). (Zhang, Zhou & Lim, 2020.)

BuildERS project Stakeholder Forum sees that countering online misinformation requires multiple means. Both the technological means of proliferation and the human susceptibilities to share unverified information must be addressed in order to prevent misinformation from spreading. As stated, private companies have already taken some action to mitigate misinformation automatically. EU has also recognized the need to update regulation regarding social media platforms and online businesses. EU has taken action to thwart the “misuse of online platforms by malicious actors to spread disinformation, impacting democratic participation” by imposing a Code of Practice, which has been signed by several major social media platforms.

EU has also stressed the need to promote and support independent fact checking and media and information literacy activities. The Self-Regulatory Code of Practice targets ad placement, aims to increase transparency to political and issue-based advertising and tries to tackle fake accounts and use of bots in disseminating disinformation (European Commission). As stated, the Code of Practice is self-regulatory and the European Commission has taken further action in December 2020 when it released The European Democracy Action Plan, which aims to empower citizens and build a more resilient Europe by promoting free and fair elections, strengthening media's freedom and by protecting democracy from disinformation and other manipulation. The Action Plan recognizes the role that social media platforms play in the proliferation of disinformation, the effect of digitalization on the integrity of the political process and the need to take on the challenge posed by the digital transformation to our democratic resilience. (European Commission 2020). The Action Plan suggests more robust action against disinformation in the future.

EU has been active in relation to the enhancement of media and information literacy skills at the European level. The European Commission has for example, launched the European Media and information literacy week in 2019. In 2016, the Commission mapped media and information literacy practices in 28 EU member states including the identification of the most significant projects in the member states since 2010. (European Audiovisual Observatory 2016) We included this study to the material when discussing media and information literacy with the Stakeholder Forum (within workshops on misinformation and disinformation).

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3. Co-creation in BuildERS project

3.1 Process and its use

Co-creation sessions have been organised in the BuildERS project as tabletop exercises and using the Howspace online environment (digital workshop facilitation platform). The use of an online environment was included in the original project plan, but the Covid-19 pandemic made the use of the online environment invaluable. The tabletop exercises and workshops were based on the BuildERS theoretical model, according to which better risk perception and risk awareness reduces vulnerability and increases resilience. Tabletop exercises and workshops were also based on the understanding that there is a strong correlation between risk awareness and risk communication. Reliable, trustworthy and credible risk communication improves risk awareness. Thus, it is important to explore those factors that weaken the trust in information sharing especially in social media.[38]

Scenario-based tabletop exercises were organised online with the participants from four countries: Estonia, Finland, Germany and Italy. As a continuation to these exercises, we held three identically structured workshops, where participants innovated solutions to tackle false and harmful information. The workshops were arranged separately for participants from the following three countries: Sweden, Norway and Belgium.

This chapter describes the co-creation process and how it has been carried out in all co-creation activites of the WP6. Co-creation in BuildERS comprises of sequential stages: Framing, Knowing, Analysis, Synthesis and Creating (Figure 6). However, this process is not linear: there is iterativity between the key stages. The figure below shows both the overall process − from framing to creating (picture A) and the stages of the development of scientific and process innovations to enhance risk and crisis communication. Thus, just the first steps of cocreation and the respective “interim milestones” are reported in this document. Furthermore, BuildERS project produces also other innovations that are not directly related to communication. All the scientific, technological and process related innovations will be explained in more detail in the forthcoming deliverable D6.6 *Stakeholder verification of findings and the innovation potentials*. This later document will also cover the last steps and stages, that are not yet described here.

[38] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project

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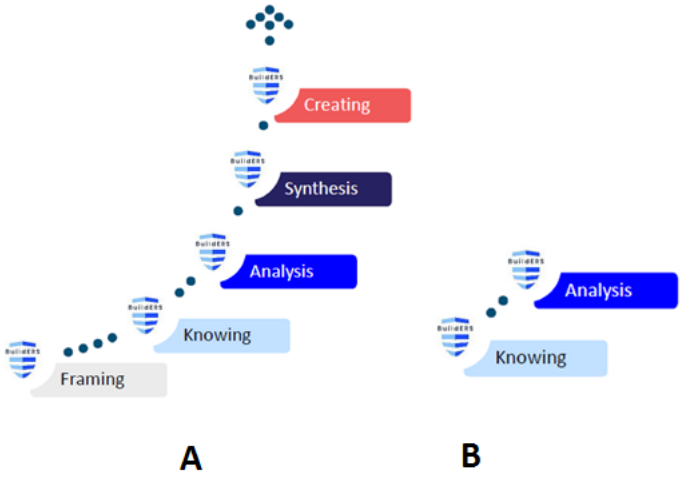

Figure 6. Stages of the cocreative process in the BuildERS project (A) and stages related to the cocreation of risk and crisis communication related innovations reported in this document (B)

The cocreation process starts with the *framing* stage, which clarifies the focus of the research and development work and the potential for scientific social, technological and process-related innovations. In our case, the framing phase begun with a thorough reading of the project plan: Description of Action (DoA) for the BuildERS project. BuildERS DoA states, for instance, that in order to respond to the project objectives (Objective 3) we should specifically focus on social media and information literacy recommendations and explore public use of social media as well as techniques of public use of social media.

The process was continued with a simplified Delphi-process, which supported the generation of the theoretical framework and glossary of key concepts for the project: BuildERS deliverable No 1.2, *Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*.[39] Along with the iterative writing process, we organised two rounds of validation workshops on the theoretical model's development. We collected feedback of the draft-model from the first responder project partners, BuildERS project Advisory Board (AB) and external stakeholders. Between these workshops, academic contributors of the BuildERS project developed the theoretical framework and the definitions of key concepts and variables for further research.

The work that is reported in this document is part of the *knowing stage* of the co-creation cycle, which aims at collecting new viewpoints to an issue. This stage also validates and assesses the timeliness of the research knowledge. At this stage, we together with experts in communication and/or crisis management have validated the crisis communication related research results in the BuildERS project. In addition, we collected experiences "from the field" and added to our knowledge of the capacities and competencies of practitioners to tackle false and/or harmful information. This document also represents the results of the analysis stage regarding crisis communication related innovations. In the analysis stage, gathered knowledge is transformed into "possible innovation paths" (chapter 7. Ideas for innovation). In the analysis, we have developed possible innovations from the gathered

[39] See BuildERS project website: https://buildersproject.eu/results

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responses (the combination of research results and Stakeholder views and ideas). These will be further tested in upcoming activities i.e. the *synthesis* stage.

The last three stages, *analysis, synthesis* and *creating,* refer to the drafting and testing the prototypes of practical and process innovations together with the Stakeholders. In BuildERS project, this includes evaluating and assessing emergent technologies and existing tools identified either in BuildERS report D2.4 Catalogue of tools, technologies and media opportunities for disaster management or in our co-creation sessions. The innovations coming from our facilitated co-creative activities (brainstorming events, table-top exercises, workshops, panel discussions, technology demonstrations and end user tests, research colloquiums) are the following:

- new ways of interagency collaboration in communication in order to reach all segments of society
- new means to manage information disorder: to tackle false and harmful information in crisis, which increases or creates new vulnerabilities
- new ways to train first responders and build their capacities to communicate and interact with the vulnerable groups and individuals, without making stereotypical assumptions of their vulnerabilities or capacities

In the next page, there is a process flow chart, which explains the iteration process. It is important to note, that the potential innovations are at an initial stage and will be further cocreated with the stakeholders on each field of expertise.

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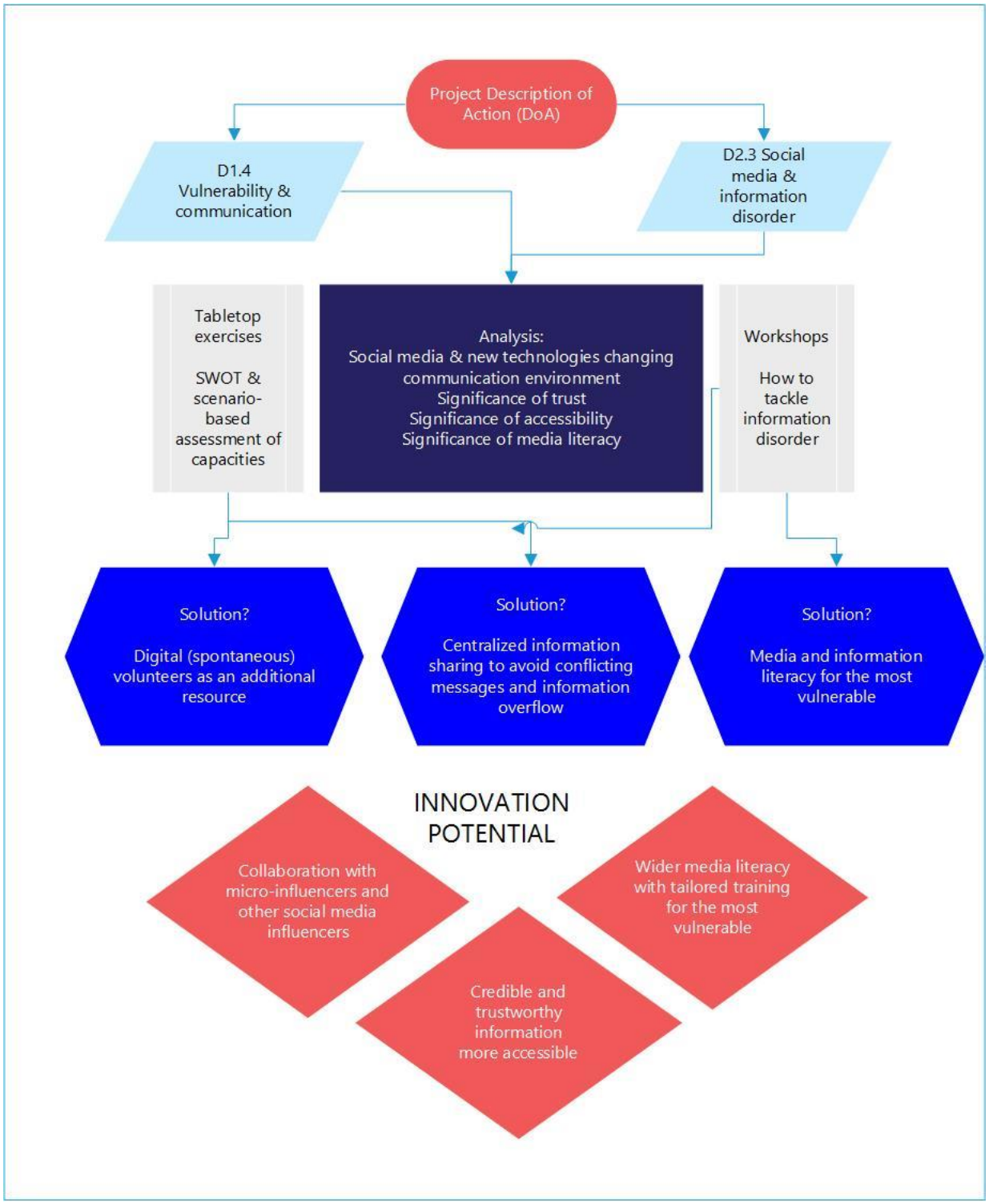

Figure 7: Process flow chart of co-creation on risk and crisis communication and information disorder

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3.2 Cocreation of scientific and process innovations related to risk and crisis communication

With the tabletop exercises and workshops, we collected stakeholders' experiences in order to validate the research results created in BuildERS Work Packages (WP) 1 and 2 and use them in the cocreation of practical solutions for the crisis management practitioners. The results feed into various deliverables of WP6. The process is iterative and the results will undergo at least two rounds in the Stakeholder Forum. Our main materials for this deliverable have been the following BuildERS research reports

- D1.4 which identifies vulnerable populations' trust in media sources, social media use (or lack thereof) and proneness to be affected by disinformation in the context of disasters. [40]
- D2.3 which explores government response to misinformation (disinformation) and gives recommendations relating to it. [41]

We have used these two risk and crisis communication related reports as a background material, when planning the tabletop exercises and workshops. Our aim has been to explore crisis communication and the effects of false and harmful information in crises with the Stakeholder Forum: communication specialists and experts and practitioners in the field crisis management.

Tabletop exercises

In spring 2020, we organized four online tabletop exercises on crisis communication in Finland, Estonia, Germany and Italy using the digital facilitation platform Howspace. The first part of the exercise collected participants experiences of identifying and tackling false information including information influencing, which deliberately aims at harming the crisis management efforts. The second part of the exercise comprised of a SWOT analysis of the current communication environment. We invited the participants to look at their intra organizational capacities in terms of communication; we requested them to assess their organizational strengths and weaknesses in trying to reach vulnerable groups.

[40] Hansson S. et al. (2019). *D1.4 Communication behaviour in Europe and vulnerabilities understanding communication-related vulnerability and resilience in crises*, BuildERS project

[41] Bäck A. et al (2019). *D2.3 Social media campaign analysis and governments' responses to disinformation*, BuildERS project

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As the third step, after the intra organisational capacity assessment, we provided three examples of common threats in disasters:

- Publicity-oriented behaviour, which threatens individual and public safety like photographing accident scenes and publishing them on social media,
- Unwanted publicity of victims like sharing their personal data (names and photos) in social media
- Stigmatization and hate speech towards the suspected.

We encouraged stakeholders to ponder their abilities and available means to respond to these challenges. All of them may severely hinder crisis response and recovery. Disasters can attract spectators, who hinder rescue operations. They may take pictures and videos from accidents. In some European countries, this behavior has even been criminalised. Information about victims (names and pictures) are often spread in traditional and social media before authorities have had a chance to contact family members. Eye witnesses, survivors, and people in shock are also in need of protection from unwanted publicity. Also, family members and friends need time to recover and mourn. How could we protect the victims of crisis from harmful publicity?

As the fourth step, the tabletop exercises assessed the preliminary BuildERS findings relating to strengthening social capital and building on social support networks and volunteers. We asked exercise participants of their personal opinions on two future opportunities: collaboration with the so-called influencers, and virtual or digital volunteers. Both influencers and virtual volunteers use internet and social media platforms as channels to share information and provide support for those impacted by a crisis. As an example of influencer, we introduced a popular Finnish video blogger (Roni Back), who uploaded several videos targeted at children: he interviewed authorities and explained how to protect oneself from the coronavirus infection. As an example of virtual volunteering, we shared information on a group of German IT-specialists who designed online maps to inform citizens of (im)passable areas during severe flooding.

As the fifth and final step, exercise participants were invited to imagine key partnerships in organizing efficient risk and crisis communication in two different fictional crisis scenarios. We also asked them to create ideas for collaboration with spontaneous volunteer networks in crisis.

In the table below, are shown the facilitation method, thematic focus and the background materials used in the four tabletop exercises held with experts from Estonia, Finland, Germany and Italy.

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Method	Modified SWOT-analysis of capacities & working environment ○ strengths and weaknesses in terms of communication ○ analysis of working environment ○ means to overcome selected challenges ○ opinions on selected future opportunities Scenario-based analysis of communication strategies in two kinds of situations/working environments
Main content	Vulnerability in terms of communication ○ Vulnerability arising from the spread of false and harmful information ○ People most difficult to reach and the reasons behind the difficulties ○ Internal (organisational) strengths and weaknesses in terms of communication ○ Future threats and opportunities to crisis communication 2 fictional crisis scenarios explored ○ situation, when there are strong social relations and networks and a high level of trust (i.e. high level of bonding/bridging and linking social capital) ○ situation, when there are weak social relations and networks and low level of trust (i.e. low level of bonding/bridging/linking social capital)
Background material	D1.3 Report on Segments of Vulnerability Country by Country Basis - Inside and Outside the Official Data 1.4 Communication Behaviour in Europe and Vulnerabilities, Building European Communities' Resilience and Social Capital D2.2 Case Country Analyses and a Cross-Country Comparative analysis of the Functioning of Disaster Resilience Systems

Table 1. Method, content and background material of tabletop exercises on risk and crisis communication.

Workshops on information disorder

In autumn 2020 and early in 2021, we organized four Howspace workshops on misinformation in Sweden, Norway and Belgium. The fourth workshop was international and open for all relevant stakeholders. These workshops digged deeper into the challenges of mis-, dis- and malinformation.

First, we asked the participants to share their experiences on four types of phenomena that have been related to the propagation of false and/or harmful information. Like the tabletop exercises, workshops also drew from previous BuildERS research; they involved both validation of research results and an attempt to add new knowledge on the issues: stakeholders' experiences from the field and their lessons learned from their working practises. In addition the workshops engaged stakeholders in co-creation of solutions to wicked problems: process and practise innovations to be applied in the crisis communication and other fields of crisis management.

Second, we shared some aggregated results from the previous tabletop exercises, and asked the participants to share their experiences and lessons learned of crises with different types of misinformation. We also asked them to identify who was hurt by the misinformation.

Third, we asked the participants to share their experiences and innovative ideas on different types of phenomena related to misinformation and crisis communication. The themes for further elaboration

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(i.e. co-creation), were derived from previous BuildERS research in D1.2, D1.4, D2.3 and D2.4 and are presented below.

In order to elaborate scientific and process innovations related to all three stages of the crisis management cycle mentioned in the BuildERS project theoretical framework, we decided to elaborate the following themes further:

- Media and information literacy in preparedness
- Potential of social media influencers
- Management of publicity-oriented behaviour and protecting the victims from harmful publicity
- Potential of online crowdsourcing[42]

Below are explained the method, content and background material of workshops to innovate means and methods to tackle false and harmful information in crises.

Method	Brainstorming of novel solutions related to ○ Media and information literacy ○ Collaboration with the social media influencers ○ Managing publicity oriented behaviour of taking photos and videos from crisis scenes ○ Crowdsourcing methods in collecting information
Main content	○ Development of main findings of tabletop exercises ○ Experiences of misinformation and lessons learned ○ Evaluation of 4 novel misinformation related phenomena ○ Innovative ways of tackling novel misinformation related phenomena
Background material	D1.4 Communication Behaviour in Europe and Vulnerabilities, Building European Communities' Resilience and Social Capital D2.3 Social Media Campaign Analysis and Governments' Responses to Disinformation D2.4 Catalogue of Tools, Technologies and Media Opportunities for Disaster Management

Table 2. Method, content and background material of workshops on information disorder.

Participants

In total, there were 84 participants; 45 of them participated in the tabletop exercises and 39 in the workshops.

Activities	Number of participants
Tabletop exercises	45
Workshops	39
Total	84

Table 3. The number of participants in tabletop exercises and workshops.

[42] This theme will be discussed in BuildERS report *D6.4 End-user assessment of the new tools and technologies for disaster management*.

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Expertise	Belgium	Estonia	Finland	Germany	Italy	Norway	Sweden	Portugal
Awareness raising and advocacy								
Civil protection								
Communication								
Consultancy services								
Coordination/Management of volunteer action								
Critical infrastructure services								
Education/Training								
Fire and rescue services								
Health care								
Law enforcement								
Media/Journalism								
Military/Defence								
Policy making								
Psychological support								
Research and development								
Social services								
Strategic planning								

Table 4. Representation of invited stakeholders' field of expertise.

The project partners were responsible for contacting relevant stakeholders in their countries from the fields of crisis management and communication. The invitations were sent in native languages, except for the international misinformation workshop. The table 4 shows from which field of expertise the stakeholders were invited. From the varied list, we can conclude that stakeholders who took part in the co-creation processes represent a variety of societal sectors and expertise.

The participants represent eight European countries: Belgium, Estonia, Finland, Germany, Italy, Norway, Sweden, and Portugal.

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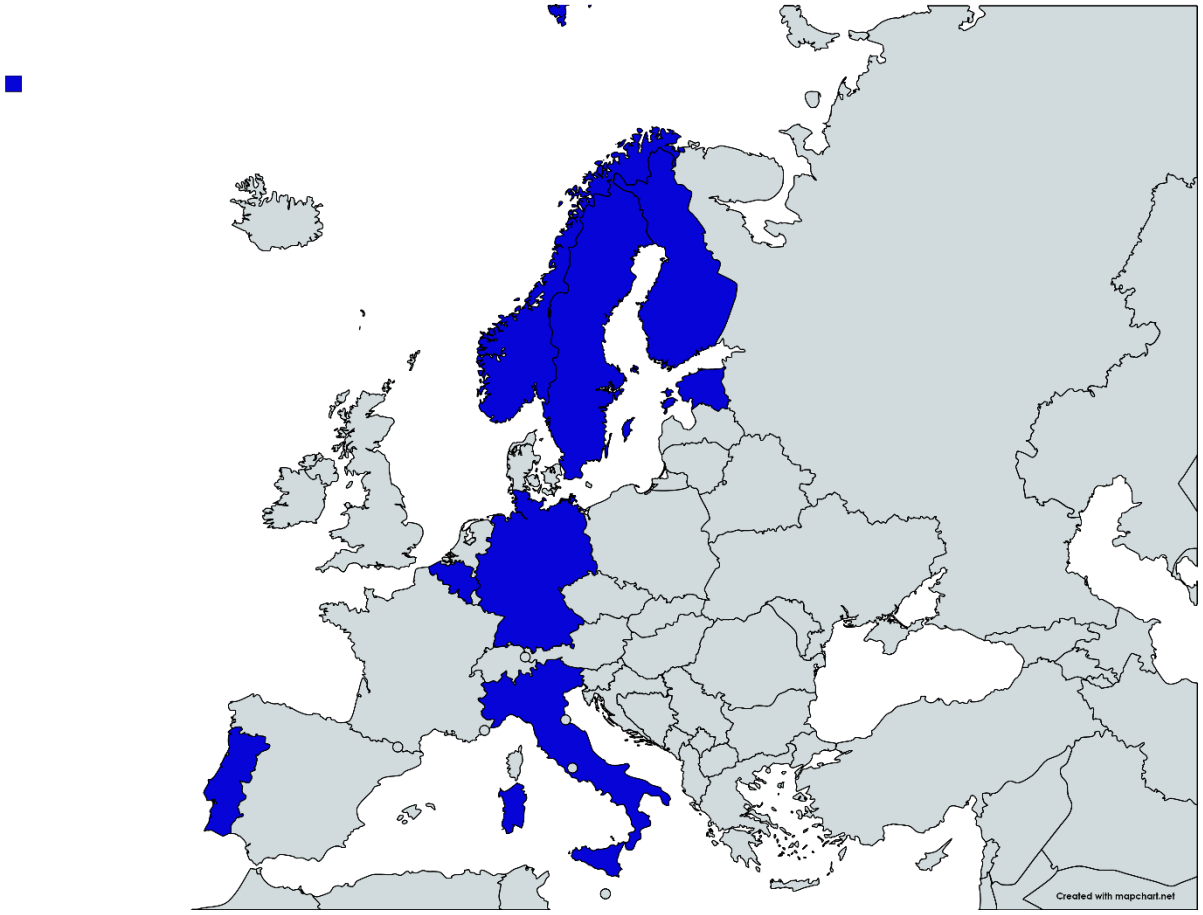

Figure 8. The geographical distribution of participants in tabletop exercises and workshops.

As the participants entered the Howspace platform, they were asked some background questions. The first question for all the participants was the length of their working career in their current field. The proposed categories were: less than 5 years, 5 to 10 years, 10 to 20 years, and over 20 years. Both the middle categories were represented by 31 % of the participants, 21 % had worked less than 5 years and 17 % over 20 years in their current field. We can conclude that the participants represent the different year categories almost evenly.

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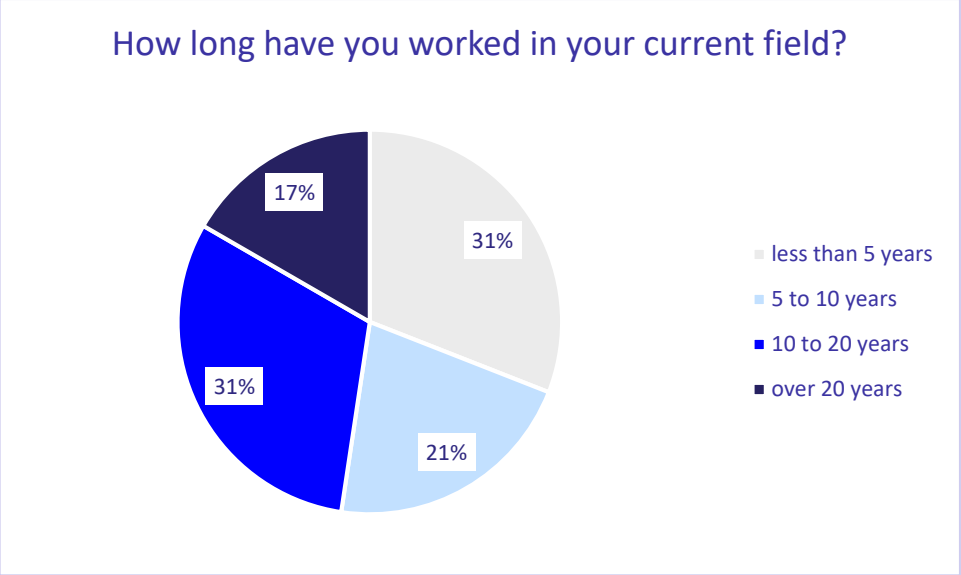

Figure 9. The percentages of how long the participants have worked in their current field.

The participants were also asked whether they work in the public or private sector or in an NGO. All these sectors were represented in the activities, but the public sector was the most common one. Additionally, the participants' organisations operate either in the global/EU, national, regional, or local level. The most common level was the national level.

As the invitations were sent in native languages, the tabletop exercises and workshops, except for one, were also held in native languages in order to lower the barrier to participate. This means that the Belgian workshop was translated both in Dutch and in French. The Belgian workshop was also held twice, firstly in December 2020 and secondly in February 2021, in order to widen the pool of stakeholders. For the second round, Tampere Region EU Office in Brussels and a contact from Belgian law enforcement were requested to share the invitation.

The final round of the misinformation workshops was international, so it was held in English and it was open for all relevant experts. The whole BuildERS consortium was asked to share the invitation.

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4. Stakeholders' experiences and views

4.1 on misinformation in crises

In the workshops, we explored stakeholders' views on opportunities and challenges to tackle misinformation. Based on the research carried in BuildERS project, we highlighted two situations that often enable the spread of misinformation in crisis:

- fast developing crisis situations, where the correct information is updated quickly,
- crisis situations, when there are several conflicting messages shared simultaneously.

We asked the respondents to share their experiences on the phenomena, how they discovered it, who was affected by it and if it caused harm. They were encouraged to share both personal and professional experiences and lessons learned from the experience.

In a fast-developing crisis situation, things may change quickly making earlier information obsolete. Then it becomes difficult to know, which advice is correct, and which recommendation should be followed. For example, during the COVID-19 pandemic, medical research has been published exponentially, so guidelines can refer to outdated knowledge. People may share old information unintentionally. Workshop participants mentioned that during major events there will always be different situational awareness: many actors and high stress levels can sometimes lead to contradictory communication. Quality assurance is vital before information is disseminated externally. Furthermore, media coverage and authority guidance do not always align.

In some situations, it may be hard to decide what to believe, as there are several competing views. For example, the COVID-19 pandemic has brought many unknowns, and differing views expressed by experts in different positions. The global scale makes the information overflow even harder to manage, as there exist multiple "official lines". Different countries have put emphasis on different actions to slow or stop the virus from spreading, which may confuse people if they start comparing these guidelines and their political motivations.

The Swedish communication experts pointed to the 2017 Stockholm (terror) truck attack as a situation where unverified information was widely spread in mainstream media. This contributed to fear and confusion in the public who were unsure if they were in danger. Some of the early information turned out not to be true. Current COVID-19 pandemic was also mentioned as an example of crisis, where it has been challenging to convey correct and up-to-date information in a constantly changing situation.

Overall, the spread of misinformation was considered inevitable in all crises. It is nonetheless important that crisis communicators only release verified information as it effects the credibility and trust in social institutions. In the pandemic, the constantly evolving situation makes truth elusive: risk and crisis communications practitioners should work closely together. Another crisis communicator stated that they had responded to misinformation during the refugee crisis in 2015 by releasing a factsheet. The factsheet was used to counter stigmatization and hate speech disseminated in traditional and social media.

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Citizens tend to criticise crisis communicators of censoring or obscuring data. One participant reminded, that today also the most vulnerable individuals are constantly one step ahead of authorities in information gathering. Therefore, crisis communicators must be as transparent as possible; it should be expressed clearly if information is uncertain and that what is said today, may need to be revised tomorrow. Although the decision-making should be based on scientific facts, it is important to communicate to the public how the scientific process works. Even the scientists cannot say, what the final truth is. Scientific (and political) discussion of the protective face masks was shown as an example of a situation, where there is no clear scientific consensus. Nonetheless, it was brought forth that it is vital that different authorities share a unified message with the citizens even if they do not fully agree with each other.

One responder mentioned that it is important to be aware of the way digital media is structured both for communicators and media users in general. Responders also mentioned algorithms, which determine what information receives the widest audience in social media. Due to algorithms, we often receive content that arouses strong emotions; in crisis situations, when people are more emotionally driven, this may hinder the recovery process. We are presented with dramatic and shocking content, which may increase our anxiety and fear, instead of calming and comforting us.

Media also provides emotionally exciting content for commercial purposes. The so called "clickbait" is designed to attract attention, which increases advertising revenue. One responder mentioned "filter bubbles" that make it possible for a person's digital reality (and the opinions that abound there) to greatly differ from their physical reality, and this may add confusion. Many stated that media should be held accountable for spreading misinformation. It is not sufficient that news media share that the information is unverified. Some felt that media did not fully understand the damage done when posting (eventually) false information. One responder (a communications specialist and an educator) stated that such instances reduce faith in media ahead of the next crisis.

One communicator from a large NGO with much experience of major crises stated that in a single crisis there are several different interpretations of risks and consequently, different ways to prepare. Another workshop participant, a crisis communication specialist said aptly: "we must ask ourselves if we think something is true, because it is in line with our perception. To put it bluntly, everything is politics, and everything is propaganda." Thus, as the BuildERS project theoretical framework emphasizes, risk awareness and risk perception are two different things. [43]

Internet and social media platforms do not always show or highlight the latest content, which creates confusion. One responder stated that it is essential to use timestamps on posts in social media and in press releases. This is especially important in long-lasting crisis where the situation evolves overtime. It should be explicitly pointed out, that previous messages are no longer valid every time one updates content. One responder stated that authorities can never beat popular news platforms with their communication. It is therefore important not to respond to rumours or misinformation before there is confirmed information and then be quick to release that information.

Responders stated that people who experience that information or messages are not directed at them in a language they can understand are most affected by conflicting messages. Trust towards the communication channel has an impact on risk perception. One (international) NGO responder mentioned

[43] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project

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their community engagement activities: they have tried to find the most trusted channels and use these in information sharing. They have produced short series of interviews with local experts in several languages and then disseminated them via various channels.

Main issues mentioned in the workshop participants responses:

- Misinformation is inevitable in all crises - especially in human-induced crises like terrorist attacks
- Trust and accountability of media is important: media should be held responsible for sharing false information and follow their journalistic ethical guidelines
- Digital/social media platforms should adjust their algorithms so that they highlighting new and verified information
- Crisis communication needs to be transparent and admit the ambiguities, even if citizens tend to criticize crisis communicators of censoring or obscuring data
- People need to be educated on the scientific processes; science is dynamic and does not tell a final truth
- We should efficiently use trusted channels in communication
- Timestamps on social media posts and press releases help identify outdated information

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4.2 of disinformation and information influencing

In tabletop exercises, we shared some tangible examples on how information can be used in purposefully harmful ways. We included an infobox on different types of information influencing. **Information "laundering"** gradually distorts and decontextualizes information. The aim is to make it difficult or even impossible to tell whether the source is true or false. Laundering may use multiple means such as deceptive identities and fake videos created with AI (deepfakes).One method is to mask intentionally false information (disinformation) as humour and satire. Different kinds of memes: images and videos are very popular.

Information flooding creates confusion by overloading audiences with information either positive, negative or irrelevant. It occurs in social media and other media channels like TV, radio, newspapers.

Polarisation aims to strengthen opposing views and public opinions. It is based on existing value differences and tensions. Polarisation utilises tactics such as misleading identities, where the actors imitate trusted individuals or organisations. Secondly, information may be tailored so that it appeals to certain groups. Third, popularity of certain opinions may be manipulated: some groups are silenced so that their opinion is made to look like the minority opinion. At the same time false information can be spread.

Provocation exploits sensitive issues. The aim is to antagonize people to generate anger and discord. This technique aims to trigger emotional vulnerabilities e.g. by using malicious rhetoric. We also shared how satirical content can be used for good and bad purposes in the disguise of humour (e.g. memes):

Figure 10. Excerpt from the inspiration material for the exercises (Memes).

Various forms of false information (intentional or unintentional false or misleading claims, malicious disinformation, rumours, pranks, and outdated information) that people may be exposed to in crisis can put them at increased risk and/or complicate the work of resilience and emergency management institutions. Conceptually, it is important to acknowledge that there are many guises of false

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information (Wardle & Derakhshan, 2017) which range from satire and misleading content (misinformation, which may be shared without intending harm) to manipulated or fabricated content (disinformation, which may be shared with destructive intent). (D1.4 page 23)"[44]

Individuals, businesses and governments increasingly use social media tools, such as Facebook, YouTube, Twitter, and Instagram to interact and to share and monitor content, including texts, images and videos about risks and crises. In crises, people may not rely on 'official' data sources alone. Therefore, they may seek and share information via social media to assess the situation, determine what to do, and share their views (Stieglitz, Bunker, Mirbabaie, & Ehnis, 2018) – so it is likely that they share or receive some inaccurate or incomplete information within their networks that may put them or others at risk and/or hamper resilience or emergency management.

Information influencing can be very difficult to recognize and often noticed retrospectively. We asked the responders in the tabletop exercises to share if they had noticed any false or harmful information spread in relation to the coronavirus. The responders in Italy named sensationalist media as a spreader of false information. Sensationalist media encouraged click-bait with enticing titles and news stories related to conspiracy theories. They also mentioned media's eagerness to share statistics about the ill as well as their personal information leading to alarmism in the population.

Italians pointed out experts as spreaders of conflicting opinions. Experts also displayed trivializing behavior, which was understood as sharing of harmful information. Many of the responders had also noticed the spread of conspiracy theories such as that the coronavirus was developed as a biological weapon, that it did not exist at all, or that it was related to the 5G network. Finnish responders stated that public debate on the pandemic contained all elements introduced in the infobox: flooding with various kinds of information - true and false, polarization of opinions and perspectives, provocation to anger and discord and "laudering" of information by distorting it and taking it out of context. However, one responder speculates that false information may also be shared unintentionally. German respondents mainly emphasized provocation and hate speech in their responses while the Estonian experts repeatedly emphasized the abundance of information as problematic during the early outbreak and the following lockdown.

The increased need for information made apparent existing gaps in media and information literacy. The participants mainly viewed media's coverage to be accurate, though one responder mentioned concrete examples of disinformation that had penetrated international and national media coverage. They had noticed false information in different social media platforms such as Facebook but also in traditional media like television and radio. Much information was shared from unknown sources.

[44] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project

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When reflecting their experiences during the COVID-19 pandemic, exercise participants had noticed the following:

- Information overflow confusing people
- Conspiracy theories are weakening trust towards authorities
- Need to regulate media as it feeds conspiracy theories (e.g. medias' eagerness to create sensationalist clickbaits)
- Conflicting information is shared by experts with high media visibility
- Polarization of political opinions and overall politicization of the crisis
- Lack of media and information literacy
- Hate speech towards certain nationalities

All the above shows, how the mis-, dis- and mal-information are tied together and thus, are worsening the vicious problem of information disorder. Although media and information literacy is generally a necessary skill, that enables to navigate the media landscape, it can also be too excessive and lead to questioning of (almost) information – even information disseminated via official information channels. This excessive media and information literacy, or criticality may lead to conspiracy theories, which presume that the ones in power, will deliberately share false information, or do not tell the whole truth. We asked the opinion of our workshop participants on this dilemma; how harmful it is for the crisis response, how difficult it is to manage, and finally, whether it will increase in the future. (See figure 11)

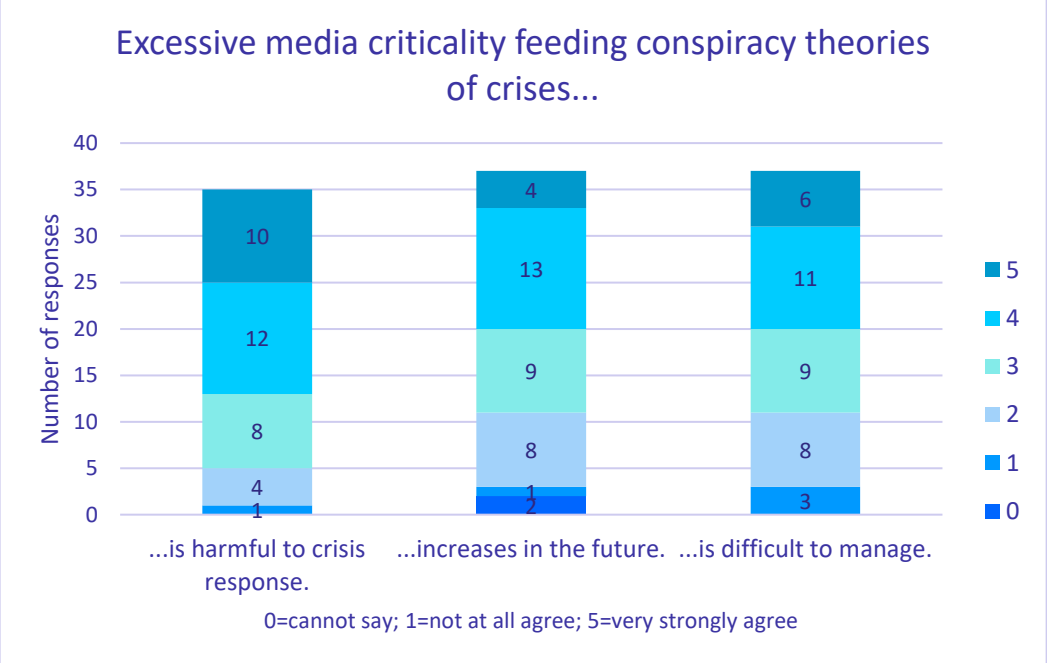

Figure 11. Poll on the harmfulness and increase of media criticality, feeding conspiracy theories

Majority of respondents saw the conspiracy theories feeding media and information literacy/criticality as a very or rather harmful to crisis response and also as rather difficult to manage. Majority of workshops' participants also estimated, that the conspiracy theorists will increase in the future, and thus, the phenomena will continue to be one of the major challenges for risk and crisis communication.

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4.3 of harmful malinformation in crises

In the tabletop exercises, we explored different types of harmful information as a part of a SWOT analysis:

- Publicity-oriented behaviour, which threatens personal and public safety: taking pictures and videos from crisis situations and publishing them online. This may be related to competitive "challenges", games, where individuals risk their own safety in order to get documentary material, which attracts wide audiences.
- Unwanted publicity of the victims and survivors of crisis: sharing of personal data and other information before authorities have released information.
- Stigmatizing hate speech: sharing speculative information about possible perpetrator/s before authorities have released verified information. Very typical especially in human-induced crisis.

Protecting the privacy of victims, eye witnesses and family members

In the workshops, we continued the discussion of publicity-oriented behaviour, and tried to innovate ways to decrease its negative consequences, like publishing the personal data of victims and survivors. Participants were requested to assess the severity of this challenge from the perspective of crisis response and how difficult it is to manage. In addition, we asked whether the participants felt it would increase in the future. Majority of the respondents to the poll, estimated that the phenomena is very or rather harmful and thus hinders the work of first responders and other agencies responsible of crisis response. Opinions were divided on whether the issue is difficult to manage: another haft estimated it to be very or quite challenging, whereas the other half did not view management to be so difficult. Nevertheless, majority of respondents assessed that the phenomena will increase in the future.

Figure 12. Poll of opinions on harmful publicity-oriented behaviour

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Decreasing stigmatization and hate speech

In the tabletop exercises, the responders were asked how they would manage the phenomena of stigmatization and hate speech. Italian responders stated that official communication activities should emphasize solidarity during a crisis first and foremost. Action at the state and national level could include awareness raising government campaigns and campaigns on misinformation. Education was the most often mentioned solution to stigmatization and hate speech. The responders also mentioned dissemination of timely and factual information based on concrete data, clear communication and the fact that risk mitigation measures deployed by institutions should be disclosed so as not to allow interpretations and stigmatization to take place. Mainly Italian responders emphasized the role of education and information campaigns for raising awareness.

Responders in Finland reiterated that active and transparent communication is vital in order to reveal root causes for crisis. Authorities should also increase their direct communication with citizens. Nonetheless, dissemination of factual information is often not sufficient; responders would invest in preventive measures such as media and information literacy training. Furthermore, face-to-face interactions should be encouraged between different segments of society. Many reiterated that communication should be factual, transparent, open and active. Information should be backed with good argumentation and by sharing information about the best information sources. Preventive action could include sharing information about harmful phenomena in advance. The responders also highlighted that hate speech is increasingly targeted at authorities. Their work and division of responsibilities should be made more visible.

German responders repeated the need for preventive measures such as raising awareness of discriminatory behavior before crisis and the promotion of alliances between population segments. Estonian participants emphasized the role of officials and official statements condemning hate speech. They also reiterated the idea that the root causes of crises should be made clear.

Activities to thwart hate speech should include:

- awareness raising government campaigns and campaigns on misinformation
- Education and media and information literacy training
- Factual, transparent, open, active communication that emphasises root causes for crises
- Increased attention on targeting and hate speech toward authorities
- Promotion of alliances between population segments

Stigmatization and hate speech as mal-information

In the table top exercises, we asked the participants' how they would manage the phenomena of stigmatization and hate speech in crises. According to BuildERS D1.4 social media can act as a channel for attacking people and pushing them to the margins of society. Crises may lead to hate-speech, insulting, blaming or discrimination against individuals or groups. Such activities are facilitated by social media due to its inherent indirectness and often anonymous use as a communication channel. The risk of becoming a victim of hate speech increases in social media. Furthermore, harmful information is more likely to spread during terrorist attacks and other man-made crises where speculation is rife. False information spreads quickly in social media and it can be difficult

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for emergency management to encounter. Problems of false information are entwined with problems of social trust, social exclusion and discrimination.[45]

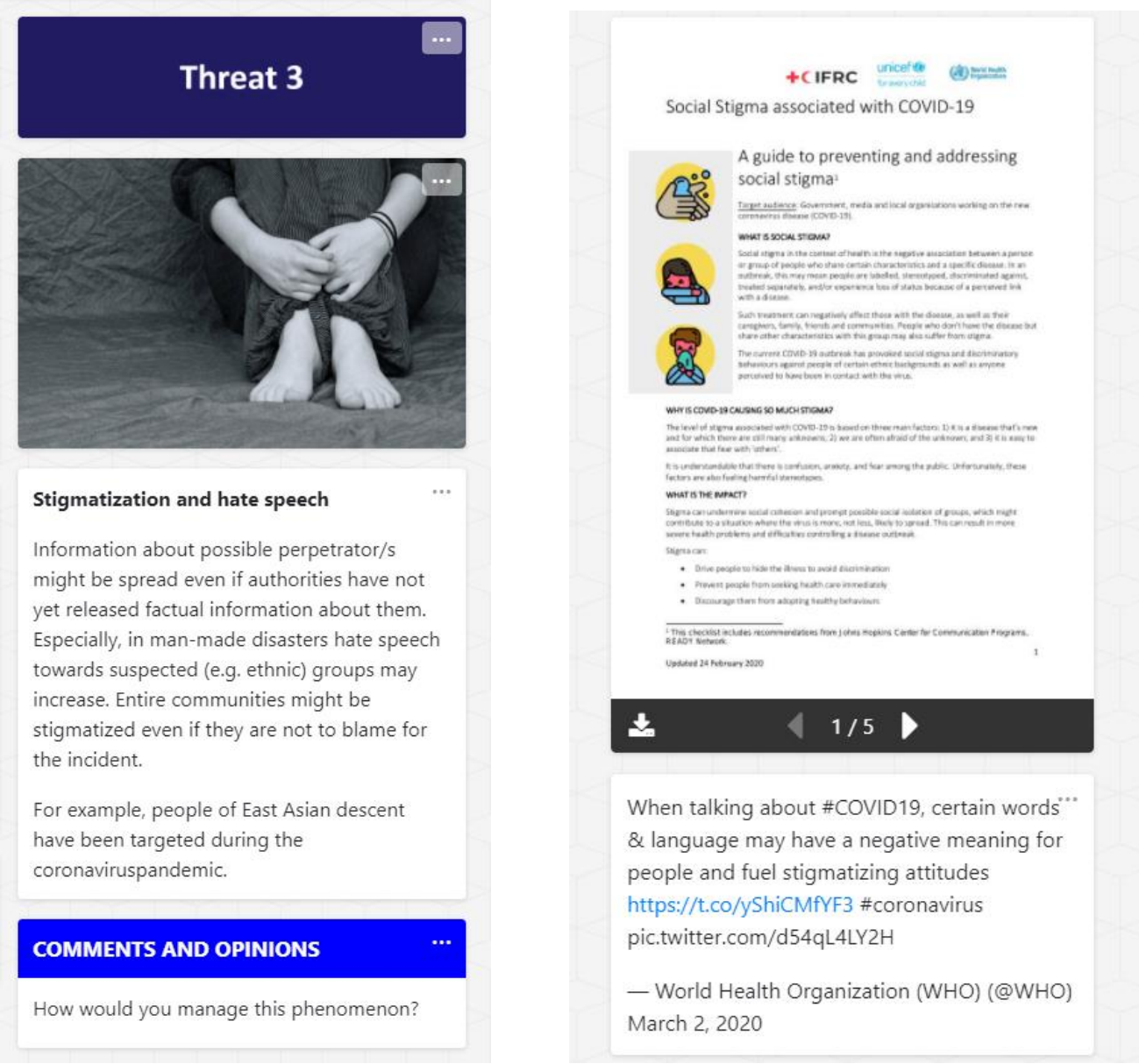

Figure 13. Example of tabletop exercise activity on topic stigmatization and hate speech

Italian responders state that official communication activities should emphasize solidarity during a crisis first and foremost. Action at the state and national level could include awareness raising government campaigns and campaigns on misinformation. Education was the most often mentioned solution to stigmatization and hate speech. The responders also mentioned dissemination of timely

[45] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project

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and factual information based on concrete data, clear communication and the fact that risk mitigation measures deployed by institutions should be disclosed so as not to allow interpretations and stigmatization to take place. Italian responders emphasized the role of education and information campaigns for raising awareness.

Responders in Finland reiterated that active and transparent communication is vital in order to reveal root causes for crisis. Authorities should also increase their direct communication with citizens. Nonetheless, dissemination of factual information is often not sufficient; responders would invest in preventive measures such as media and information literacy training. Furthermore, face-to-face interactions should be encouraged between different segments of society. Many reiterated that communication should be factual, transparent, open and active. Information should be backed with good argumentation and by sharing information about the best information sources. Preventive action could include sharing information about harmful phenomena abroad in advance. The responders also highlighted that hate speech is increasingly targeted at authorities. Their work and division of responsibilities should be made more visible.

German responders repeated the need for preventive measures such as raising awareness of discriminatory behavior before crisis and the promotion of alliances between population segments.

Estonian participants emphasized the role of officials and official statements condemning hate speech. They also reiterated the idea that the root causes of crises should be explained.

Suggested solutions to hate speech:

- Media and information literacy training
- Awareness raising: State and national awareness raising campaigns
- Sharing information on harmful phenomena in advance
- Encouraging interaction between different population segments
- Direct communication between authorities and citizens

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5. Solutions and good practises to tackle false and harmful information in crisis

5.1 Media and information literacy

In the workshops, we discuss media and information literacy (MIL) with the Stakeholder Forum in order to explore existing media and information literacy projects and to innovate targeted media and information literacy projects. We use UNESCO's definition of the term as it has not been defined in BuildERS research. UNESCO states that media and information literacy skills refer to the ability to access, use and contribute content wisely, both online and offline (UNESCO 2021a).

We assert that media and information literacy is believed to increase people's ability to better recognize misinformation. The statement is based on previous BuildERS research in D1.4 and D2.3. D1.4 states that the reviewed literature and case studies suggests that people may become more resilient to crises if they are trained in media and information literacy and information evaluation (D1.4, p. 29). While D2.3. makes the recommendation: "it is not possible to eliminate all unintentional misinformation spread by the officials or by the members of the public. Thus it is adviced to invest in media and information literacy training and information awareness campaigns.[46]

In order to acclimate the Stakeholder to think in an innovative way and share their ideas, we offered information about recent EU activities in the area of media and information literacy and a concrete example of an awareness raising media and information literacy campaign (winner of the Media and information literacy Awards in 2019). We also wanted to share information about what makes media and information literacy training challenging. Therefore, we included instances of technology development and manipulation.

Media and information literacy has been high on the political agenda of the EU for the past years. Media and information literacy is "tested" in times of major crises. The European Commission has carried several actions related to the promotion of media and information literacy, including the launch of the European Media and information literacy Week since 2019. In 2017, the European Commission mapped media and information literacy practices in 28 EU member states. This included identifying of the most significant projects in the member states since January 2010. According to the results, most projects were targeted to teens/older students or professionals (e.g. teachers, care-workers, youth workers and academics). The elderly were the least targeted group in projects: only Flemish region in Belgium, Estonia, Greece, Luxembourg and Spain mentioned media and information literacy projects focused on the elderly among the 20 most significant ones. This would indicate that the elderly are more vulnerable to receiving and sharing misinformation than other groups. (European Commission 2016).

[46] Bäck et al. (2020) D2.3 Social media campaign analysis and governments' responses to disinformation, BuildERS-project, p. 85

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We asked specifically:

- Can you mention media and information literacy projects targeted to parents and the elderly?
- How could media and information literacy be trained to the elderly, considering their different backgrounds?
- Who to collaborate with?
- What tools to use?

As an illustrative material for the workshop participants we showed the WHO guidelines below:

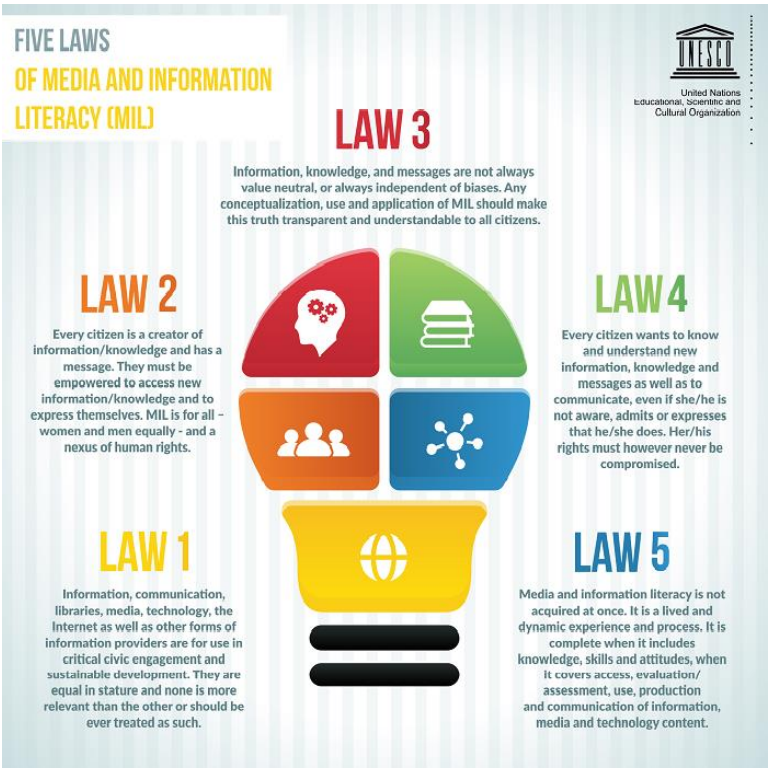

Figure 14. Five laws of media and information literacy (Unesco 2021a)

Workshop participants expected that the elderly are more vulnerable than others to believe and share misinformation. They are not as accustomed to check the validity of messages, as the younger generations. It was also presumed, that the older generations are not as able to navigate among the xenophobic, extremist and in other ways harmful information, as they may not be accustomed to the polarized culture of social media. The elderly were also seen as being at risk of becoming victims of online frauds. Participants mentioned the awareness raising by the police, banks and telecommunication companies as a good practice.

Several good ideas were presented to improve media and information literacy of the elderly population. All layers of social capital: bonding, bridging and linking were mentioned as equally important in building capacities and raising awareness of the various risks present on the internet and social media platforms. As defined in the theoretical framework of BuildERS, bonding social capital refers to relations between individuals, who are similar to each other and emotionally close, like friends and family. Bridging social capital connects individuals with different backgrounds, connects

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communities together and provides social support and assistance. Linking social capital connects individuals with those, who hold positions of power and distribute resources. Bonding and bridging social capital refer to horizontal ties; linking social capital to vertical ties, which connect the hierarchical levels.[47]

Family members and close friends – in other words: the bonding social capital – were seen as the most important trainers of media and information literacy. Conversations and discussions with the younger and more experienced social media users could help in understanding the risks related to social media as an information source. The second layer of social capital bridging capital was also perceived to be important. The responders referred to care takers and service providers specifically.

Similarly, media companies were seen as potential partners; especially those that represent trusted media: TV, radio and print newspapers. Several participants felt that it is a good idea to reach the elderly through the media they normally use for searching information. One interesting idea was to include an information booklet on media and information literacy as part of a credible newspaper or handed on the side as one purchases something media related. This could also include summarized notions from the field. Another workshop participant suggested to provide media and information literacy training in connection to TV shows and thus, arrange it as "edutainment": awareness raising in an entertaining form. Targeted campaigns and/or training courses in those social media platforms, where the elderly are active, were also suggested as good channels to train media and information literacy.

Several workshop participants mentioned public libraries as potential trainers about the safe use of internet and social media for the elderly. Libraries were seen as natural collaborators as they serve people from very different age groups. One participant presumed that the elderly are used to seeking interesting events from the libraries' message boards.

Another idea was to organize media and information literacy -themed public lessons and hold workshops in the retirement homes and senior houses. Some people are also very active themselves, so offering these kinds of lecture series or workshops in local academies and universities might be interesting for some persons. In addition, public figures and social media influencers who are followed by the older generations, were seen as potential trainers of media and information literacy. Training should present the risks they face in their daily life, show real-world examples and provide demonstrations.

Overall, the contents should be tailored in such a way that it triggers their interest. Participants saw that it is important to tailor training to the audience; the "elderly" are not a homogeneous group. It was seen as necessary to try to reach persons, who are confident in their capacity to identify false information and who may, for this reason, accidentally spread it.

[47] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project

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5.2 Risk and crisis communication centres

WP2 of BuildERS studied different institutional contexts and ways of organizing crisis communication. Some countries have a centralized system that share information and/or tackle false information. We introduced the Belgian and Swedish risk and crisis communication centers for the workshop participants and then requested them to share their thoughts about the centralized models. Below are the short descriptions of the models:

Belgian model

At the end of 2013, a network of communicators (Team D5) was set up to assist authorities with the tasks of crisis communication. The members of the Team are volunteers providing support to municipal, provincial and federal level crisis management. For instance, they analyse information, formulate communication advice, and assist in drafting of messages.

The members of Team D5 have a background in communication and emergency planning. Most of them work for a municipality or for the federal governors' offices. They all take a five day specialized training course before joining the Team.

Swedish model

In Sweden, the Swedish Civil Contingencies Agency (MSB) is a central hub for sharing crisis information. Krisinformation.se is a web site/application run by the MSB. Their mission is to compile and convey warnings, alerts, and emergency information from Swedish authorities to the public. The information has been confirmed by the responsible authority or actor. MSB also has a department for tackling misinformation and dealing with malicious information campaigns. For example, it protects the integrity of elections.

The workshop participants had differing opinions on the models, although a majority saw more benefits than drawbacks. Centralized information sharing would help to create cohesion within a society. In todays fragmented media environment, it was seen as important, that there are clear authorized sources of information. Too often officials' information online is scattered, and it is difficult to have a holistic view.

However, it is challenging and takes time to establish an entity or an organisation as a trusted source of information. One respondent said aptly "while conspiracy theories will always exist, a particular effort should be put into developing a communication system that is coherent and supported by scientific evidences (when needed). When there is no crisis to manage, these authorities should also work to strengthen their position (i.e., increase the perceived trust from the population) and inform people before a potential crisis (e.g.: what to do/not to do in a particular situation that could be faced in the near future)."

As a flip side, there is a risk of silencing alternative views in a society; authorities are not necessarily the ones, who know best. Authorities may be too sure of their own situation awareness and not allow citizens to make an informed choice based on their own thinking and reasoning. On the other hand, a national centre may also weaken or even silence local and regional voices. Oftentimes municipal or regional autonomy presupposes that some decision-making power is left to local and regional

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agencies who better know the situation in their area. Although the centralized communication agencies may provide an overall picture of the situation, crisis itself is often resolved locally. The principle of subsidiarity should apply at all times, also in crises. Thus, some participants would rather build the communication capacities of local agencies, and make them more professional. This would not prevent cooperation between the local, regional and national levels, when needed. COVID-19 has not only been a global pandemic, but a crisis on a local and regional level that has tested educational institutions, emergency services, local businesses etc. One participant emphasized that people expect local information to take action in such situations.

The centralised models were estimated to work best in open democracies and societies, where public control and accountability are present. In other types of societies, the centralised models can be mis-used for authoritarian control. Trust towards authorities is at very different levels in various parts of Europe. Centralized models were seen to be well working if there is enough transparency: the information sources are presented openly and citizens are not just passive recipients of information, but engaged in a dialogue and seen as an important resource. It was also seen as important that impartial, neutral and independent civil society organisations and other agencies support centralized systems. One example is the Swedish Red Cross, which provides crisis information and assists the Swedish Civil Contingencies Agency (MSB) and the National Board of Health and Welfare. There are also other agencies supporting MSB, whose primarily work is not related to crisis preparedness, like the Church of Sweden and the Swedish Sports Confederation or Save the Children.

5.3 Social media influencers

The theoretical framework of BuildERS states that digital spontaneous volunteers can contribute to disaster response by providing vital information to the official respondents. They may for instance utilize online platforms and mapping, crowdsourcing data, microblogging, wikis and social media.The report also states that spontaneous volunteers might easily be excluded by disaster managers (involvement/exclusion paradox of spontaneous volunteering).[48]

BuildERS project report[49] of crisis communication (D1.4, 27) states that through social media vulnerable groups may build communities (Zisgen et al 2014, 11; Avvenuti et al. 2018, 58;). The report references the Dresden floods in 2013 where citizens used Facebook to offer or seek help (Sächsische Staatkanzlei 2013, 51). Nonetheless, bottom-up self-organization of unaffiliated volunteers brought along incidences of misinformation that worked against disaster relief (Albris 2017). The report gives an instance where different types of misinformation spread on an online flood map in the Dresden floods run by volunteers[50]. Another BuildERS report[51] further explores how social

[48] Morsut C. et al. (2020). *D1.2 Final report of the unified theoretical framework on the concepts of risk awareness, social capital, vulnerability, resilience and their interdependencies*, BuildERS project.
[49] Hansson et al. (2019). *D1.4 Communication Behaviour in Europe and Vulnerabilities*, BuildERS-project
[50] D1.4 p. 27
[51] Bäck et al. (2020). *D2.3 Social media campaign analysis and governments' responses to disinformation*, BuildERS-project

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media is used in crisis management. It shares how different platforms have been used to coordinate volunteers and for sharing information[52].

We have invited our stakeholders to innovate how the trusted content creators of social media and other internet forums (so called influencers) could be utilized in risk and crisis communication. There are several types of influencers: celebrities, sports stars, life style advocates and other professionals with a strong media presence. They have become strategic partners to businesses and their impact on revenue has been carefully measured. According to research, traditional celebrity endorsers (such as movie stars) have become less important as partners in the product and service marketing, and social media influencers have taken their position. People identify with and trust influencers more than celebrities (Schouten et al. 2019).

One interesting research finding is the differing impact of macro-influencers (with high number of followers in the social media platforms) and micro-influencers (having a relatively small number of followers. According to Kay et al. (2019) consumers exposed to the micro-influencers marketing gain a higher level of product knowledge; micro-influencers are also more relatable as they are peers for their followers. Although this research was related to commercial products, the peer-level micro-influencers in particular would be of help in raising awareness of risks and provide credible information about a crisis. Micro-influencers have been successfully used in awareness raising regarding health information and in the promotion of vaccinations (Bonnevie et al. 2020). BuildERS consortium collected other interesting examples of influencers' power and impact on their followers' opinions.

Indeed, partners provided examples of influencers' actions in crises in different European contexts. The countries (Germany, Estonia, Greece, Sweden and Norway) mainly used COVID-19 as an example case. The influencers, ranging from (social media) celebrities to actors, doctors and bloggers, used their platforms to inform the public of COVID-19 related topics, such as vaccinations and infection prevention, as well as on other crises and issues.

Awareness of issues and facts related to crises were raised, for example, through sharing personal stories. One of the most famous TV presenters in Greece, Fay Skorda, shared that she had been infected with COVID-19 with her million followers on her Instagram channel, and a famous Greek journalist Christina Lampiri shared her experience of surviving her house burning down during the deathly wildfires in Mati in Attika in 2018. Similarly, in Norway, a doctor and social media active Wasim Zahid shared his story on getting a COVID-19 infection on his YouTube channel with 65 800 followers. In Sweden, lifestyle influencer Angelica Blick interviewed her friend about his personal experience of getting a COVID-19 infection and later posted the video on her blog. In Estonia, two well-known actors got themselves vaccinated on television, and a Youtuber Andre Zevakin (with 166 000 followers mainly consisting of youths) used his platform to publicly apologize for having thrown a party during the pandemic.

In the example cases, influencers also used their platforms to spread factual information about COVID-19 as well as to debunk false information related to the issue. In Germany, scientifically oriented social media influencer Mai Thi Nguyen-Kim with 1,24 million subscribers has used her platform to explaine the meaning, scope and lifecycle of a pandemic as well as to elaborate on testing and vaccinations, and in Estonia, a medical student and a social media personlity Oreo.kypsis who

[52] Bäck et al. (2020). *D2.3 Social media campaign analysis and governments' responses to disinformation*, BuildERS-project

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uses the youth-oriented social media platform TikTok, regularly shares tips on corona prevention and debunks myths related to to the decease.

Furthermore, social media influencers have been active in working together with public organizations in raising awareness on different topics. In Estonia, journalist Neeme Raud worked with the Estonian Ministry of Education and Science in carrying out a campaign about media and information literacy; in Sweden, lifestyle influencer Angelica Blick interviewed the Swedish Minister for Social Security about COVID-19 and encouraged her followers to send in questions before the interview. Also the famous Swedish comedian Filip Dikmens was involved in COVID-19 awareness raising campaigns. In many of the example countries, social media influencers were also quoted in traditional media and news in different occasions.

Social media is also used by local communities and famous people in organizing help during crises. In Germany, the local community coordinated their civilian relief efforts through Facebook during the Elbe flood of 2013 in Dresden; in Greece, during the wildfires in 2018 singer Sakis Rouvas used his Instagram account with 900 000 followers to inform of the needs of local health authorities and first responders for people who could donate blood; and in Norway community leaders use their platform to promote humanitarian work, as for example humanitarian Mads Gilbert has done in the context of promoting his work in Palestine.

Next, we will present our stakeholders' views on the significance and potential of influencers. We will also show, what kind of benefits and risks our stakeholders saw within collaboration with influencers. We will then take the stakeholders' opinions further by elaborating some preliminary recommendations for managing influencers' volunteer action. Related to the recommendations we will provide examples of practical level solutions (working methods and processes) to organize volunteer action.

During the COVID-19 pandemic, social media influencers have been used as part of official crisis management to communicate factual information about coronavirus and how to avoid infection. We showed some examples to the participants and requested them to share their views of their potential and related risks. In principle, both the exercise and workshop participants had contradictory opinions about the role of (social media) influencers in increasing risk awareness and sharing information about crises. Even if authorities and other responsible crisis management agencies would not collaborate with influencers, their tremendous impact for the crisis management should not be ignored. Exercise participants considered social media influencers as a double-edged sword. They can be of great help, if they act responsibly, but may cause tremendous damage, if they do not.

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Figure 15. Inspirational material for the exercise participants (social media influencers)

Many experts in crisis communication saw that due to their popularity, influencers have the potential to reach out wide audiences, and especially those individuals, who do not necessarily follow "traditional" media. For example, the youth who regularly follow certain video bloggers, could be reached via these influencers. Some saw that it is better that the correct information is shared via influencers, if the alternative is that certain individuals are never reached by the authorities. One expert stated that the coronavirus pandemic is the first big crisis of the social media age and the influencers are all of a sudden very important mediators for correct information.

Especially before the crisis, they could be of help in focusing attention to preparedness issues and act as "ambassadors" of self-preparedness. One expert from the Red Cross mentioned an example of movie star, whose personal voice helped to increase knowledge and raise funding for their initiatives. A representative from an association of rescue services applauded a webinar by government actors targeted at social media influencers at the start of the coronavirus pandemic and stated that similar educational material is called for.

Influencers could also support authorities in gaining acceptance of the restrictions and changing the unwanted behaviour, attitudes and values of masses in crises – like keeping the distance and refraining from socializing in the case of the protracted pandemic. Influencers could for example share infographics and other awareness raising material provided by the authorities and other responsible agencies. They could also share their personal experiences and every-day examples of the impacts of crises. With their face and voice, they could provide a necessary push to the right direction.

Influencers had been utilized in practice and the participants gave some examples. The Estonian Rescue Board reached out to influencers when the first wave of COVID-19 pandemic hit the country. The Rescue Board asked influencers to help them to save lives by asking them to encourage their followers to stay home. According to the workshop participant the responses to this initiative were positive. In Finland there was a government campaign to engage social media influencers in sharing credible information about the pandemic.[53] One participant mentioned a young doctor, who encourages discussion, answers questions and shares health information on Instagram. She has a

[53] This campaign was also presented and given as a "stimulus" for brainstorming for the workshop participants.

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following of tens of thousands of people. During COVID-19 she has answered to concerned questions regarding vaccinations and other coronavirus related questions and provided studies and links to the sources she relies on. This particular influencer has credibility due to her occupation and source sharing. It was seen as important that the influencer stresses when something is her/his own opinion.

However, workshop participants also listed a number of risks and flip sides related to the collaboration with influencers. The workshop participants were requested to answer to a poll on the harmfulness of (social media) influencers as crisis information providers. Workshop participants received some examples of both responsibly and irresponsibly working influencers. The responses were divided in all three questions, i.e., whether the influencers are a) harmful for crisis response, b) difficult to manage and c) increase their volume in the future (see 18)

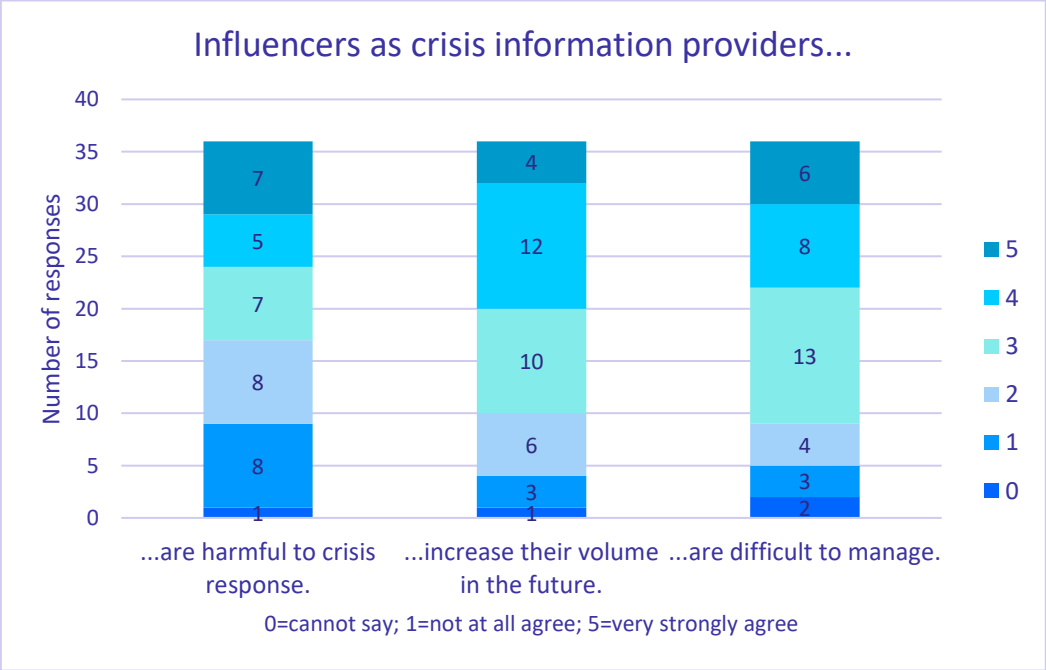

Figure 16. Poll on the harmfulness and increase of social media influencers

One of the challenges identified, was the lack of control. Majority of workshop participants saw that the influencers' information sharing is rather difficult to manage. However, opinions were divided in terms of how harmful they are to crisis response. Nonetheless, a majority of respondents estimated that they will increase their volume – and thus, importance as information providers - in the future.

Most of the influencers are entrepreneurs and carefully design their personal brands. Experts were also concerned of their motives: besides commercial motives, they could have other self-serving motivations. Influencers depend on the attention and aim to affirm themselves. This might result in the spread of inappropriate information. Their political opinions and positions on other issues than preparedness may be problematic for their collaborative partners. One expert noticed that especially in cases where there are conflicting information and/or the issue is politicised, influencers have a great impact on their followers. Influencers may support taking sides and encourage the expression of opposing opinions. If people lose confidence in influencer, the collaborative authorities and other agencies who aim to remain neutral in the issue, may also suffer in terms of credibility.

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Some exercise participants saw that authorities should not have to rely on influencers in crisis situations and alluded that citizens should instead be directed toward the authorities own social media channels. Others mentioned that influencers should mark clearly, which information originates from trusted sources. Influencers should adhere to a charter of good practices and values, a kind of moral contract to which he or she commits. This would not mean restricting their freedom of expression but aim to guarantee that their contribution will help authority communication and not the other way around. Influencers should receive a specific task or mandate with specifications and be properly trained for a period of time.

5.4 Means to tackle publicity oriented behaviour

As the smart phones have become popular among the general public, anyone can record crisis situations and accident sites and share the footage online and in social media. This is encouraged by the "traditional" media, which collaborates with readers to update its news in a fast pace. Sometimes spectators of crisis and disasters risk their personal safety in order to record events. Majority of the exercise and workshop participants were critical towards this kind of publicity-oriented behaviour during crises. Journalists were seen as being bad examples for the public: there have been cases where reporters have almost been blown away in severe storms and or had water up to their chests in floods.

One communication expert compared risky behaviour in crisis to a situation when children are playing with ammunition in war zones. We should educate people about the risks and raise awareness about the breaches of privacy regarding the victims and survivors of crises. One workshop participant stated aptly, that the technological opportunities have been available for us for only a short time and we have not yet learned to manage our skills and capacities responsibly.

Yet, the situation is not black and white. Experts mentioned cases, when pictures and videos taken by the public have been of assistance to the crisis managers and first responders. The pictures and videos may have shown the breadth of the disaster area or indicated how severe the wounds of the victims are. The latter assist in planning the triage: sorting in the emergency room. For law enforcement, pictures and videos may help in crime investigation or help track the suspected perpetrator. And yet, there have been situations, where people have been focused on filming instead of helping during rescue operations. One workshop participant suggested, that rather than campaigning against, we should highlight the benefits and educate to act in a responsible and ethically sound manner.

The problem itself was believed to increase while the role of authorities was stressed in its management. Exercise participants stated that the issue should be highlighted in different channels and suggested storifying as a method for a public campaign.[54] In the workshops we explored this suggestion further and requested the participants to innovate a campaign, which would use narrative methods. Workshop participants suggested to use real life events as examples of consequences. For example, the ones who have been burnt or otherwise injured in the incident could be requested to share their stories. People should talk about concrete cases, explain what went wrong and try to

[54] Jukarainen P. et al. (2020). *D6.2 Report on stakeholders' views of risk awareness, social capital and vulnerabilities,* BuildERS-project

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influence the emotions of their audience. These kinds of life stories could then be shared on social media platforms. We should try to make people understand how sharing photos and videos can hurt people and their privacy, and how they can also make the work of public agencies more difficult.

Participants also called for more responsibility in the media; online press and other media should be controlled more tightly. One participant saw that if the media requests photos and videos, it should always pay for the material it publishes for the benefit of its own business. The reasoning was that “once the obligation to pay and acknowledge the source is present, it would not take long before the process becomes more selective and the 'producers' start to make claims regarding their material”. On the other hand, this kind of compensation was seen as containing risks: it is also possible that it would just encourage people to send their materials to media corporations, hoping for good rewards.

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6. Ideas for innovations and preliminary recommendations

BuildERS project aims at more inclusive crisis management, which means a "whole of society" approach: everyone should take part in preparedness. To support this objective, we innovated three types of process innovations:

1. Increasing collective risk awareness and strengthening individuals' risk perception with the help of volunteering (social media) influencers
2. Improving the accessibility of credible and trustworthy information on how to prepare for crisis and be safe during an acute crisis (with plain language and augmentative and alternative communication, AAC)
3. Increasing the outreach of media and information literacy education in societies

6.1 Improving risk awareness: Collaboration with the social media volunteers

Our first innovation potential is related to the increasing of collective risk awareness and strengthening individuals' risk perception with the help of volunteering (social media) influencers. As the previous examples of social media influencers' initiatives show, there is a lot of potential in their collaboration with the crisis management officials and other agencies responsible for preparedness, crisis response and recovery. The variety of different types of influencers with different scales of audiences makes their potential even stronger. Influencers could help to manage the information overflow and conflicting messages by sharing verified information for their followers. They could also narrate information and share it in an entertaining way (thus providing infotainment or edutainment). This way, even the serious facts would be better listened.

Influencers may serve as advocates for risk awareness, promote preparedness actions and safety measures. Furthermore, they could raise funding for the crisis relief and rally for volunteering initiatives – transboundary social media and internet platforms allow to do this even on a global scale. Especially in fundraising and organising additional resources these specialists in digital marketing could be of great support for the crisis response. First responders resources cannot meet the needs in prolonged crises or when the impacted areas are large.

According to research, the so-called micro-influencers with a smaller number of deeply engaged followers are seen as the most potential opinion leaders. They are experts in their niche and much more authentic than the most popular "self-brands" on the social media platforms and internet forums. They have time to discuss with their followers and build dialogic relationships. Therefore, we could presume that micro-influencers could potentially even have an impact on individuals' risk perceptions. They are often present online due to a particular expertise or specific lifestyle and therefore can have followers, who are "at the margins of society" themselves. Influencers are also very good storytellers, they touch our emotions, tell about their everyday lives and share their experiences in an entertaining way. All this would make them powerful in convincing individuals of affecting risk perception. Micro-

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influencers could share their experiences of doing their daily chores during (an earlier) crisis, tell narratives of being (once) a victim or survivor or providing support for others. In other words, they would be the bonding social capital of the individuals in a vulnerable situation.

Innovation potential and further co-creation

- The collaborative initiatives with influencers should be designed and piloted

Recommendations:

- Social media influencer are a heterogeneous group; thus, different types of influencers should be engaged in risk and crisis communication campaigns

Potential stakeholders in co-creation in the next stages:

- Specialists in influencer marketing and social media influencers

6.2 Making credible and trustworthy information more accessible

In order to explore communication related accessibility further we asked our partners to name instances where either plain language or easy-to-read language was use in their country contexts:

In Estonia, there have been at least three campaigns to promote plain language:

- Estonian Language Institute's campaign "Notice Bureautic Jargon"
- Ministry of Education and Science, Estonian Language Institute, European Commission and Association of Estonian Language Editors' campaign "Clear Message"
- and Estonian Association of the Hearing-Impaired's campaign "Clear speaker"

all of which aim at promoting plain language through different means, such as giving out awards in different categories as the "Clear message" campaign does.
In Germany, the Ministry for Social Affairs and Integration in Baden-Württemberg and the Task Force for Plain Language provide information about COVID-19 in plain language.

In Norway, national online health services have a platform in which health information is available in plain language. In Sweden, Krisinformation.se communicates important crisis information in different languages from Swedish authorities to the general public. One of those languages is easy to-read language (lättspråk).

In Finland, visitations to easy-to-read content has increased greatly during COVID-19. THL (the Finnish Institute for Health and Welfare) site had 50 000 visitors on its easy-to-read site relaying information about the pandemic. Likewise, visitations to the easy-to-read newspaper doubled during the pandemic (Selkokeskus).

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BuildERS aims to decrease vulnerability and increase resilience focusing on the most vulnerable. It aims to increase individual capacity to manage risk and overcome adversity; it pays attention to the methods, tools and capacities in the community, in the official response system and in the unofficial response system. Communication related vulnerability may push individuals into the margins. Communication (and the ability to utilise social media) create social capital; it can promote a sense of belonging, help maintain relationships, help individuals feel connected to others, gain independence and make it easier to receive help from others (Caron & Light 2016).

As stated in BuildERS D1.4 social media can offer marginalised groups a community. With accessible digital platforms that offer clear and concise information in all necessary languages, we can also increase risk awareness and trust in authorities. Furthermore, the stakeholders highlighted in the discussion about misinformation in crises (Chapter 4.1) that people who experience that information or messages are not directed at them in a language they can understand are most affected by conflicting messages. Furthermore, there were many examples given of how information overflow confuses people and can even effect trust in media and authorities. BuildERS should find ways to better reach those who are not easy to reach and offer them what they need in terms of communication). With accessible communication, we can reach most individuals whose circumstances may change drastically in their lifetime changing their communicational needs and capacities. By offering accessible information and communication means, we build resilience and increase the capacity to maintain their standing in the society without fear of being marginalised.

Innovation potential and further co-creation

- Tools and emerging technologies for first responder organisation that acknowledge different types of communicational needs and build individual capacity (e.g. applications that translate into ACC languages or methods to subscribe risk and crisis information in different forms: voice, pictures etc.)
- Education for crisis management organisations on the use of plain language, easy-to-read language, sign language and Augmented and Alternative Communication
- Cooperation processes with plain and easy-to-read language advocate groups or organisations

Recommendations:

- Plain language and easy-to-read language should be a permanent tool in authorities' communication toolkit also beyond digital platforms.
- Resources should be allocated for incorporating plain language into crisis management and in government agencies in an encompassing, holistic way.

Potential stakeholders in co-creation in the next stages:

- Plain language advocacy groups such as Plain Language Association International, the Finnish "Selkokeskus", the Swedish "Myndigheten för tillgängliga medier", Dutch "Eenvoudig communiceren" and the German "Netzwerk Leichte Sprache" and other similar entities.

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6.3 Increasing the outreach of media and information literacy education in societies

European population is aging fast due to the decline of birth rates and the raised life expectancy. On the other hand, many of the elderly are in good health and very active. Many have also begun to use digital services and social media platforms to connect with their loved ones. This means, that they need to understand the risks related to digital environments, including the false and harmful content. Yet, unfortunately, majority of the media and information literacy campaigns and trainings have not, however, been targeted to the older generations. Furthermore, the elderly are not a homogeneous group. There are multiple reasons, why individuals may become vulnerable to false and harmful information. Therefore, it is essential to study both their needs and motivation factors, in order to organize efficient awareness raising campaigns and education.

Our stakeholders suggested several interesting ideas, which we can elaborate further in the BuilDERS project. Basically all layers of social capital should be used as a resource: bonding (families and friends), bridging (neigbourhoods, clubs, volunteer action, NGOs, social media influencers, public figures in the media) and linking (e.g. media companies, public libraries, police, banks, telecommunication companies). However, our stakeholders saw the family members, friends and peers as the most important trainers of media and information literacy. In addition those media companies that the older generations trust the most, were seen as important sources in providing information about the risks related to internet and social media platforms.

Innovation potential and further co-creation

- We will continue the co-creation with the intermediaries of various stakeholders, who work with the elderly populations.
- We will search for innovative means and methods to build risk awareness of the elderly as a collective, and what is most important the risk perceptions of the individuals, with their unique life situations.

Recommendations:

- The elderly are not a homogenous group: thus media and information literacy training and awareness campaigns should be tailored to meet their various needs
- Media and information literacy training should be "edutainment": different motivation factors should be considered when designing the methods and means

Potential stakeholders in co-creation in the next stages:

- National broadcasting companies, the most trusted national and local newspapers, radio broadcasting companies
- Representatives of public libraries
- Social media influencers, who are popular among the elderly

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Path mode

Welcome to the BuildERS project's misinformation and crisis communication workshop!

In the spring of 2020, we organised four tabletop exercises on crisis communication in Finland, Estonia, Germany, and Italy. We engaged stakeholders from rescue services, law enforcement, non-profit organizations, policy makers, media and other agencies. Together with the participants we went through different crisis scenarios and brainstormed how to communicate better.

We would now like to continue the discussion with you. In this workshop, we will

- share with you some of the results from the previous workshops
- ask you to share your experiences on four types of phenomena that have been related to the propagation of misinformation
- ask you to evaluate some current challenges that are related to the current information landscape
- give you some additional information and engage you in a deeper discussion on these challenges
- ask you to share your opinion on the different institutional responses to misinformation

We have based this current workshop on the responses and insights made in the first round of workshops. They also draw from previous BuildERS research.

You may not be an expert in all of the themes, but you will surely have something to say to all of them. Share your experiences with us!

This is an interactive workshop. Our sincere hope is that you respond based on your own experience and comment or contribute to the responses of others. You can come back and view other's responses later in the week.

Remember: you may remain anonymous if you like by editing your profile in the top-right corner. This exercise will take roughly 45 minutes of your time. You may proceed by pressing the “next”-button on the bottom of page.

Warm thanks of your time!

Terminology

(BuildERS Glossary)

Misinformation & Disinformation

Misinformation means confusing, false or misleading information, without the intent to mislead. **Disinformation** is deliberately misleading information.

Crisis

Period of upheaval and collective stress, disturbing everyday patterns and threatening core values and structures of a social system in unexpected, often unconceivable, ways.

Crisis communication

Crisis communication includes the collection and processing of information for crisis team decision making along with the creation and dissemination of crisis messages to people outside of the team.

Crisis management

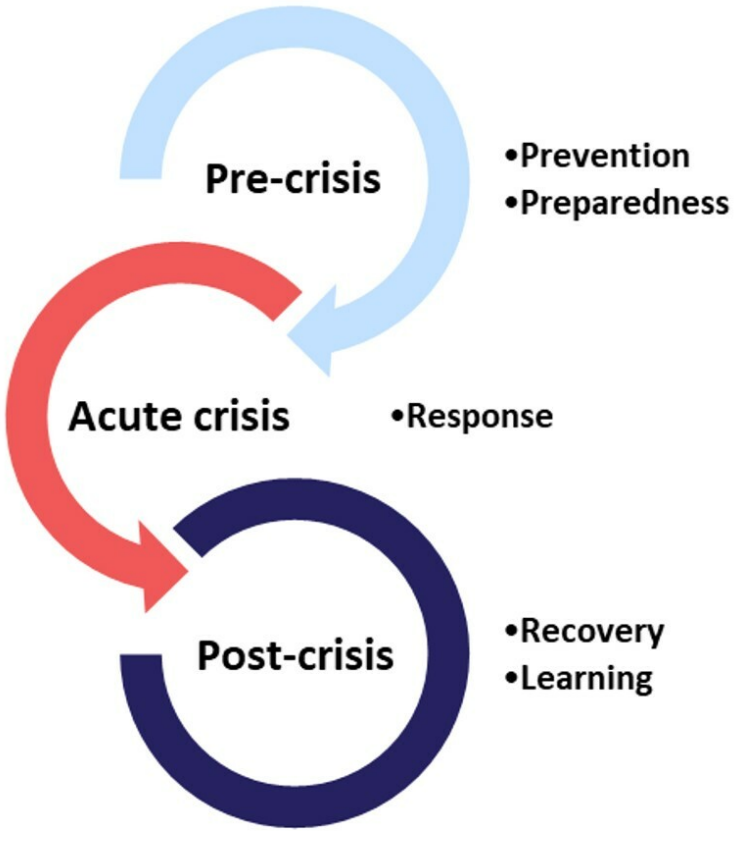
Crisis management is the shorthand phrase for management practices concerning non-routine phenomena and developments.

The crises management cycle

BuildERS project explores communication in all, often overlapping phases of the crisis:

- **Before crisis:** actions taken to prevent the cause, impact, and consequences of disasters, and preparing for the management of events that could not be prevented
- **During the acute crisis:** activities put in place when the crises or the disaster occur to save lives, reduce impacts and consequences (response).
- **After the crisis:** activities aimed at restoring, reconstructing and improving the livelihoods of affected people by implementing risk reduction measures and by learning from the past events.

(BuildERS report D1.2)



The workshop will tie the phenomena explored to the different phases of the cycle.

Let's begin!

Findings from the previous BuildERS tabletop exercises

In the previous tabletop exercises participants mentioned multiple factors that make officials' crisis communication difficult.

High demand for timely and accurate information soon after crisis emerges. Both the news media and the general population want information and guidance even in cases, when the situation picture is blurred or contradictory. Then rumors can breed and people may try to find answers themselves.

Officials should manage several communication channels simultaneously and modify their messages to different groups. Social media and the digital news platforms have become a central information channel for many people. Yet, in some countries official crisis managers are not present or active online. Sometimes there is confusion of the correct communication channel; people may call the emergency number to receive information. Crisis communication should always be targeted to different audiences; otherwise messages may remain unclear or irrelevant to many people. Some participants mentioned that information doesn't always effectively transmit between different operational levels within crisis management. This can also complicate communications.

Some people are hard to reach. It can also be hard to convince people to act responsibly when they have already made up their mind about an issue. Sometimes the overabundance of information available makes it harder to communicate about a crisis. Some people turn away from all information when they feel overwhelmed. Overall, it is difficult to maintain trust, avoid fear-mongering while underlining people’s responsibility to act according to guidelines and while helping them maintain a realistic situation picture of existing threats. Perhaps the most difficult group to reach are people, who create and share conspiracy theories and lack trust towards the official crisis management.

Politicization of crisis communication. Participants brought up the fact that party politics can further confuse the information landscape. Even the scientific experts may express politically motivated opinions on crises and share only partial information. Citizens might find it hard to decide, what to believe.

QUICKLY UPDATING INFORMATION

CONFLICTING MESSAGES

In a fast developing crisis situation, things may change quickly making earlier information obsolete. It may be hard to know which advice is correct and which recommendation should be followed. For example, during the COVID-19 pandemic, medical research has been published exponentially, so guidelines can refer to outdated knowledge. People may be sharing old information unintentionally.

Share your experiences!

Have you noticed spreading of outdated information? How did you find out that outdated information was spreading? Who were most affected by this misinformation; did it cause harm to people or property? *You may share either your professional or personal experiences.*

What were the "lessons learned" from this particular case?

C Add links/photos/videos of examples! Copy the weblink here or add your own photo/video by

Photo/Video Publish

In some situations, it may be hard to decide what to believe as there are several competing views. For example, the COVID-19 pandemic has brought many unknowns, and differing views expressed by experts in different positions. Also, different countries have put emphasis on different actions to slow or stop the virus from spreading, which may confuse people if they start comparing guidelines and their political motivations.

Share your experiences!

Have you encountered conflicting messages in other crisis situations? Who were most affected by the mixed messages? Do you know how this challenge was handled?

What were the "lessons learned" from this particular case?

C Add links/photos/videos of examples! Copy the weblink here or add your own photo/video by

Photo/Video Publish

Media and Information Literacy

Media literacy skills are believed to help people better discern and understand messages and news stories and distinguish true messages from false ones. However, according to some researchers, media criticality can be too excessive: a person may become distrustful of any official information and start questioning mainstream views. Media criticality may even feed conspiracy theories and lead to search alternative sources of information.

CONSPIRACY THEORY:

- gives simple answers to complex issues
- helps to process feelings
- gives somebody to blame in traumatic events
- confirms one's beliefs
- tempts to solve mysteries

Estimate the challenge!

Influencers

An influencer is someone who has the power to affect decisions due to their popularity, authority, or knowledge. Their following may be based on their life styles and interests and their influence comes from the relationship that they have with their audience. (Influencer MarketingHub). However, not all influencers act responsibly and check or share verified information (BuildERS report D6.2).

INFLUENCERS:

- wrap up information with entertainment (*edutainment*)
- usually entrepreneurs, dependent on advertising revenue
- can have specific audiences who don't follow official information sources
- some collaborate with officials in information sharing
- some provoke followers into risk taking and into sharing false information

Estimate the challenge!

Estimate the following claims in the scale from 0 to 5.
(0=cannot say; 1=not at all agree; 5=very strongly agree)

Excessive media criticality feeding conspiracy theories of crises...

...is harmful to crisis response.

0 1 2 3 4 5

...increases in the future.

0 1 2 3 4 5

...is difficult to manage.

0 1 2 3 4 5

Submit

Estimate the following claims in the scale from 0 to 5.
(0=cannot say; 1=not at all agree; 5=very strongly agree)

Influencers as crisis information providers...

...are harmful to crisis response.

0 1 2 3 4 5

...increase their volume in the future.

0 1 2 3 4 5

...are difficult to manage.

0 1 2 3 4 5

Submit

Publicity-Oriented Behaviour

Disasters can attract spectators, who hinder rescue operations. They may take pictures and videos from accidents and publish these in the social media. Media can also request eyewitness information from the general public.

Information about victims (names and pictures) are often spread in traditional and social media before authorities have had a chance to contact family members. Eye witnesses, survivors and people in shock are also in need of protection from unwanted publicity.

Estimate the challenge!

Estimate the following claims in the scale from 0 to 5.
(0=cannot say; 1=not at all agree; 5=very strongly agree)

Publishing pictures and videos showing the crisis victims...

...is harmful to crisis response.

0 1 2 3 4 5

...increases in the future.

Online Crowdsourcing

Online crowdsourcing refers to methods of obtaining information from a group of people or the general population via internet, social media, or smartphone applications. Internet and social media users may assist first responders and humanitarian organisations in mapping the impact of crisis. Online crowdsourcing may not get information from people in the most vulnerable groups as they may not have access or skills to use digital devices.

Crowdsourcing in crises:

- may engage all people or just a group of trusted individuals (e.g. selected professionals)
- may utilise automatically collected data, e.g. pick up location data
- may produce information on events and incidents from the field; this information may be identified with the help of hashtags referring to that event or incident (especially Twitter is used for this kind of purposes)
- may be used for collecting opinions, attitudes, and sentiments or mapping everyday practices, such as following safety measures

Estimate the challenge!

0 1 2 3 4 5

...is difficult to manage.

0 1 2 3 4 5

✔ Submit

Estimate the following claims in the scale from 0 to 5.
(0=cannot say; 1=not at all agree; 5=very strongly agree)

Online crowdsourcing data in crises...

...improves the reliability of the situation assessment.

0 1 2 3 4 5

...will be increasingly used in the future.

0 1 2 3 4 5

...is difficult to incorporate into crisis management.

0 1 2 3 4 5

✔ Submit

Pre-Crisis: Prevention

Media and information literacy

Media and information literacy (MIL) is believed to increase people's ability to better recognize misinformation (UNESCO). Nonetheless, the information landscape has changed rapidly (Hyvönen 2018). We place media and information literacy to the pre-crisis phase; our hypothesis is that it can help mitigate the effects of misinformation during and after a crisis.

We will explain some of the technological aspects that further complicate media landscape and give you an example of MIL training for youth. What about the media and information literacy skills of the elderly? We invite you to innovate new methods.

In the previous tabletop exercises, participants emphasized the need to train media literacy and empathy in order to prevent hate speech and stigmatization of certain groups in crises (e.g. blaming the crisis on certain population segments). Technology development makes this training more challenging as it is more and more difficult to differentiate between true and false media content. It is also very common to present real images and videos or parts of them out of the context. It is not always clear what the intentions are behind these fakes.

Deepfakes are audiovisual manipulations which are done by sophisticated AI technology and machine learning (e.g. Recurrent Neural Network (RNN)). However, new tools are requiring less expertise and enable everyone to create also deepfakes. They can be very convincing!

Cheap fakes are less sophisticated manipulation audiovisual contents and need less expertise to produce.

Shallow fakes are already widespread. They are real images and videos, but taken out of context.

Inspiration

Video source:
https://vimeo.com/325426652

Media Mashup is one winner of European Media Literacy Awards 2019. It is a Belgian interactive film project which purpose is to raise awareness about propaganda in an active and creative way. Youngsters aged 12-18 use the Mashup table that transforms editing into a collaborative process. They make their own film thinking about what they would like to change in their environment and how they could translate their ideas into positive messages. (European Media Literacy Awards 2019)

More about the project:
https://professionals.jeugdfilm.be/nl/meer-dan-film/workshop/media-mashup
(text is in Dutch)

UNESCO's definition of media and information literacy

Media literacy is often used as an umbrella term for different kinds of literacies. However, UNESCO uses the term media and information literacy (MIL).

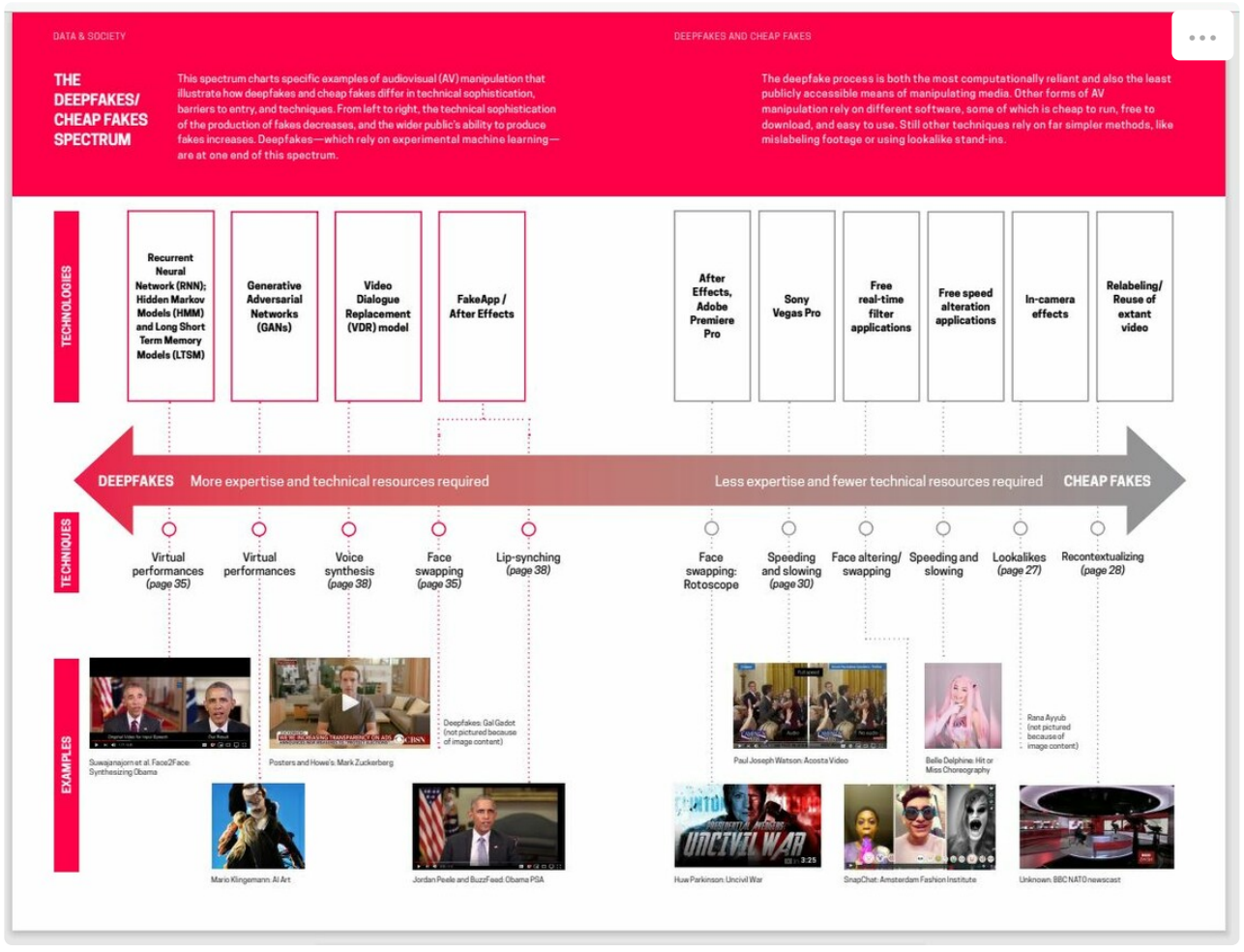


Photo source: Paris B. & Donovan J (2018) Deepfakes and Cheap fakes. Data & Society, datasociety.net

EU point of view

Media and information literacy has been high on the political agenda of the EU for the past years. Media literacy is "tested" in times of major crises. The European Commission has carried several actions related to the promotion of media literacy, including the launch of the European Media Literacy Week since 2019. In 2017, the European Commission mapped media literacy practices in 28 EU member states. This included identifying of the most significant projects in the member states since January 2010.

According to the results, most projects were targeted to teens/older students or professionals (e.g. teachers, care-workers, youth workers and academics). The elderly were the least targeted group in projects: only Flemish region in Belgium, Estonia, Greece, Luxembourg and Spain mentioned media literacy projects focused on the elderly among the 20 most significant ones. This would indicate that the elderly are more vulnerable to receiving and sharing misinformation than other groups.

Share your experiences!

Can you mention media literacy projects targeted to parents and the elderly?

C Add links/photos/videos of examples! Copy the weblink here or add your own photo/video by clicking the camera icon.

Photo/Video Publish

UNESCO states that media and information literacy skills (MIL) refer to the ability to access, search, critically assess, use and contribute content wisely, both online and offline (UNESCO).

Image source: http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/Events/mil_five_laws_english.png

Innovate!

Like all age categories, the elderly are not homogeneous, but represent different income, educational, ethnic backgrounds and physical conditions. All of these factors can contribute to their ability to handle misinformation.

How could media literacy be trained to the elderly considering their different backgrounds? Who to collaborate with? What tools to use?

C Please, share your ideas and comment at least one other suggestion! (use Reply

Photo/Video Publish

Pre-Crisis: Preparedness

Influencers

Social media is a significant part of the new media landscape including social media influencers.

Some countries have used influencers in their crisis response to share factual information about COVID-19. In this section, we will discuss their role in crisis management. We place them at the pre-crisis phase because we hypothesize that they could be used to educate their audiences before crisis. How would you utilize them?

In the previous tabletop exercises, participants viewed social media influencers as a double-edged sword. On the one hand, they can be of great help when they are responsible and share verified information. With their help, messages can be targeted to their specific audiences. Participants highlighted that influencers should cooperate with official crisis managers and refer their audiences to official crisis information channels. Moreover, it should be clearly stated if information comes from authorities. On the other hand, influencers can pose a risk as their motivations may be biased. Some participants felt that influencers should not be used and citizens should be directed to government social media channels instead.

Case example of successful cooperation between social media influencers and authorities: PING Helsinki made a project with the Finnish government and a network of media companies called Mediapooli in order to make sure that correct information about COVID-19 reaches every citizen. The idea of the #faktaakoronasta project was to give current information about the virus to influencers, so that they could share it to their followers. **Read more about the project in the slide show!**

Difficulties related to crisis communication

Previous respondents brought up that information overflow poses a major difficulty in crisis situations. It can sometime lead to a refusal to accept new information altogether. The general public and media crave information and sometimes it is hard to respond to their demand in a timely manner. Furthermore, the information is not always tailored to the needs of different groups. Crisis managers are worried about how to remain trustworthy in fast moving situations.

1 / 10

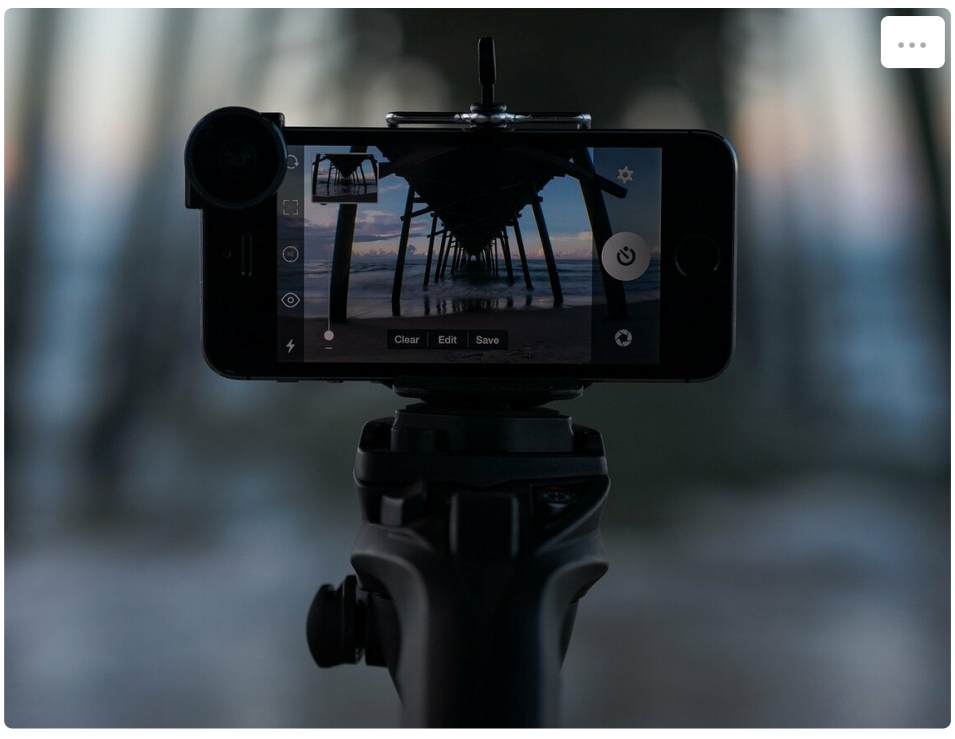
Examples of social media influence

Kylie Jenner, American social media influencer with 198 million followers, posted on Instagram a photo of herself with the text: "but are you registered to vote? click the link in my bio.. let's make a plan to vote together" (graziamagazine.com)

>> **Impact**: Apparently, this led to 48,000 people going through Jenner's Instagram to register to vote within the following 24 hours.

Zoe Fuimaono, New Zealand social media influencer with 62,000 followers, posted on Instagram a story related to the coronavirus testing stating "Guys, you do not have to get tested if you do not want to!" (nzherald.co.nz)

>> **Impact**: The post received much media coverage and concern over the effects of misinformation on people's behaviour.



Share your thoughts!

What do you think about integrating influencers as part of crisis communication? How and in which crisis situations should they be used? Have authorities cooperated with them in your country?

C Please, share your ideas and comment at least one other suggestion! (use Reply button)

Photo/Video Publish

Acute Crisis: Response

In the previous tabletop exercises, participants disapproved media's eagerness to request photos and videos from crises. However, according to one tabletop exercise participant, it is difficult to erase completely as people's willingness to share information online is emblematic of our times.

Participants suggested to create public campaigns to raise awareness and use storytelling as a method. In addition, experts and officials should be obligated to lead by example; for instance, adhere to safety measures themselves. Private behaviour online and offline should be in line with the official recommendations and orders, too. Consistency is important!

Publicity-oriented behaviour

We believe that publicity-oriented behavior usually takes place at the response phase. Nonetheless, in this section we ask you discuss and innovate how better to mitigate the effects of publicity-oriented behavior referring to preparedness.

Publicity-oriented behaviour, which threatens personal and public safety

People increasingly share photos and videos from dangerous situations. They can even put themselves in harm's way like taking a selfie from storm areas, near forest fires and in collapsed infrastructure (BuildERS Research).

Publicity-oriented behaviour may even be competitive. Especially the young (adults) have taken part in social media “challenges”, where something dangerous is documented.

Discuss!

How could we raise awareness of the consequences of publicity-oriented behaviour?

C Please, share your ideas and comment at least one other suggestion! (use Reply button)

Photo/Video Publish

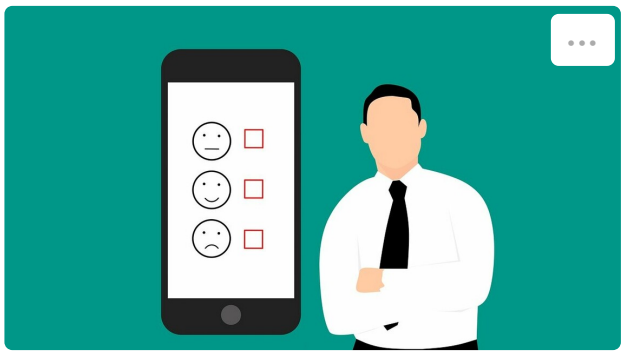
Innovate!

What kind of storytelling campaign would you consider effective? Who should carry the campaign? What kind of stories/narratives could be used?

C Add also links/photos/videos of effective campaigns that use storytelling! Copy the weblink here or add your own photo/video by clicking the camera icon.

Photo/Video Publish

Post-Crisis: Recovery & Learning



Crowdsourcing from citizens

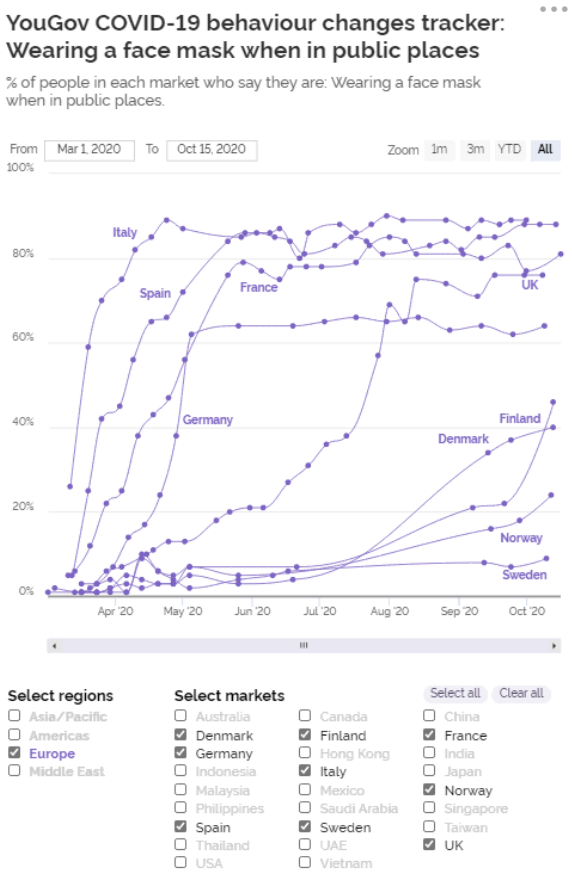
Crowdsourcing can be used at different phases of crisis to collect information from people (e.g. STOPCorona!). Here we want to discuss how crowdsourced data could be used to recover and learn from crisis. We will give you examples from the previous workshops on who is difficult to reach during a crisis and how crowdsourcing has been used in the pandemic.

Crowdsourcing: Engaging an unspecified group of people to solve problems, finance or innovate either with or without compensation. Open call is usually published on the internet.

It is necessary for the crisis management to understand the needs and feelings of the whole population. It is also important to know who is at risk or needs special support. Online crowdsourcing is an increasing method to capture information from the public. It engages people who are familiar with mobile apps and internet platforms. This means that there are many groups that cannot be reached with this method.

In the previous tabletop exercises, participants were asked about groups that are difficult to reach during a crisis. They mentioned the following groups:

- People not using digital devices or social media by choice, circumstance or conviction (e.g. elderly, children, poor, persons reluctant adopt new technologies)
- Persons with disabilities who may receive information mainly from the caretakers
- Foreign language speakers who obtain information from foreign media sources (e.g. linguistic minorities, tourists, seasonal workers, irregular migrants)
- Uneducated people who may not have digital skills or are illiterate



YouGov is an example of crowdsourcing. Have a look at the COVID-19 Public monitor. It is based on volunteer panel responses. You can see, for instance, COVID-19 related fears, personal safety measures taken to avoid COVID-19, and happiness levels.

Share your experiences!

Do you have personal experience of collecting information from groups that are difficult to reach ?

C Add links/photos/videos of examples! Copy the weblink here or add your own photo/video by clicking the camera icon.

Photo/Video Publish

Innovate!

How could online crowdsourcing methods be developed further? How to complement online crowdsourcing to learn how people survive and recover from crisis? How could the mentioned groups best be reached?

C Please, share your ideas and comment at least one other suggestion! (use Reply

Photo/Video

Publish

How useful do you find the presented centralized crisis communication models?

Centralized crisis communication models

In BuildERS, we have studied different institutional context and ways of organizing crisis communication. Some countries have a centralized system that share information and/or tackle false information. Please look at the following models and share your thoughts.

Belgian model

At the end of 2013, a network of communicators (Team D5) was set up to assist authorities with the tasks of crisis communication. The members of the Team are volunteers providing support to municipal, provincial and federal level crisis management. For instance, they analyse information, formulate communication advice, and assist in drafting of messages.

0= cannot say; 1=not at all; 5= very much

Useful

0 1 2 3 4 5

✔ Submit

The members of Team D5 have a background in communication and emergency planning. Most of them work for a municipality or for the federal governors' offices. They all take a five day specialized training course before joining the Team.

Swedish model

In Sweden, the Swedish Civil Contingencies Agency (MSB) is a central hub for sharing crisis information. Krisinformation.se is a web site/application run by the MSB. Their mission is to compile and convey warnings, alerts, and emergency information from Swedish authorities to the public. The information has been confirmed by the responsible authority or actor. MSB also has a department for tackling misinformation and dealing with malicious information campaigns. For example, it protects the integrity of elections.

Discuss!

Share your thoughts about centralized crisis communication management.

What could be the benefits? Can you perceive any drawbacks?

C

Photo/Video ✔ Publish

You must be exhausted!

Relax, enjoy your favorite sweet and give us feedback on the workshop.

Select one option.

- ☐ Strawberry
- ☐ Chocolate
- ☐ Muffin
- ☐ Macaron
- ☐ Cake
- ☐ Orange

Give us feedback!

How did we do? How can we improve the workshop?

🔒 Your answer is not shown to other participants.

C

Photo/Video ✔ Save

- [ ] Croissant
- [ ] Blueberry
- [ ] Pancake

✔ Submit answer

Path mode

MISINFORMATION AND CRISIS COMMUNICATION

Welcome to the BuildERS-project workshop on crisis communication!

We are living exeptional times. We have now an unique opportunity to innovate together, how we could improve our resilience towards crisis. In order to protect us from the coronavirus infection, we will organize this workshop online.

This platform deals with the topic of crisis communication and the supportive role of citizens' networks in communication. We are particularly interested in finding ways to reach vulnerable groups and to prevent spreading of false information. In the project we are dealing with the wrong information which were given on purpose (disinformation) and unintentionally shared false information (misinformation).

On this topic, we provide you some information about crisis communication and the phenomenon of influencing through information.

First, you are requested to assess your organisational strenghts and weaknesses in terms of communication. You will also contemplate new media related threats and opportunities. We will then present you with two scenarios that will allow you to analyze your own communication strategies.

Please share your experience and expertise with us! During the project we will engage stakeholders from rescue services, law enforcement, non-profit organizations, policy makers and other agencies. We genuinely want to include your impulses into the project results. Analysis of the crisis communications is an essential part of building a more resilient Europe.

Remember: you may remain anonymous if you like by editing your profile in the top-right corner.

This exercise will take roughly 45 minutes of your time.

You may proceed by pressing the "next"-button on the bottom of page.

Warm thanks of your time!

With the term crisis we refer to severe emergencies or disasters

BuildERS definition of vulnerability

People are neither born vulnerable nor do they stay vulnerable at all times. Vulnerability is situational: anyone can become vulnerable in certain circumstances.

At the same time in our current society there are some individuals who are more likely to become vulnerable due to the situations these persons are in. The reasons for these vulnerabilities are manifold and being vulnerable in one regard does not necessarily lead to a high need for support. E.g. not all elderly people are physically or mentally impaired. Also age and therefore experience might also be a capacity in dealing with special threats such as power cuts.

Against this backdrop, vulnerability should be regarded as multidimensional. This encompasses, that people may have several kinds of vulnerabilities simultaneously, as well as own biases or stereotypes regarding certain group criteria (e.g. elderly are vulnerable per se) should be periodically scuritinised.

Vulnerability can relate to the ability to share critical information before, during or after a disaster. For example, a person without native language skills may not regularly follow the local news, understand alerts or trust authorities.

Some may seek information solely from their peers or the supportive NGOs. This means that the information providers need to think of communication means as wells as channels and the conditions in which people receive and respond to information about hazards.

Communicational factors that may increase or decrease vulnerabilities in disasters

	Increases vulnerability	Decreases vulnerability
Characteristics of communication	Short messages (e.g. tweets or emergency alerts) may be confusing and not state the source of the message.	Messages containing explicit information about the threat, affected area and protective actions (what, when and how).
	High number of simultaneous or even conflicting messages. Even official alerts can be mistaken as spam.	Trusted authorities and other trusted sources (like service provider NGOs or faith based organizations) use multiple channels in a coordinated manner.
	Sensationalist 24-hour news may promote disaster myths (e.g. exaggerate the impacts or present people as more vulnerable than they are - as passive victims without ability to self-organize for help).	Channeling information via trusted community members and peoples' already existing social (media) networks.
	Statistical information of the event and maps can be difficult to understand for some.	Narrative information (e.g other peoples' stories about the situation) may support individuals' decision making.
	National broadcasting may provide too generic and geographically wide information.	Local information may be more accurate, detailed and relevant for people.
Receiver's circumstances	Discrimination and hate speech push vulnerable groups further to the margins of society.	Including marginalized groups in awareness building for instance at schools and work places.
	A person who is not using multiple news sources and is not skilled in using internet search engines, is very vulnerable to online misinformation. Overall reach of the social media is still quite poor.	Social media messaging should be combined with the more traditional channels. Radio is the most trusted media in Europe in all age groups.
Disaster context	If the nature of the threat is intangible, time unlimited and deadly (threat is difficult to spot or see) one more easily believes rumors.	Government agencies should understand the phenomenon of rumormongering and its processes. Social media communities can be used for collective fact-checking and debunking myths and rumors.
	False information is most likely spread in terrorist attacks and other man-made catastrophes.	

What kind of communicational situations have you considered to be most challenging?

C

Photo/Video Publish

Which groups do you consider difficult to reach with your current communication means and channels?

C

Photo/Video Publish

Do you have experience in correcting false information related to your work, for example concerning the situation with the corona virus. Please share with your experiences.

C

Photo/Video Publish

Which groups have been hurt due to false information in your experience? Think for instance false information related to the corona virus.

C

Kuva/video Julkaise

INFO box

Here are some potential methods that can be used to harm disaster communication.

Polarization

Polarisation aims to strengthen opposing views and public opinions. Polarisation is based on exirting value differentces and tentions.

Polarisation uses for example misleading idenitites, when the actors imitate trusted individuals or organisations. Second way is to tailor information content so that it appeals to certain groups. Third way is to manipulate the popularity of certain opinions. Some groups are silenced so that their opinion is made to look like the minority opinion. At the same time false information can be spread.

Examples are the use of misleading identities, designing information for specific personal profiles or groups; manipulation of the perceived popularity of certain opinions, silencing people by making them think that their opinion is in the minority and spreading false information.

Provocation

Flooding

Flooding creates confusion by overloading audiences with information either positive, negative or irrelevant. It occurs in social media and other media channels like TV, radio,

Provocation exploits sensitive issues. The aim is to antagonize people to generate anger and discord. This technique aims to trigger
emotional vulnerabilities e.g. by using malicious rhetoric.

Share your observations!

It is very challenging to identify information influencing. It is often noticed retrospectively. Have you noticed any false or harmful information spread in relation to the coronavirusepidemic? Please tell us about your observations. You can also share a video or an image.

Write here your observations and or share a link to an interesting website. You can also upload an image or a video by using the camera icon below.

C

Photo/Video Publish

SWOT analysis

SWOT analysis is an acronym for identifying **strengths (S)**, **weaknesses (W)**, **opportunities (O)** and **threats (T)**.

SWOT is a good brainstorming tool for the analysis of internal resources and capabilities and linking these with the external opportunities and challenges.

newspapers.

Information “laundering”

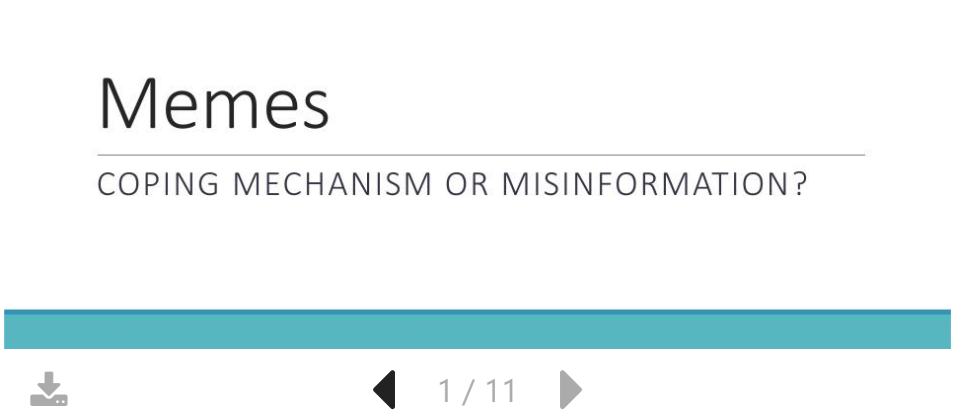
Information “laundering” gradually distorts and decontextualizes information. The aim is to make it difficult or even impossible to tell whether the source is true or false.

Laundering may use multiple means for example deceptive identities and fake videos created with AI (deepfake).

One method is to masking the intentionally false information (disinformation) as humour and satire. Different kinds of memes: images and videos are very popular.

It is very challenging to identify information influencing. It is often noticed retrospectively. Have you noticed any of the means shown here in relation to the coronavirusepidemic? Please tell us about your observations. You can also share a video or an image.

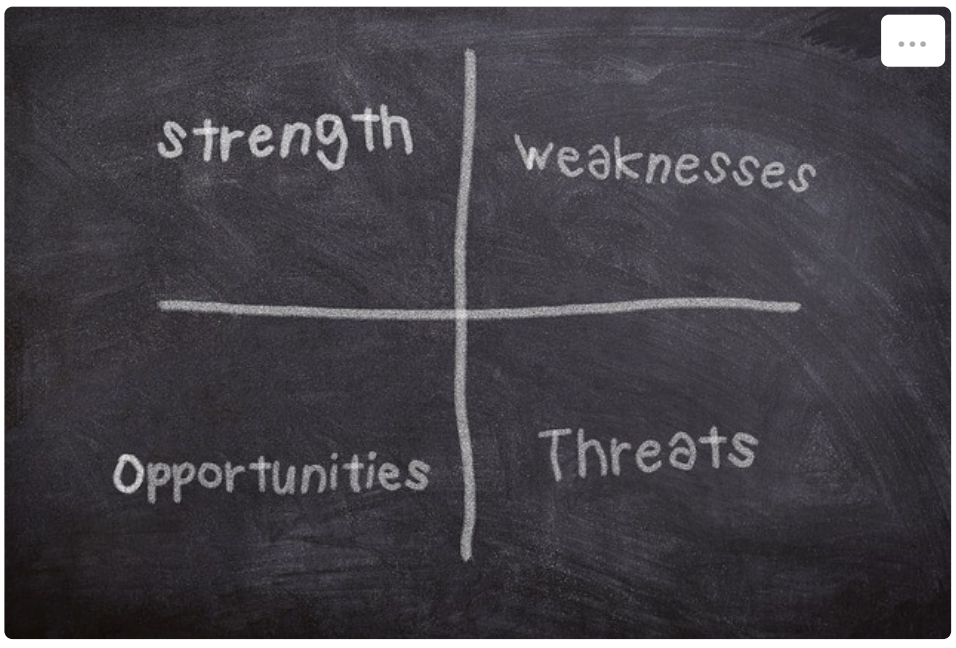
Write here your observations and or share a link to an interesting website. You can also upload an image or a video by using the camera icon below.



SWOT is a snapshot in time of the contemporary situation combined with a prospect to future risks and possibilities.

Please think about your internal strengths and weaknesses in disaster communication below. After that, please tell us your opinion on current threats and opportunities related to crisis communication.

You can also “like” comments made by others.



When you think about reaching vulnerable groups in disasters, what would be your main organizational strengths? (For example level of trust, volunteer networks, training, media monitoring etc.)

Please answer on a general level. Your answer will not be shown to other participants.

C

Photo/Video Publish

In contrast, when you think about reaching vulnerable groups in disasters, what would be your organizational weaknesses and/or development areas?

C

Photo/Video Publish

Threat 1

Threat 2

Threat 3

Publicity-oriented behaviour, which threatens personal and public safety

Disasters can attract spectators, who hinder rescue operations. They may take pictures and videos from accidents and publish these in the social media. In some European countries, this behavior has been criminalized.

Publicity-oriented behaviour may even be competitive. Especially the young (adults) have taken part in social media "challenges", where something dangerous is documented. For example during the coronavirus pandemic there has been a challenge involving licking of dirty surfaces and thus taking a deliberate risk of infection.

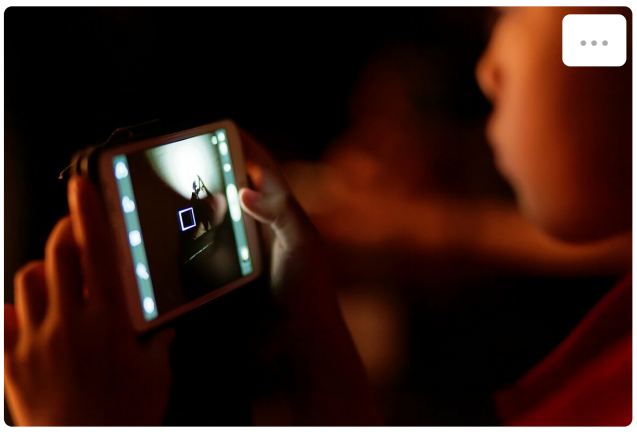
COMMENTS AND OPINIONS

Have you experienced this kind of behavior? How would you respond to this threat?

C

Photo/Video

Publish



Protection of victims from unwanted publicity

Information about victims (names and pictures) are often spread in traditional and social media before authorities have had a chance to contact family members. Eye witnesses, survivors and people in shock are also in need of protection from unwanted publicity. Also, family members and friends need time to recover and mourn.

COMMENTS AND OPINIONS

How would you protect these groups?

C

Photo/Video

Publish

Stigmatization and hate speech

Information about possible perpetrator/s might be spread even if authorities have not yet released factual information about them. Especially, in man-made disasters hate speech towards suspected (e.g. ethnic) groups may increase. Entire communities might be stigmatized even if they are not to blame for the incident.

For example, people of East Asian descent have been targeted during the coronaviruspandemic.

COMMENTS AND OPINIONS

How would you manage this phenomenon?

C

Photo/Video

Publish

IFRC unicef for every child World Health Organization

Social Stigma associated with COVID-19

A guide to preventing and addressing social stigma[1]

Target audience: Government, media and local organisations working on the new coronavirus disease (COVID-19).

WHAT IS SOCIAL STIGMA?

Social stigma in the context of health is the negative association between a person or group of people who share certain characteristics and a specific disease. In an outbreak, this may mean people are labelled, stereotyped, discriminated against, treated separately, and/or experience loss of status because of a perceived link with a disease.

Such treatment can negatively affect those with the disease, as well as their caregivers, family, friends and communities. People who don't have the disease but share other characteristics with this group may also suffer from stigma.

The current COVID-19 outbreak has provoked social stigma and discriminatory behaviours against people of certain ethnic backgrounds as well as anyone perceived to have been in contact with the virus.

WHY IS COVID-19 CAUSING SO MUCH STIGMA?

The level of stigma associated with COVID-19 is based on three main factors: 1) it is a disease that's new and for which there are still many unknowns; 2) we are often afraid of the unknown; and 3) it is easy to associate that fear with 'others'.

It is understandable that there is confusion, anxiety, and fear among the public. Unfortunately, these factors are also fueling harmful stereotypes.

WHAT IS THE IMPACT?

Stigma can undermine social cohesion and prompt possible social isolation of groups, which might contribute to a situation where the virus is more, not less, likely to spread. This can result in more severe health problems and difficulties controlling a disease outbreak.

Stigma can:

- Drive people to hide the illness to avoid discrimination
- Prevent people from seeking health care immediately
- Discourage them from adopting healthy behaviours

[1] This checklist includes recommendations from Johns Hopkins Center for Communication Programs, READY Network.

1

Updated 24 February 2020

1 / 5

When talking about #COVID19, certain words & language may have a negative meaning for people and fuel

stigmatizing attitudes https://t.co/yShiCMfYF3 #coronavirus pic.twitter.com/d54qL4LY2H

— World Health Organization (WHO) (@WHO) March 2, 2020

Opportunity 1

Short messages

As stated in the table, short messages like tweets and or alerts can be confusing for people. However, many authorities use Twitter and short messages in acute crisis situations as it has been proven to be a good tool, enabling fast reaction and provision of information one issue at a time.

COMMENTS AND OPINIONS

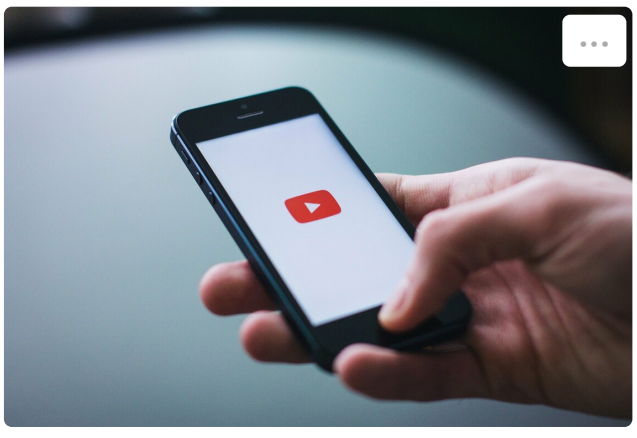
What is your opinion on short messages as a communication method?

C

Photo/Video

Publish

Opportunity 2



Influencers

People receive and share information with other like-minded individuals. They do it intentionally and with the encouragement of technology (search engines, cookies).

Social media influencers may have large built-in audiences who may act as sources of information. For instance, in Finland, there is a YouTube influencer called Roni Back, who has an audience of 500 000 people in Finland (population 5, 5 million). He uploaded a video targeted at children called “What is the corona virus and should we be worried” on his channel on the 29th of January that has been viewed 293 000 times. Influencers like Roni stay humorous even when they talk about serious issues. Full-time influencers are usually entrepreneurs whose income can be depenent on advertising revenue.

COMMENTS AND OPINIONS

What is your opinion on social media influencers as crisis related content producers?

C

Photo/Video

Publish

Opportunity 3

Virtual volunteering

During the flooding of Dresden in 2013 virtual volunteers built up a group who designed flooding maps of the area to inform citizens of (im)passable areas. (Breuer 2014, in: BBK: Bevölkerungsschutz 3, 2014, 26-29).

COMMENTS AND OPINIONS

What is your view on this kind of virtual volunteering?

C

Photo/Video

Publish

Communicational strategies

Our goal in BuildERS is to explore the best communication strategies for different disaster situations. Next we would like you to think about your communication means and methods in two kinds of scenarios (fictional disaster situations).

The 1st scenario focuses on preparedness while the 2nd scenario emphasizes responses to a severe disaster situation:

1st scenario: When you can build on your strengths to take advantage of the future opportunities (GREATNESS -strategy):

> How would you communicate, if you could use your strengths and capacities and also take advantage of the new communication tools and technologies?

2nd scenario: When you need to minimize your weaknesses and avoid potential threats (SURVIVAL -strategy)

> How would you communicate, if you had limited means and resources to reach people, correct false information and fight against information influencing?

On the following pages you will be introduced to these two imaginary scenarios.

1st scenario: We are doing great!

It's December 2035. People are crowded into department stores and malls looking for last-minute Christmas presents. Chinese media has released stories that the coronavirus that became a global pandemic in 2020 has transformed and that the vaccine that was developed for it would not necessarily prevent infection. According to the National Health Council, a new and stronger wave of the coronavirus is likely. Since the coronary virus pandemic of 2020, municipalities have updated their contingency plans, recognizing the central role of NGOs and religious communities in providing social and spiritual support. In addition, several research and development projects that focus on the role of spontaneous volunteers and social media networks in emergencies, have received funding.

Mobile positioning data technology is in widely used in governmental forecasting. The Government has been able to allocate people’s movement successfully and is able to analyze the chain of infections and contact those that have been exposed. Volunteer groups that formed during the coronavirus pandemic have continued to operate. In particular, volunteerism targeted to people living alone have expanded considerably. Easy-to-use applications have been developed for seniors and special groups to communicate with their loved-ones. There are applications that help reach private, public and third sector services. Organizations and online volunteers train people to use the applications. The health board has vastly improved their preventive strategies since the 2020 coronavirus pandemic. Experts in various fields and key strategic partners are more extensively involved in preparedness activities. They have new means to gather and analyze aggregated information and feel prepared for future crises. The citizens have high trust in the institution.

Spontaneous volunteers

1 / 14

FOCUS GROUPS - Risk awareness

For which individuals or groups is it most necessary to be informed about the disaster?

C

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FOCUS GROUPS - Risk perception

Are there persons/ groups that do not take action in the face of crisis information?

What are the reasons persons do not act? (E.g. Do they do not get information, are unable to understand them or are there other (good) reasons, which keep them from acting according to the acute hazard?)

C

Kuva/video Julkaise

COMMUNICATION CHANNELS

How could we reach our communicational focus groups? Which communication channels could work best in this situation and why?

C

Photo/Video Publish

STRATEGIC PARTNERS

Which stakeholders, authorities, other organizations or communities could we collaborate with?

C

Photo/Video Publish

STRATEGIC PARTNERS

Could you describe how spontenous social networks or volunteers could be of help in this situation? By sponaeous volunteers, we refer to volunteers that become active during the crisis.

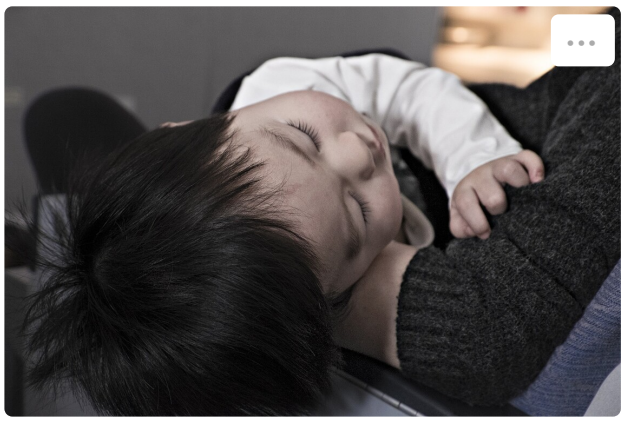
C

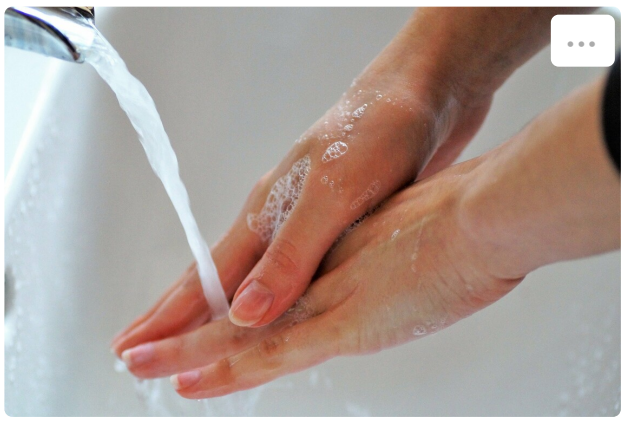
Photo/Video Publish

2nd scenario: We will do our best in a difficult situation

It's December 2025. People are crowded into department stores and malls looking for last minute Christmas presents. The Chinese media has released stories that the coronavirus that became a global pandemic in 2020 has transformed and that the vaccine that was developed for it would not necessarily prevent infection. Scientists are not in agreement with these statements.

False information has gained foothold after the pandemic. The widespread anti-vaccine movement "Yes we are Anti-vaxxers!" has gained more popularity and is actively distributing its message, especially on social media channels like Facebook and Instagram. They like to use targeted messages to individuals and form closed groups on social media. In Estonia, activists are targeting families with children. The activists believe that the coronavirus vaccine is useless for children and that they are better off





if they get the virus and thus gaining immunity. The whole world took a large leap forward in digitalization of services in 2020. Currently, someone has created and shared a deep fake video where the head of the health board warns citizens about the impending pandemic and the fact that the vaccine may not work; it has spread fast and triggered citizens trauma related to the pandemic of 2020. Furthermore, there is a rumor that an app that gathers symptom and health information has been hacked, and that criminal organizations can access data and track people's movement. This has led to people staying in their homes.

An atmosphere of panic has risen in the country. People are afraid of sharing too much of their personal information online. Overall, the crisis has polarised the nation as the far right blamed certain communities from spreading the virus amongst the population. Foreigners were seen as the culprits for the spread of the virus and some communities were especially targeted or highlighted in these conversations. Institutions received their share of the criticism. The National Health Council and the Ministry of Health were heavily criticized in the context of the 2020 pandemic. Their initial assessments of the evolution of the pandemic received harsh criticism. Afterward, the families and children of Italian National Health Council employees who appeared in the media have been tracked and threatened on social media.

FOCUS GROUPS - Risk awareness

For which individuals or groups is it most necessary to provide with factual information about the disaster?

C

Photo/Video Publish

FOCUS GROUPS - Risk perception

Are there persons/ groups that do not take action in the face of crisis information?

What are the reasons persons do not act? (E.g. Do they do not get information, are unable to understand them or are there other (good) reasons, which keep them from acting according to the acute hazard?)

C

Photo/Video Publish

COMMUNICATION CHANNELS

How could we reach our focus groups?

Which communication channels would work best in this situation and why?

C

Photo/Video Publish

STRATEGIC PARTNERS

Which stakeholders, authorities, other organizations or communities could we collaborate with?

C

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STRATEGIC PARTNERS

Could any informal networks be helpful?

What could their roles and responsibilities be?

C

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THANK YOU FOR TAKING PART IN THIS BUILDERS ACTIVITY!


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