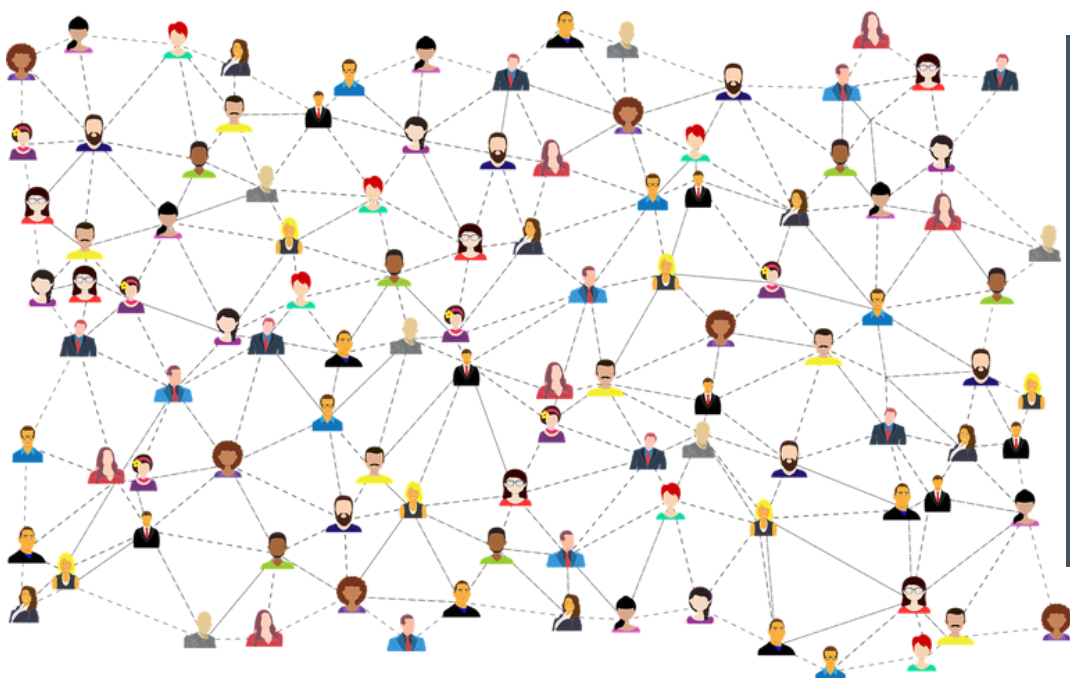# MOBILITY

MOBILIZING CITIZENS, IDEAS AND GOODS IN CASE OF DISASTERS

PHYSICAL MOBILITY

The mobility of people, resources and aids

HOW SOCIAL MEDIA AND CROWDSOURCING COULD HELP IN DISASTER MOBILITY?

Mobility refers to the physical movement of citizens and resources from one place to another. Henceforth, mobility is closely related to the level of accessibility of resources and materials aids, as well as to the connectivity of a territory, i.e., the availability of means of transport. Disasters can cause the disruption of people's capacity to move or force them to leave in order to find safe shelters. Mobilizing citizens also means to create situations of social participation through the promotion of initiatives and forms of activism. Social networks and crowdsourcing platforms could play a pivotal role in this regard. For example, they could help to monitor people during evacuations, or support the organization of groups and social movements. For this reason, connectivity is an essential precondition to mobility.

CULTURAL MOBILITY

How ideas move the world

1 PREPAREDNESS ACTIVITIES

Go to Action 1a-b-c

2 MOBILIZE PEOPLE

Go to Action 2

3 SPONTANEOUS AIDS

Go to Action 3

TEMPORAL MOBILITY

Evacuating monitoring

PHYSICAL MOBILITY

It deals with people's capacity to move as well as to the movement of resources and aids in hazardous contexts.

The effect that disasters can have on people's mobility strictly depends on the hazard type. Hazards have been generally divided into two distinct categories: natural disasters (e.g., earthquakes, floods etc) and man-made disasters (e.g., industrial spills and terrorism).

> **"Social media can help monitor people's reactions as well their psychological condition in order to support the evacuation plans in a more effective way"**

Disasters can cause severe damages to the infrastructures (collapse of a building for example), hindering or preventing people from moving from one place to another. Even the availability of means of transport could be negatively altered or abruptly interrupted. During risk situations, from earthquakes to droughts, people are forced to leave their homes in order to reach assembly points and thus find temporary shelter. We must also consider the effects that a disaster can have on orientation: people might lose their usual point of reference since hazards can alter the appearance of both urban and natural scenarios. In recent times, social media and crowdsourcing have proven to be very useful resources in this regard. In the case of aid mobilization processes, these tools could support supplies planning by effectively showing how to distribute basic items according to people's actual needs, without leaving behind those who are more vulnerable.

FOCUS ON PHYSICAL MOBILITY

Natural disasters and climate change played a key role in migration flows. Climate or environmental migrants are people who are forced to leave their native habitats temporarily or permanently due to environmental hazards. According to the United Nations High Commissioner for Refugees, starting from 2008, an annual average of 21.5 million people have been forced to move due to climate change and related natural disasters. Almost 1.2 billion people are expected to be displaced globally by 2050 for the same reasons. Still according to the UNHCR's report, in 2020, almost 95% of displacement due to conflicts occurred in countries particularly vulnerable to the effects of climate change.
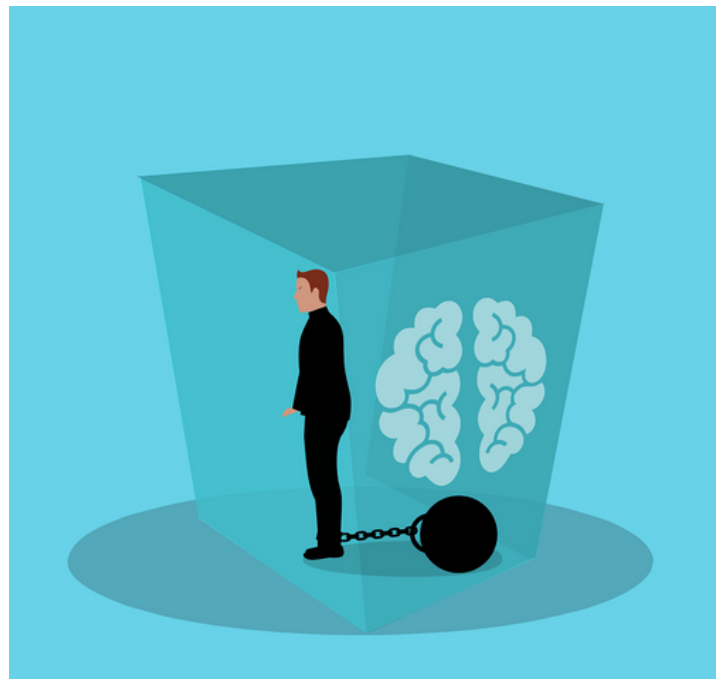
IMMOBILITY

We define immobility as a temporal inability to react due to physical and/or psychological issues caused by a disruptive event.

Specific emergency situations can produce a psychological trauma making a person unable to physically react or to communicate his/her needs, which could lead to the loss of information and reduce the reliability of the request. As a consequence, the rescue process could be partially or fully invalidated.

"Mobility is a resource that is deferentially accessed"

Special populations are particularly vulnerable to psychological issues in the occurrence or in the aftermath of a disaster. Women, children, adolescents, disaster volunteers, and individuals with prior trauma or pre-existing mental disorders, could be identified as vulnerable groups. Recent studies have tried to find solutions, especially in relation to the potentialities of the digital devices. In situation where people who are unable to communicate because they are physically wounded or traumatized, information could be drawn from background noises and by facial or emotional expressions. Henceforth, first responders are required to understand the situation by interpreting either visual or auditory signals. For instance, the use of webcams can be used as an efficient communication channel, in case a person cannot talk.

FOCUS ON IMMOBILITY

Studies conducted on post-traumatic stress disorders caused by hazardous events show that the prevalence of PTSD is estimated to be 5-60% for natural disasters and 25-75% for the so-called man-made disasters. One occurring psychological condition is depression, which varies at 13-76% after a disaster. Moreover, anxiety is one of the most prevalent symptoms in this regard: two sever earthquakes in Nepal in 2015 showed that 33.8% of residents suffered from high levels of anxiety, especially among adolescents.(around 1 child up 10).

CULTURAL MOBILITY

Digital platforms can support the mobilization of ideas and good practices, but also foment hate and incite violent acts.

Digital media and crowdsourcing platforms could facilitate the participation of people by diffusing communication and social initiatives even on a transnational level.

"Social media provide new opportunities for mobilization, organization, and coordination"

That is new and dynamic spaces for articulated debates and united actions. Social networks could be essential to the promotion of social campaigns and in the creation of a so-called "shared awareness", i.e., helping people to connect with other people who equally understand the problems they are coping with. At the same time, several studies have highlighted the potential disadvantages that social media might bring to activism, as they could enhance weak forms of social engagement (e.g., "slacktivism" and "clicktivism"). People might feel socially engaged by simply clicking a post, for instance, without seriously contribute to the initiative at hand. On a different level, social media platforms could disseminate bad practices by oversimplifying complex phenomena: as a consequence, they might prevent people from finding more reliable and accurate information. On the other hand, digital platforms could vehicle hate and incite violence, particularly at the expenses of vulnerable groups (i.e. minorities and immigrants). In past years, social media have proven to be one of the most effective channels or political hate propaganda, especially in the aftermath of a terrorist attack.

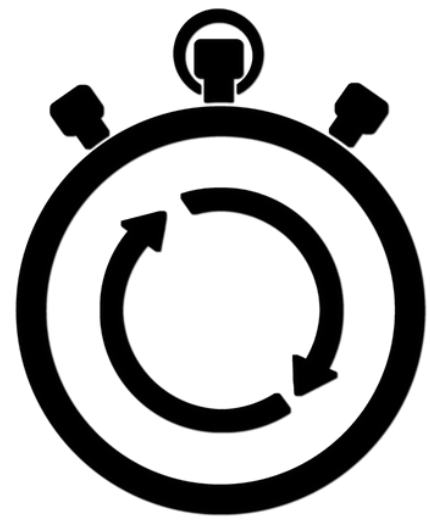## DATA ON CULTURAL ACCESSIBILITY

As for youth engagement in climate change content on social media, among U.S. social media users, 45% of people born between 1997 and 2012 (the so-called Generation Z), and 40% of people born between 1981 and 1996 (the so-called Millennials), had an interaction with social media content centered on the need for action on climate change by either posting or sharing content, by commenting a post, or by following a particular account. About the 69% of Gen Z and 59% of Millennials reported anxieties and concerns when they saw content on coil media apropos natural disasters caused by climate change. Studies have shown that the younger generations can become promoters of initiatives aimed to increase awareness on the risks related to climate change. This social phenomenon is mostly due to their high level of confidence in the use of new technologies and coral media strategies as an example, about 53% of Gen Z and 53% Millennial (still referring to the U.S. case) reported to be motivated to learn more about climate change and its effects since the last time they crossed related content on social media platform.

TEMPORAL MOBILITY

Mobility could be regarded not only as a spatial property, but also as a temporal one.

Vulnerability is also conditioned by time being a mobile as well as a potentially fast-moving condition, susceptible to change due to internal and external factors. Henceforth, people's mobility can be altered over space but also time: socio-economic development and political processes have consequences on the distribution of vulnerability on both geographical and chronological level. Disruptive events or other type of transformations that occurred in the past, can continue to condition vulnerability in present times.

"Mobility could be also considered as the capacity to answer in time during an emergency"

For this reason, mobility, which is strongly interconnected with vulnerability, should be regarded as an intra-temporal property, that is a dynamic category. We should also bear in mind that temporal situations of interrupted connectivity, such as a breakdown of communications, or a temporal malfunction of the system, could increase the level of vulnerability and put people's life in danger. For example, it can cause a delay in the rescue operations with severe consequences on the victims.

The use of social networks, particularly those that rely on geolocalization systems, could play a pivotal role in this type of situations, by reducing the time to locate the most affected areas.
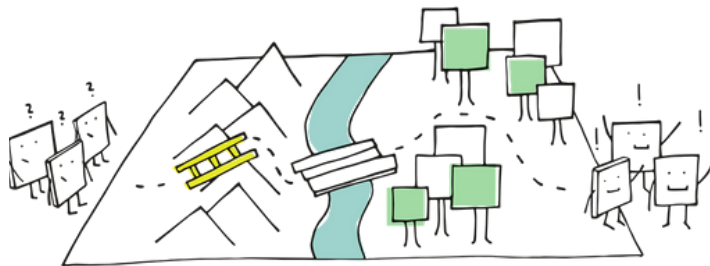
FOCUS ON TEMPORAL MOBILITY

The Italian Red Cross represents one of the main organizations on both national and local level that intervenes and collaborates before, during, and after a disaster occurs. In regard to the prevention phase, the Italian Red Cross has the aim to prepare the communities to respond in the right way to the calamities guaranteeing prompt and efficient collaboration. The organization counts more than 150.000 volunteers and 10.000 emergency vehicles to support and help the affected communities. One of the Italian Red Cross' aims is also to educate the community on how to respond to a calamity in the best possible way by following a standard procedure.

PREPAREDNESS ACTIVITIES (ACTIONS 1A- 1B-1C)

You can find below three accessible checklist for three separate preparedness activities to share with your community. The aim is to raise awareness on the necessity to be aware of the importance of having a preparedness plan in case of evacuation or home-sheltering.

ACTION 1A: ASSEMBLING A DISASTER SUPPLY KIT FOR EVACUATION OR HOME-SHELTERING SITUATIONS

The type of hazard determines people's mobility in a twofold way: it may force them to evacuate or to stay confined at home. In both cases, citizens should gather supplies in advance in order to ensure both situations. Here is an easy to share and accessible checklist to share among your community.
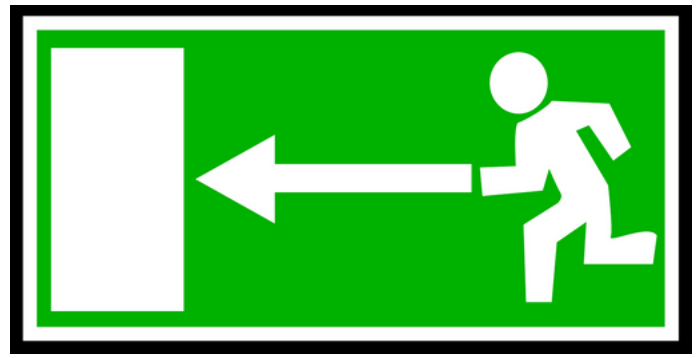
FOOD AND WATER

Object	Quantity	Last check
Water	1 L x person	
Canned food for three days (elderly and infant)		
Plates, glasses, cutleries (biodegradable)	1 pack	
Camping stove and gas tank	1	
Gas tank	2	

CLOTHES

Object	Quantity	Last check
Winter boots	1 x person	
Winter jacket + water resistant	1 x person	
Gloves and hat	1 x person	
Sleeping bag	1 x person	
Heavy blanket	1 x person	
Summer shoes	1 x person	
Tent	1	

	Object	Quantity	Last check
E **M** **E** **R** **G** **E** **N** **C** **Y** **S** **U** **P** **P** **L** **Y** **K** **I** **T** **C** **H** **E** **C** **K** **L** **I** **S** **T**	Copy of keys	1	
	Copy of personal document (personal ID, bank account)	1	
	Money		
	Flashlight	1	
	Batteries	1	
	First Aid Kit	1	
	Common medicines		
	Personal medicines		
	Multipurpose knife	1	
	Small hand tools (generic kit)	1	
	Hand sanitizer	1	
	Sanitary napkins	1	
	Garbage bags	5	
	Adhesive tape twine, metal wire	1	
	Matchstick and lighter	2	
	Notebooks plus pen	1	
	Cellphone plus charger	1	
	Computer/laptop plus charger	1	

ACTION 1B: CRAFTING A FAMILY EVACUATION PLAN

Here are some easy steps you can share to help build an evacuation plan in case people are requested to leave their home with a short notice.

STEP 1: Identify a rendezvous point where all family members (including the vulnerable ones) could meet safely

STEP 2: Map out on your device a main evacuation route as well as secondary routes in case you may find obstructions due to the type of hazard

STEP 3: Remember to have ample fuel in your vehicle, since it could be possible that you may not be able to fill the tank for days

STEP 4: You should keep a point of contact outside your family (a neighbor for instance) in case you cannot reach your family members

STEP 5: Remember to take with you your emergency supply kit (see Action 1a)

TIPS
- Always keep in mind that hazards could disrupt the land line or the telephone service, so you should need to create an alternative plan
- In case of disruption of the telephone service, always rely on text messages instead of WhatsApp message, for instance

ACTION 1C: REUNITE AFTER A DISASTER

Instructing people on how to set up a plan to find their relatives and household members

Each family should have a preparedness plan that included the identification of a rendezvous point located in a safe place in the neighborhood

Be sure to locate a safe place as a rendezvous point!!

STEPS

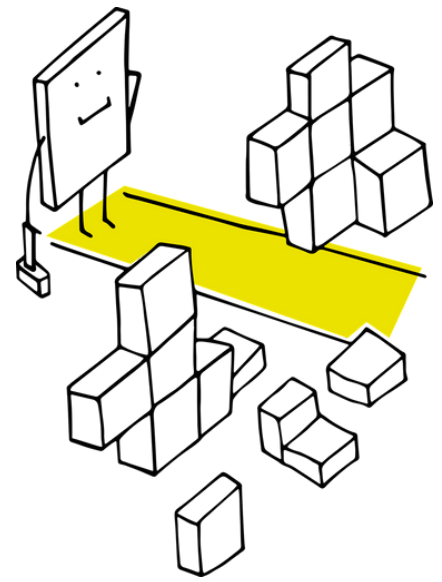To make it more effective, the rendezvous point should be shared with neighbors too

The safe place should be signaled by using social media platforms (e.g., WhatsApp, Google Maps). If people meet at the same point, first responders would save time and know who is safe/who is in danger

EXAMPLES

- In case of an **earthquake:** choose an open area away from trees, telephone poles, and buildings in general. Remember that architectural elements, such as windows or other parts, could be extremely dangerous being the first one to collapse
- In case of **fire:** stay at a safe distance from the buildings as well as from gas lines, high voltage wires, and dumpsters
- In case of **flood**: move to a higher ground

ACTION 2: GIVING INFORMATION TO THE CITIZENS ON HOW TO MOBILIZE IN THE AFTERMATH OF A DISASTER

Creating a proactive communication plan in case of disasters that relies on the use of social media could be extremely useful, as it guarantees a constant flow of information without interruptions.

How to keep people updated on the evacuation plan	Done/not done
Give specific information on the location of emergency shelters	
Give constant and updated feedback on roads closure	
Make sure to indicate alternative routes and to give regular updates	
Provide emergency evaluation maps (make sure to add links to official online maps)	
Provide updated shelters lists (make sure to add links to official online maps)	
The updates should be regularly shared in order to give comfort to the community	
Always make sure to constantly monitor your social media profile so to stay in contact with people in need	

HOW TO GUARANTEE A REGULAR EXCHANGE OF INFORMATION

- Select the members (or just one member) of your staff that will be in charge of managing the social media platform of your preference
- In case more people are in charge of social media communication, make sure that duties are equally divided among them: one should take care of uploading information, one of answering questions
- The information should always be fact checked: make sure one person of your team is in charge of validating the source of information

ACTION 3: COORDINATING SPONTANEOUS AIDS FROM CITIZENS WHO WOULD LIKE TO HELP

Through social media communication, it is possible to raise awareness and provide information on how to give effective and targeted support. Sometimes people would like to help without knowing exactly how, hence they might spontaneously send items or even physically reach the stricken areas, with the risk of hampering first responders' intervention.

Here you may find a to-do/avoid list to share with citizens in order to target in a more efficient way the mobilization of aids

DO

- Ask information to first responders on the items they would actually need according to their inventories
- Provide brand new clothes, better if still packed
- If you would like to send second-hand clothes, make sure they are clean and intact
- Be sure the items you would like to give are both useful and not damaged
- If you would like to donate items, ask about the specific needs of vulnerable groups (e.g., elderly people, infants, people with physical impediments)
- If you would like to become a volunteer, address to official and authorized groups
- Every time first responders/volunteers indicate the item they might need through social media, always check the day and the hour the post was published. Maybe they have already received what they needed

DON'T

- Providing unnecessary types of clothes (fancy dresses, hills, and so on)
- Broken or even slightly ruined or dirty clothes
- Make spontaneous donations without having done a proper research on what people in need may actually already have
- Physically reach the area where the disaster occurred (you would obstruct first responders in their activities)
- Search for information on unofficial sources or through random research
- Go to the emergency area and directly ask instructions on how to enroll as a volunteer
- Share or disseminate second-hand and unverified information or news

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