Collaborative technological solutions, which require a certain amount of connectivity, run the inherent risk of creating digital divides between those who can access the technology and/or the network (and hence participate in the collaboration) and those who cannot. Such digital inequalities and technological discriminations are not solely determined by socio-economic factors. They can also be the result of the structurally unsound design of such technological solutions or cultural differences in 'digital literacy', for example between generations, or existing gender, class, ethnicity divides. There are ways of designing the system so that the information can be accessed by those who may have access needs, perhaps based on disability. So when setting up a collaborative information management system, it is important to consider who might be cut off from the collaboration, how and when. The focus needs to be constantly on a very wide notion of who may come into contact with the system and how they would interact, based on their diverse characteristics.

Guiding Questions

Does your collaborative information management system exclude specific stakeholders due to the simple fact that they have no means of accessing the technologies/network?

Are there ways to rectify this by introducing different channels of communication in order to broaden your reach?

What extra resources would you need to broaden your reach and overcome any potential digital divides and is such a move justifiable?

Do you test how others might interact with your system using a wide range of available access-supporting technology and systems?

Do you strip out all non-essential components in the design of your system and present the information in a clean, universally accessible manner?

Further Information

There is a widespread concern that the explosive growth of new technologies such as the Internet and social media is intensifying existing inequalities. The term "digital divide" captures this concern highlighting disparities between the informational haves and have-nots. However, some argue that it also hides some of the necessary nuances of these inequalities by being too broad and oversimplified – for example, is it about access to ICTs, possession of hardware or lack of skills and know-how to access but also the ability to

critically engage with digital technologies? (see Warschauer 2004).

According to Norris (2001) and van Dijk and Hacker (2003), the concept of the digital divide is a multidimensional, complex and dynamic phenomenon. Norris distinguishes it between three different aspects. The *global divide* which refers to the divergence of Internet access between industrialised and developing societies; the *social divide* which concerns the gap between information rich and poor in each country, and finally within the online community itself, the *democratic divide* which 'signifies the difference between those who do, and do not, use the panoply of digital resources to engage, mobilize, and participate in public life' (2001: 4). Van Dijk and Hacker (2003) explore the ways it is connected to age and gender.

Technologies have always played a key role in emergency management and response. The ongoing 'informationalisation' and 'datafication' of disaster risk management along with the advent of social media and digital humanitarianism urge us to consider the digital inequalities and technological discriminations that such new practices bring along. These challenges range from understanding that those you are usually most in need of support might be the ones who have least access and understanding of these technologies (Murthy 2011 a, b) all the way to considering how the development of technological innovations in humanitarian response, such as drones, Big Data, etc. might be reliant on existing inequalities between a tightly-regulated and privacy-sensitive global North and a mostly unregulated global South (see Taylor and Broeders 2015).

Examples

- In one of our interviews, a member of the German Federal Agency for Technical Relief described how search and rescue is normally organised by mapping out a grid and carrying out a systematic search. The responder explained that when victims used mobile technologies to call for help after the Haiti earthquake, the Agency could precisely locate their needs. Such knowledge changed the priorities of deployment and disrupted a process designed to ensure the impartiality and rigour of search and rescue.
- Focusing on organizational policies of banning mobile devices and their impact on crisis communication, Ford, Stephens and Ford (2015) call for circumspect attention to the unintended consequences of technological exclusion and the subsequent digital divides. As they write, while some employees, especially knowledge workers, may be expected to carry mobile devices 24/7 to stay connected with their colleagues and managers, others are prohibited from using or even carrying their personal mobile devices. In crisis situations, this can lead to severe communication difficulties. Ford,

Stephens and Ford carried out focus group discussions with 46 participants from two very different organizations where such mobile device bans were in place and found many examples of lost information, disconnected and even forgotten workers, isolated and hard to locate. The employees of a fast food company and a company providing cleaning and janitorial services reported frequently missing critical information, for example about emergency drills. Their supervisors were so overwhelmed with the need to coordinate selective information flows that they missed informing some of their workers altogether, even in emergencies. In one situation, the distributed janitorial workforce was not informed of a severe weather event until all public transport had been suspended. While their supervisors, secretarial and managerial colleagues had been informed in a timely manner and were safely ensconced at home, cleaning crews and janitors were stranded and without means of communication. Apart from putting workers in discomfort or even danger, organizational policies and practices of banning mobile devices create experiences of inequality and relative deprivation, which are harmful to workers' sense of well-being and justice.

Resources

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