Are we missing out on tech-aided disaster management in Uttarakhand?

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A view of the destruction caused by foods and landslides at Govindghat, Uttarakhand. File photo: AP

A look at why it is proving difficult to lend that extra 'tech' edge to the relief and rebuilding effort in Uttarakhand.

The ongoing disaster management and relief effort in Uttarakhand begs the question: are we missing out on opportunities to deploy new technology-driven ways of collecting and processing information to help people in that State, as they struggle to come to terms with the massive destruction and loss of life caused by the floods?

In recent years, the world has been discussing ways in which the changing dynamics of the information technology environment - tools, communities, social media platforms - could be used to substantially boost the effectiveness of relief and rescue operations and help improve disaster management.

The United Nations has been trying to promote closer coordination between technology communities involved in crowdsourced mapping, disaster management and space technology for a better response. Different organisations, volunteer groups and specialists have been active in the disaster mangement sphere more than ever before.

The first glimpse of how technology has changed the context in which humanitarian relief operations could be carried out, emerged during the Haiti earthquake in 2010 when an online platform, Ushahidi, was quickly deployed by a group of international volunteers to tap into various information channels and create actionable information that could be embedded onto a map.

The situation gave rise to new challenges, though. "The international humanitarian system was not tooled to handle these two new information fire hoses—one from the disaster-affected community and one from a mobilized swarm of global volunteers," said a report, "Disaster Relief 2.0: The Future of Information Sharing in Humanitarian Emergencies," that examined the Haiti response. The report, prepared by UN Office for the Coordination of Humanitarian Affairs, United Nations Foundation and Vodafone Foundation Technology Partnership and Harvard Humanitarian Initiative, went on to say, "The challenge ahead is how to create an effective interface between these resources, and create an ecosystem where each actor understands its role."

So back to the question: what kind a role is information technology playing in diaster management in Uttarakhand? For instance, why has not crisis mapping taken on a larger dimension there? This question was addressed to a technology-driven international volunteer group that had got active in the aftermath of the Uttarakhand diasaster.

The group's coordinator Hemant Purohit, a researcher at the Ohio Center of Excellence in Knowledge-enabled Computing (Kno.e.sis), Wright State University, said that tech-driven volunteers have much to offer but what matters is end user requirement, awareness, training and engagement. Besides, relief agencies, the govenment and NGOs had been so preoccupied with the very demanding situation on the ground that they were finding it difficult to get involved in such initiatives.

Members of the group, who shared their thoughts with *The Hindu*, including Amit Sheth, director, Kno.e.sis Center, Brendan O'Hanrahan (StandBy Task Force), Harsh Kushwah (LNM Institute of Information Technology) and Sara Farmer (OpenCrisis), said there was lack of awareness about how a technology assisted response could help in managing the situation better. Prior awareness and training would have equipped them to tap into such technology, but the task is a challenging one given the number and type of stakeholders invovled.

The group had tried to push for a free SMS service number to enable people to channelise information, but that did not materialise. The utility of having such a mobile phone number had been highlighted in the aftermath of the Haiti earthquake, when it proved an invaluable information channel on the Ushahidi platform.

The co-founder of CrisisMappers, Patrick Meier, summed it up thus: "Digital humanitarian response must be demand-driven to work. Humanitarian organizations need to request activation and in doing so specify precisely what their information needs are and how they are going to use the resulting data to improve their decision making."

What was the feedback on the Uttarakhand crisis-map that Google had set up, to which volunteers had contributed information? The map, populated with information on control rooms, stranded and rescued people, shelters, relief camps and medical centres, roads, mobile network, places impacted and so on, is no longer being updated.'
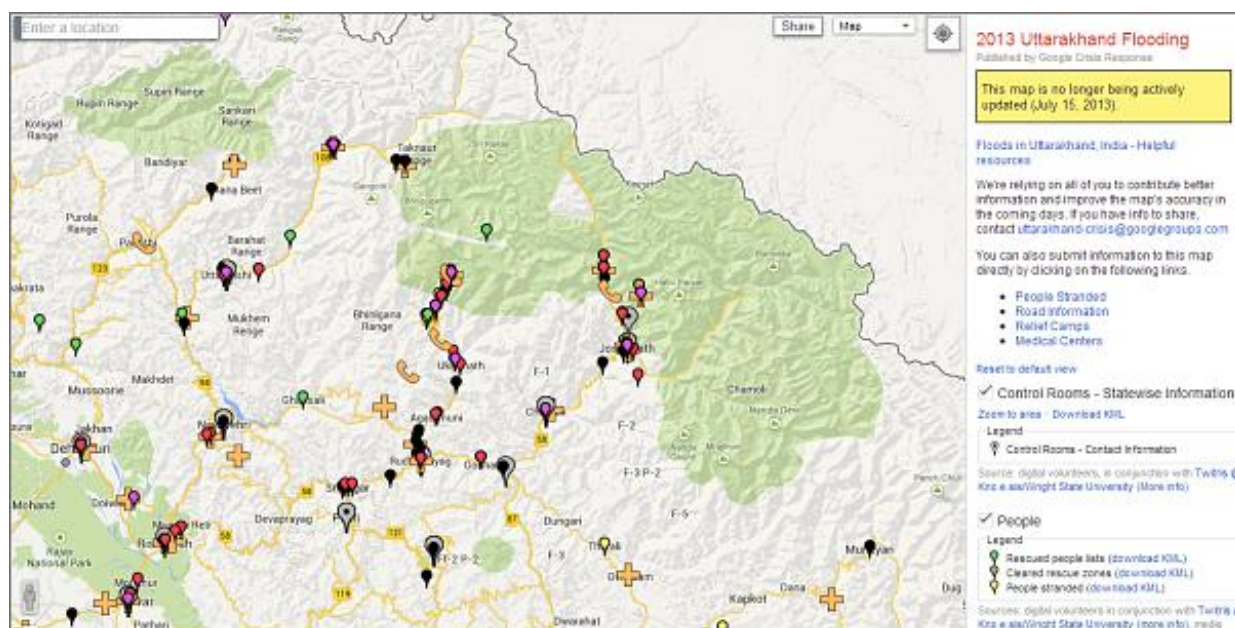
The map drew over a million unique visitors during the initial phase? "We believe that it helped a larger audience, the citizens," Mr Purohit said. But the group did not know how others users such as relief organisations made use of it and what improvements could be made in the light of their experience.

The Uttarakhand government had set up 'Operation Connect', a Facebook page to help reunite missing people. Google had stepped in earlier with its People Finder.

One other initiative had to with the creation of field maps. The Digital Humanitarian Network had earlier this month received a request for assistance with the generation of field maps that would assist aid agencies on the ground in Uttarakhand. And MapAction, Humanitarian Open Street Map Team and Humanity Road would help in this effort, according to another group member, Cat Graham, Coordinator for the Digital Humanitarian Network and V.P. Operations, Humanity Road.

There can be little doubt that technology can help in Uttarakhand in the coming days too, where rehabilitation and rebuilding poses a stiff long-term challenge. For instance, there were reports of people walking long distances to get their rations - with a crisis map and information coming in from the ground through an SMS channel, it would be

easier to work out the logistics and priorities about what kind of relief needed to go where, the group members say.

But the way forward was clear in some respects - the potential of such technologies had to be highlighted. Engagement with governmental and non-governmental organisations and institutions and other international bodies was required for creating awareness and disseminating information. Everyone needs to come forward - those on the ground and the digital volunteers in different communities - and join hands for a better targeted response.