# Early warning of mass atrocity crimes

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**The use of new technologies for early warning systems can help reduce people's vulnerability to mass violence.**

Ever since Boutros Boutros Ghali's *An Agenda for Peace*[1] report almost 20 years ago, there have been calls at the UN and elsewhere for improved early warning mechanisms for both natural disasters and complex emergencies. Early warning to help prevent mass atrocity crimes has received less attention, despite the obvious links to humanitarian issues such as civil disturbance, conflict and resultant (often mass) displacement.

Oxfam Australia held a conference on 'Early Warning for Protection' in Cambodia in November 2010 in partnership with AusAID, the Asia-Pacific Centre for R2P and the International Coalition for R2P. The conference brought together technology specialists, UN actors and civil society to discuss how technology, combined with effective programmes on the ground, can help to reduce the vulnerability of communities to mass violence.

Forms of new technology have created new opportunities for community-based information gathering and early warning. Platforms such as Ushahidi[2] and OpenStreetMap[3] –'crowd-sourced crisis-mapping tools' – are revolutionising the way crisis information can be gathered and made available.[4]

Such systems open up opportunities for affected populations themselves to inform one another, government authorities and the wider world about what is happening to them. For example, the Uwiano Platform for Peace[5] in Kenya used Ushahidi to monitor and respond to violence during the Kenyan referendum held on 4 August 2010. The programme included online tools and features for tracking, reporting and retrieving evidence of hate speech, incitement and other forms of violence or incitement to violence through text, images, voice messages and videos. Incoming messages were mapped through geo-location technology. The information gathered enabled Uwiano to notify police, authorities and communities when there were outbreaks of violence; recipients of the information could then make appropriate responses – either through avoidance or intervention.

## Constraints and risks

The potential of new technologies such as crisis mapping to enhance humanitarian response when displacement is occurring was tested in 2011 in Libya.[6] Although methods of effectively integrating these maps into humanitarian response are still being developed, the possibilities for improved humanitarian needs assessment are evident. The potential of crowd-sourced crisis mapping is, however, tempered by some constraints and risks that should be considered.

First, while the use of technology-based systems in repressive environments or where access is constrained looks immediately attractive, it should be remembered that technology is never truly secure and those making reports may be put at risk. Strategies for protecting the anonymity and security of people engaging with such technology-based systems and ensuring an awareness of the risks is critical.

A related issue is the concern some humanitarian actors hold about the potential protection risks of open source crisis mapping. For example, the risk reports submitted by affected populations or volunteer crisis mappers may include the exact locations of groups at risk of attack – thereby potentially putting them at further risk of being targeted. Sharing the humanitarian community's knowledge about the management of protection-sensitive information with the crisis-mapping community would be useful.

Third, while technology-based systems will be appropriate in countries with widespread internet connectivity like Egypt and Kenya, in countries like Timor-Leste they will have minimal application due to lack of internet coverage outside the capital. Even in countries that do have high levels of connectivity, vulnerable groups such as internally displaced people will often be excluded from accessing the technology.

Finally, online systems are inherently vulnerable. In early 2011 governments in North Africa shut down social networking, and in August Wi-Fi connectivity for passengers on San Francisco's transport system was disabled in the context of threatened social unrest. Governments, other actors and natural disasters can all shut down communications channels – making online systems less workable or possibly useless. Purely technology-based solutions to early warning may in some cases be insufficient; offline backup mechanisms would then need to be in place.

The *Disaster Relief 2.0* report, which explored the contribution made by international 'Volunteer and Technical Communities' (VTCs) to information gathering and disaster response in Haiti, found that there was limited formal or informal interface between the work done by the VTCs and the humanitarian coordination system.[7] While OCHA's engagement with the Standby Task Force in Libya is a promising development, there is much work to be done to develop effective coordination mechanisms between different actors in order to facilitate improved humanitarian response.

## From warning to protection

Transforming early warning into effective and timely protective action

is a complicated process fraught with several significant challenges. One of these is the abundance of information about complex phenomena combined with limited knowledge and understanding of what the information means. How to accurately predict patterns of behaviour that will result in systematic violence requires highly sophisticated contextual analysis. Other challenges include issues around when to warn, false alarms leading to future alerts being neglected, and failure to warn leading to lack of preventive action. The need to find ways to enhance local capacity to warn and

be warned was also a key focus of the November conference.

Despite these issues it is clear that community-designed and driven technology-based early warning projects, such as Uwiano, are having a significant impact. They demonstrate the potential of new technologies to empower communities to raise the alarm about threats that they face. In order to fulfil this potential, more work is needed to bring various technical communities together with humanitarian responders and affected communities themselves to improve practices and mitigate risks.

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1. *An Agenda for Peace Report of the Secretary General* (UN Doc A/47/277–S/24111) 17 June 1992.

2. www.ushahidi.com See also article by Galya Ruffer on pp20-21.

3. www.openstreetmap.org

4. For example, Mapkibera.org/wiki uses OpenStreetMap to map Kibera, the largest slum in Kenya housing one million people.

5. See www.comminit.com/en/node/323372

6. See article by Jeffrey Villaveces pp7-9.

7. www.unfoundation.org/assets/pdf/disaster-relief-20-report.pdf