

# What Ushahidi can do to track displacement

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**Ushahidi is an interactive mapping tool for use in crisis situations, which humanitarian workers can use to help them target assistance.**

Ushahidi, which means 'testimony' in Swahili, was initially a website with roots in the collaboration of Kenyan citizen journalists mapping reports of violence in Kenya after the elections at the beginning of 2008. It mapped incidents of violence and peace efforts throughout the country based on reports submitted via the internet and mobile phones. Ushahidi has since developed into a non-profit

technology company that specialises in developing free and open source software for information collection, visualisation and interactive mapping in order to "democratise information, increase transparency and lower the barriers for individuals to share their stories."<sup>1</sup> Ushahidi has been used after the earthquake in Haiti and the floods in Pakistan, and is being used in North Africa.

In 2008 when Ushahidi mapping software was deployed in the Democratic Republic of Congo (DRC), it was the first time that a population living in a crisis zone was invited to report incidents of violence to be collated into an online map. People on the ground could submit a report directly to the online map by either logging onto the website or sending a text directly to the site. After moderation by the Ushahidi team, the reports appeared on the website as incident data organised



into categories such as riots, looting or sexual assault, and type of actor. Someone viewing the map could look to see the overall clusters of violence across all categories or select a particular category in order to gain a sense of where the greatest incidence of that particular form of violence had occurred.

Getting this kind of technology to take hold locally in a place such as eastern DRC, however, faced some fundamental problems. The greatest challenge came from the overwhelming condition of displacement; living in camps, displaced to nearby villages or fleeing to towns, people on the run, fatigued and struggling to protect their families, have no time to file a report. Much of the violence was anyway taking place in remote villages cut off from any technology. In addition, there were language barriers, and the high value of information in a complicated conflict like that in DRC increased the likelihood of false information and corruption. Even if people had the ability to file a report, security concerns – a fear of being identified and targeted – would deter most.

#### Making sense of data

While Ushahidi has not met its aspirations in DRC, the Center for Forced Migration Studies (CFMS) at Northwestern University in the US, which manages <http://drc.ushahidi.com/>,<sup>2</sup> is exploring the potential of Ushahidi's open-source mapping elsewhere in conjunction with data collection and academic research in order to track the patterns and causes of displacement and document the condition of displaced people.

Beyond serving as a resource in the protection of refugees' rights, open-source mapping has the potential to build local capacity to respond to crises that lead to displacement and to protect refugee populations. In DRC, for example, one can at least begin to better understand the connection between factors that contribute to displacement. There, data gathered through on-the-ground reporting of incidents by eyewitnesses, through third-party reports by NGOs, IGOs and media sources, and through academic research and other reports can be used to track the connection

between variables such as ongoing land disputes, mining operations, agricultural development projects, incidents of violence by various actors, and displacement. It can provide useful information regarding patterns and cycles of movement between villages or within the region. As an early warning system, it can be used to alert humanitarian workers that there might be population movement given certain conditions, and it can assist in monitoring the human rights of refugees and displaced populations.

In the expectation that displaced people will not necessarily submit an eye-witness report to Ushahidi, CFMS has been developing a protocol to collect third-party reports, relevant and reliable data and academic research that will allow for a multi-layered understanding of the origin, condition and contributing factors of displacement. This is currently unavailable through other mapping technologies yet can provide data in a visual format to enable users to see the relationships between circumstances and displacement.

#### Challenges

The most basic challenge is data collection. The recent formation of the Commission for Population Movements led by OCHA to compare and consolidate data and the new Data Centre for IDPs run by UNOPS in DRC<sup>3</sup> will greatly improve knowledge about IDPs in DRC. However, before the data can become an effective source on Ushahidi, there needs to be a standardised methodology of data collection.

A particular problem of open-source mapping is that multiple first-hand reports of one incident can be submitted; the site must be effectively managed so that they do not appear as multiple incidents.

The problem of verifying the factual accuracy of a report is difficult, especially in remote regions, and requires building an on-the-ground trusted network of local NGOs. Although Ushahidi had been used successfully in Kenya to map reports of post-election violence, DRC presented a new challenge in that the Ushahidi team did not have established networks on the ground to either spread the

news about the new technology or verify incoming reports. They therefore created a new category of 'verified source' to differentiate these from reports coming into the system from unknown sources.

Although the problem of verification has not been resolved, CFMS has begun discussions with local NGOs and interested international organisations to address how best to build a network of local partners that can inform local populations about Ushahidi, provide resources such as internet connections, computers and satellite phones, and verify sources.

Although much of the local population is understandably still focused on survival, there is now a more developed network of local NGOs in the Kivus in DRC than there was in 2008-09 and, through training and education, local populations are now more aware of new technologies (although the problems of lack of electricity in remote villages, frequent electricity cuts even in cities and limited internet access persist). Since relaunching the Ushahidi DRC site, CFMS has been contacted by a number of organisations interested in collaborating or forming partnerships. Their main focuses are on using Ushahidi as an early warning system for sexual violence and in efforts at peacebuilding. There is no reason why these different objectives should not be compatible within Ushahidi.

Technology such as Ushahidi clearly has the capability to aggregate data on displaced populations. It is less clear, however, what the implications are of equipping local populations in situations of ongoing conflict with the ability to produce that knowledge in terms of their security. It is also not certain whether having access to more knowledge will better serve the protection and other interests of refugees and displaced populations.

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1. <http://www.ushahidi.com/>

2. Housed at the Buffett Center for International and Comparative Studies.

3. See 'The Data Centre for IDPs in North Kivu' by Laura Jacqueline Church at [www.fmreview.org/DRCongochurch.htm](http://www.fmreview.org/DRCongochurch.htm)