Ushahidi: From Crisis Mapping Kenya To Mapping the Globe

Vision and Motivation

Waves of violence unfolding across the country. Communities in fear of rioting, armed gangs and a government-imposed shoot-to-kill policy. Disorder and destruction continuing unchecked without an idea of when it would end. This was Kenya following the 2007 presidential elections. Incumbent President Mwai Kibaki was announced the winner on December 30; however, leading opposition candidate Raila Odinga claimed that ballots were rigged. Members of Odinga’s Luo tribe were infuriated, setting off decades-old tensions with Kibaki’s Kikuyu tribe. The initial outburst of chaos ushered in a turbulent period in Kenyan history, prompting Kenyan activist Ory Okolloh to send out a plea on her blog Kenyan Pundit: “Any techies out there willing to do a mashup of where the violence and destruction is occurring using Google Maps?” Okolloh’s simple query on January 3, 2008 inspired a group of bloggers to collaborate over the weekend to turn her dream into a reality. On January 9, Ushahidi, meaning ‘witness or testimony’ in Swahili, was born, enabling Kenyans, and people around the world, to report and map incidents of violence via SMS or the web.

Goals and Objectives

Okolloh had been covering the elections from inside Kenya but chose to leave once the violence started. The disconnect between local media coverage and information she received directly from her sources sparked the call for Ushahidi. She saw the need for those still inside the country to have information-sharing technology to communicate with each other and those seeking to help victims. For the release of Ushahidi, Okolloh announced on her blog, “We believe that the number of deaths being reported by the government, police, and media is grossly underreported. We also don’t think we have a true picture of what is really going on – reports that all of us have heard from family and friends in affected areas suggests that things are much worse than what we have heard in the media.”
Ushahidi allowed Kenyans to create a more accurate picture of the violence occurring. The platform is simple. As events occur in the field, witnesses send SMS messages to a designated phone number or submit a report online. Ushahidi administrators can view the reports, which are stored in a secure database. Administrators prioritize urgent messages, fact-check and confirm each submission before posting it in near real time. Each report is posted with a title, description, and most importantly, exact GPS coordinates onto an interactive Google map. Each report is categorized by type of incident – for example, fire, rape, or looting. The Ushahidi platform compiles full analytical reports and alerts that identify areas with high levels of activity. In addition, the platform can compile a full timeline of events. NGOs, relief workers and civic activists can easily access data to identify where assistance is needed and what type of response is required.

Leadership

Ushahidi was made possible by a group of Kenyan activists and tech experts who wouldn’t stand by idly as a crisis engulfed their country. Okolloh was born and raised in an impoverished, rural area of Kenya. According to her, “For most Africans today, where you live, or where you were born, and the circumstances under which you were born, determine the rest of your life. I would like to see that change, and the change starts with us... as Africans, we need to take responsibility for our continent!” Okolloh studied in the United States at the University of Pittsburgh for her undergraduate degree and then Harvard Law School for her JD. Following her law school graduation in 2005, she returned to Africa and established herself as a prominent blogger on Kenyan politics. In 2006, she co-founded Mzalendo: Eye on Kenyan Parliament. Mzalendo, which means ‘patriot’ in Swahili, is a volunteer-run watchdog site that posts information and articles on members of Kenya’s parliament.

Okolloh’s civic activism tied her in to a strong network of tech experts and Kenyan activists, including those who helped start Ushahidi. Erik Hersman, who grew up in Kenya and Sudan, is a technologist and author of the White African blog. In addition to Ushahidi, he has founded AfriGadget, a site which showcases creative tech solutions to problems in Africa. Co-founder and AfroMusing author Juliana Rotich grew up in Kenya and studied information technology in the United States before helping develop Ushahidi. David Kobia, despite being thousands of miles away in the United States, also contributed his expertise in software development to Ushahidi. According to Hersman, although the mapping technology was already about three years old, the Ushahidi team put it to a new, more dynamic, ground-breaking use.

Civic Environment

The bloodshed that prompted Ushahidi resulted from decades-old ethnic tensions in Kenya over land ownership and governance. Following independence from the British in 1963, land was left mostly in the hands of government trusts and political allies, not the original, pre-colonial owners. The unfair allocation of land, in addition to allegations of rampant corruption within Kenya’s post-colonial government, created rifts between the ethnic communities who benefited from their political connections and those who did not. Land ownership and governance were central issues in Kenya’s multiparty elections, the first of which was held in 1992. The 2007
elections were expected to be a close race between the two candidates, but no one had predicted that a post-election crisis would leave 1,000 Kenyans dead and 500,000 others displaced.\footnote{The Kenyan Blogs Webring, founded in 2004, supports Kenyan citizen and grassroots media by aggregating over 800 Kenyan blogs on a host of topics from politics to civil society to technology to personal experiences. Because internet content in Kenya was unfettered, the online community had an opportunity to step in and challenge the mainstream media’s narrative of political developments and the growing violence.}

Freedom of religion, education, assembly and press are provided for in the Kenyan constitution, and in 2007, Kenya boasted one of the most open media environments in Africa, with six private television stations, two FM radio stations and unrestricted internet access.\footnote{In 2007, over 40\% of Kenyans owned mobile phones, which were the only tool necessary to submit a report of violence.} However, when the presidential election results were announced, the government swiftly banned live TV and radio coverage of the ensuing chaos. Journalists covering the election were threatened with tear gas attacks and intimidated at polling stations. The ban presented an opportunity for non-traditional media to play a greater role in election coverage.

Although Internet penetration in Kenya was estimated at only 8\%\footnote{In 2007, over 40\% of Kenyans owned mobile phones, which were the only tool necessary to submit a report of violence.} there was already a rich blogging tradition in the country.\footnote{The Kenyan Blogs Webring, founded in 2004, supports Kenyan citizen and grassroots media by aggregating over 800 Kenyan blogs on a host of topics from politics to civil society to technology to personal experiences. Because internet content in Kenya was unfettered, the online community had an opportunity to step in and challenge the mainstream media’s narrative of political developments and the growing violence.} The Kenyan Blogs Webring, founded in 2004, supports Kenyan citizen and grassroots media by aggregating over 800 Kenyan blogs on a host of topics from politics to civil society to technology to personal experiences. Because internet content in Kenya was unfettered, the online community had an opportunity to step in and challenge the mainstream media’s narrative of political developments and the growing violence.\footnote{In 2007, over 40\% of Kenyans owned mobile phones, which were the only tool necessary to submit a report of violence.}

**Message and Audience**

Ushahidi’s developers envisioned the platform as an easy-to-use tool to empower and connect the general public. According to cofounder David Kobia, the platform is “an opportunity for everyone to create the narrative.”\footnote{The developers coordinated a grassroots communications strategy to reach a wide audience. As established bloggers, each of the developers had their own following to spread the word. In addition to the Internet, the Ushahidi developers utilized the country’s flourishing independent radio network to broadcast information on how to submit reports of violence. Combining radio and internet outreach expanded the project’s potential audience from less than 10\% to 95\% of the population.} In 2007, over 40\% of Kenyans owned mobile phones, which were the only tool necessary to submit a report of violence.\footnote{The Kenyan Blogs Webring, founded in 2004, supports Kenyan citizen and grassroots media by aggregating over 800 Kenyan blogs on a host of topics from politics to civil society to technology to personal experiences. Because internet content in Kenya was unfettered, the online community had an opportunity to step in and challenge the mainstream media’s narrative of political developments and the growing violence.} The developers coordinated a grassroots communications strategy to reach a wide audience. As established bloggers, each of the developers had their own following to spread the word. In addition to the Internet, the Ushahidi developers utilized the country’s flourishing independent radio network to broadcast information on how to submit reports of violence. Combining radio and internet outreach expanded the project’s potential audience from less than 10\% to 95\% of the population.\footnote{In 2007, over 40\% of Kenyans owned mobile phones, which were the only tool necessary to submit a report of violence.} During the post-election crisis, Ushahidi had over 45,000 Kenyan users.\footnote{In 2007, over 40\% of Kenyans owned mobile phones, which were the only tool necessary to submit a report of violence.}

Guest Ushahidi blogger Jason Nickerson highlighted the value of Ushahidi beyond map-making: “Beyond collecting and analyzing the data, there’s a need to ensure action is taken to address the issues Ushahidi identifies. Interactions with the search and rescue community during past events have demonstrated the value of the platform for meeting their needs.”\footnote{Guest Ushahidi blogger Jason Nickerson highlighted the value of Ushahidi beyond map-making: “Beyond collecting and analyzing the data, there’s a need to ensure action is taken to address the issues Ushahidi identifies. Interactions with the search and rescue community during past events have demonstrated the value of the platform for meeting their needs.”} Organizations such as MMC Outreach were able to identify affected communities in need of hot meals and clothing.\footnote{Guest Ushahidi blogger Jason Nickerson highlighted the value of Ushahidi beyond map-making: “Beyond collecting and analyzing the data, there’s a need to ensure action is taken to address the issues Ushahidi identifies. Interactions with the search and rescue community during past events have demonstrated the value of the platform for meeting their needs.”} Peace Caravan, a local organization, used Ushahidi to identify areas where its peacebuilding efforts were most needed. Peace Caravan, run by Rachel Kung’u, is a project to promote development and education through the formation of youth community groups. Kung’u spoke about the usefulness of Ushahidi’s communication and information for Peace Caravan: “It gave us the updates, the people sharing the information from various communities on what is happening. Then we were able to get the right information and use it to run the caravan.”\footnote{Guest Ushahidi blogger Jason Nickerson highlighted the value of Ushahidi beyond map-making: “Beyond collecting and analyzing the data, there’s a need to ensure action is taken to address the issues Ushahidi identifies. Interactions with the search and rescue community during past events have demonstrated the value of the platform for meeting their needs.”} Meanwhile, international and Kenyan diaspora organizations could use the platform to determine appropriate funding for relief efforts.
Outreach Activities

Once the post-election violence calmed down, the Ushahidi team worked to expand the platform’s reach. In May 2008, Ushahidi was awarded first place in a NetSquared Challenge for innovative mashup projects using Web and mobile-based technologies focused on social change. The award money provided enough funding to create Ushahidi 2.0, an open-source version of the original platform. The open-source platform allows anyone to adapt Ushahidi to meet their local needs. The platform has been utilized around the world for a variety of causes. In fact, by 2011, the platform had been deployed over 11,000 times. In India and Mexico, the platform has been used to monitor elections. Ushahidi enabled relief organizations to organize rescue efforts during floods in Thailand and Pakistan and after the devastating 2010 earthquake in Haiti. In Egypt, activists have developed HarassMap, a system of monitoring sexual harassment and violence against women. Indonesian activists are using the platform to track crime in the capital city of Jakarta.

The Ushahidi site provides users with deployment toolkits with comprehensive instructions on how to utilize the platform. One of the major challenges of crowd-sourced information is data authenticity. Ushahidi has developed a verification guide to coach users on authenticating reports. Additionally, Ushahidi has launched a new platform, Swift River, which can quickly analyze and verify large amounts of crowd-sourced data. Swift River is intended to make it even easier for NGOs and humanitarian organizations to respond in emergency situations. Ushahidi also hosts Crowd Map, a version of the Ushahidi platform that doesn’t require downloading and can be deployed within minutes to monitor elections or map a crisis. Ushahidi has attracted partnerships and funding from diverse and powerful organizations such as Google, Mozilla Foundation, Knight Foundation, Digital Democracy and the United States Institute for Peace. Although Ushahidi began as an ad-hoc group of bloggers reacting to a local crisis, it has grown into a full-fledged non-profit tech organization helping people across the globe.
Learn More

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“Ushahidi Haiti.” YouTube. 7 February 2010.

“What is Ushadidi?” YouTube. 27 November 2009.
Footnotes

[9] Ibid. 2.
[14] “ITU ICT EYE.”