

# SwiftRiver

PROJECT	GRANTEE	INNOVATION	GRANT
SwiftRiver	Ushahidi	An open source platform that helps identify trends and verify user-generated content emerging from mobile phones and social media	\$250,000

Ushahidi—a Knight News Challenge Winner in 2009—won the News Challenge again in 2011 to build on its past efforts to collect citizen-generated information originating from global crisis situations, such as the Kenyan election crisis in 2008 and the earthquakes in Haiti and Japan. As news events unfold, users of mobile phones flood the internet with firsthand accounts of these events. SwiftRiver aimed to help curate and verify this information by parsing it and evaluating its sources.

## THE INNOVATION

As the number of people who contribute newsworthy content grows exponentially with the growing use of mobile technology, the challenges facing journalists have shifted increasingly from problems of distribution to problems of discoverability and trust. Mobile phones and the social web allow citizens to report on major events and crisis situations around the world, but few tools exist to help journalists filter and differentiate this information based on accurate and trustworthy sources. Working across email, Twitter, web feeds, and text messages, SwiftRiver aimed to allow journalists, NGOs, government agencies, bloggers, and other organizations to identify trends and to evaluate information based on its creator's reputation.

## IMPLEMENTATION

Ushahidi encountered a number of challenges in the development of SwiftRiver. Among the largest of these was building the technical infrastructure needed to store and sort massive amounts of data. Hiring engineers with the technical expertise to build systems of this scale required more funding than Ushahidi had anticipated. At the outset, Ushahidi hired a

small team of US-based engineers in Silicon Valley to develop the SwiftRiver platform, but it was unable to afford them as time went on. SwiftRiver's next developers were based in Kenya and worked remotely, causing challenges as the teams worked across time zones.

The project team also realized that the technology needed to create a simple tool to validate sources within massive streams of social media data may not be available or easily developed, given the team's financial constraints. As such, the team's conception of SwiftRiver evolved. Instead of focusing on creating a stand-alone platform that relied upon an automated system for verifying citizen-generated information, the SwiftRiver team focused on creating a set of tools to crowd-source the task of filtering citizen-generated information. These tools would exist within Ushahidi's existing suite of services. The most popular of the six tools that ultimately comprised the SwiftRiver platform included its semantic tagging and geolocation tagging APIs. SwiftRiver's semantic tagging application, Chambua, allows users to analyze text and extract words and terms that can be classified as people, places, and organizations. It can also recognize nationalities, religions, expressions of time, and monetary values. Chambua cannot fully and completely verify sources in a data stream, but it provides users with a tool that helps to sort and organize the data—which is a first step toward making sense of it.

Ushahidi released SwiftRiver publicly as an open source product available as part of its existing suite of tools in June 2013. Interest and demand for the tools remains high, and Ushahidi anticipates paying customers or the larger developer community will support and

further develop the platform. The code generated and lessons learned through its development will help inform version three of the Ushahidi platform, scheduled to be built in 2014.

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## REACH AND OUTCOMES

SwiftRiver aimed to create an open source platform that filters information about major events and crisis situations, and identifies and verifies the most authoritative and accurate of these accounts. By doing so, it aimed to increase the viability of crowdsourced data collection as a methodology and practice for journalists. The project succeeded in building tools that help crowdsource the task of filtering large data sets, but it fell short of developing a tool that can filter and verify accurate sources within massive, real-time streams of data on its own. Through the development process, the SwiftRiver team realized found that it underestimated the technical challenges in creating a simple, mechanical tool for validating sources and making sense of massive data sets. These challenges proved to be insurmountable for Ushahidi, given its financial constraints.

The team initially focused on marketing SwiftRiver to larger organizations, but soon scaled back to targeting smaller municipalities.

The largest deployment of SwiftRiver to date is in Pierce County, Washington. In November 2012—even prior to the public release of SwiftRiver as part of Ushahidi’s existing suite of tools—Ushahidi began collaborating with Pierce County to develop FirstToSee, an application that uses the SwiftRiver platform to provide emergency managers in the Puget Sound area with an efficient and effective way of responding to citizen-reported incidents on social media. FirstToSee will eventually be made available to other regions outside of Puget Sound. Pierce County also uses SwiftRiver to keep tabs on other relevant social and cultural events and conversations, positioning the county to better engage and respond to citizen voices in a transparent, proactive, and interactive manner.

Although the demand for and interest in a more advanced tool that validates sources on its own remains high, Ushahidi lacks the funding and staff needed to further build, extend, and manage the project. SwiftRiver is currently part of Ushahidi’s business products toolkit, available for deployment by paying clients. Using revenue generated by SwiftRiver, Ushahidi plans to eventually develop the existing tool into a cloud-hosted platform.

