NextDrop

PROJECT	GRANTEE	INNOVATION	GRANT
NextDrop	NextDrop	An interactive voice response- and text message-based service that notifies residents of Hubli-Dharwad, India when their water is available	**$375,000**

One million residents of Hubli-Dharwad, India, have water piped to their homes. Water is only available through those pipes for a few hours each week, however, and some residents must wait up to eight days between water deliveries. Each of India's major cities faces similar water scarcity, affecting more than 100 million people. Project lead Anu Sridharan and her team created NextDrop to provide an immediate, accurate way for residents to know when water will be available. Leveraging the widespread adoption of mobile phones in India, NextDrop notifies residents when water will be available in their communities.

THE INNOVATION

NextDrop is a platform that uses SMS messaging and interactive voice response (IVR) technology to notify residents of Hubli-Dharward, India just before their water becomes available. Prior to this service, residents were forced to waste hours each day waiting for water as printed newspaper notifications about water deliveries were often too outdated and inaccurate to be useful. NextDrop partners with the valve men who control a community's infrequent flow of water and trains them to use the mobile-based platform to notify neighborhood residents via SMS when the water is turned on. NextDrop asks residents to respond, confirming that the water has arrived. The project received News Challenge funding to launch NextDrop's work in Hubli and to develop the platform so that it might be customized and implemented elsewhere as a way of distributing other types of real-time community information.

IMPLEMENTATION

NextDrop launched in September 2011. It faced its first significant challenge when the Indian government passed regulations that same month restricting companies from sending bulk messages for commercial purposes between the hours of 9:00 p.m. and 9:00 a.m. The project team faced a decision: either stop sending SMS messages between 9:00 p.m. and 9:00 a.m., or gain an exemption from government authorities that would categorize NextDrop's messages as "transactional," rather than "commercial." Typically, navigating the necessary bureaucratic hurdles to accomplish this would have taken months. NextDrop, however, had developed close partnerships with its SMS provider Netcore and the Hubli-Dharwad water utility. Together with these partners, NextDrop discovered that the new regulations did not apply to SMS messages sent by government agencies. And because the actual senders of NextDrop SMS messages were valve men employed by the Central Water Commission, this exemption could apply to NextDrop. Working with Netcore and its partners at the water authority, the team gained this exemption and returned to service after being shut down for only 12 days.

The project's success was similarly threatened by a sharp increase in SMS prices. The cost of sending a single text message increased five times in NextDrop's first few years of operation, forcing the team to rethink its business model and find ways of cutting extra costs. NextDrop decided to halve its text messaging by sending only one message to users an hour before their water became available.

Despite these challenges, NextDrop was able to continue building upon its work in Hubli. One of the team's key discoveries was that many customers preferred to use IVR technology as opposed to SMS messages. Although many of NextDrop's customers could read SMS messages, many lacked the literacy skills to write an SMS to confirm the arrival of their water. More users were willing to pay for NextDrop's IVR notifications than expected, and the project's response rate among residents rose from 10 percent to 30 percent after introducing a "missed call" option. Through an external impact analysis, the project team also found that it was having the greatest impact on those who could not afford to pay others to collect their water while they themselves were away at work. As a result, NextDrop pivoted toward marketing to the working poor (and expanding its services to Bangalore, to better target this group) and moved to a freemium model, no longer charging customers for its most basic SMS water notification services.

By early 2014, NextDrop has proven the value of its service, and it is in the process of strengthening its team's capacity to build relationships with government officials and to brand and market the platform more widely. It is also in the process of becoming a paid, two-way platform for citizen-government communications. The project is working with Karnataka Water Supply and Sewage Board and the Bangalore Water Supply and Sewage Board to pilot the use of NextDrop in collecting feedback and reports of pipe damage and outages from NextDrop's users. Although the project team is still early in the process of developing these services for utility companies, NextDrop believes its platform will prove replicable for other government services, and it is pursuing long-term contracts with water utilities as an ongoing source of revenue. The project team is also early in the process of exploring the possibility of marketing the NextDrop platform for politicians, who could use it to communicate with, and gain feedback from, their constituents.

REACH AND OUTCOMES

NextDrop aimed to be in use by at least half of Hubli's households—around 33,000—by the end of its two-year New Challenge award. It did not meet that target, but it has nonetheless shown strong signs of growth. By March 2014, about 17,300 households in Hubli had registered with the service. Since transitioning to a "freemium" model, the project expects to reach its target within in the near future. The Karnataka Water Supply and Sewage Board and Bangalore Water Supply and Sewage Board have both purchased the platform's utility services, and NextDrop is in talks with the Hubli-Dharwad Municipal Corporation about eventually scaling water alerts service to every Hubli household. Other cities' commissioners have also approached the project team, expressing an interest in replicating the NextDrop model for other government services such as power and sanitation.

Despite encountering various technical difficulties which resulted in instances of late and intermittent water notifications, NextDrop has largely been successful in providing reliable notifications for water delivery. Its external impact assessment showed that when used correctly, NextDrop allowed users to avoid contaminated groundwater, assisted them with rationing and water planning, and provided them with additional free time and relatively greater water security. In addition to providing water notifications, NextDrop's utility services stand poised to improve communication between citizens and the Indian government, and ultimately improve Hubli's infrastructure for water access and distribution.

The project intends to sustain itself by engaging in long-term contracts with water utilities, using its platform to collect feedback and reports of pipe damage and outages from NextDrop's users. NextDrop also received funding from its partnerships with the Social Capital Partnership, Unilever's Young Entrepreneurs Awards, and the Global System for Mobile Association, an association of mobile operators and related companies. Ultimately, NextDrop expects to eventually serve all 1.2 million citizens in Hubli-Dharwad and to scale to the entirety of Bangalore. Project lead Anu Sridharan hopes to scale to the entire state of Karnataka, India by 2015, and to scale globally, to other regions without continuous access to water, by 2018.