Christoph Gorder, Chief Global Water Officer, charity: water [00:00:03] Water is fundamental to life. Life doesn’t exist without water and it is the basic foundational building block of all development. 

Onscreen text: 785M people live without clean water. That’s 1 in 10 of us. Source: CDC

Christoph Gorder, Chief Global Water Officer, charity: water [00:00:13] It’s very difficult for us to imagine that education or health or gender equity or democracy can thrive without clean water. Our mission at charity: water is to give access to clean, safe drinking water to people who need it around the world. But our vision is to reinvent charity. We wanted to build the charity of the future. And when we looked out there for models and inspiration, we didn’t find it in the charities of our parents. We found it in the startups of Silicon Valley who were using technology to revolutionize the world.

Onscreen text: In Africa and Asia, women walk an average distance of 4 miles every day to gather water. Source: Global Water Institute

Christoph Gorder, Chief Global Water Officer, charity: water [00:00:50] There are three billion people around the world who rely on very small community managed water points for their clean water, and they’re in very tough operating conditions. So there’s a failure rate out there of water systems, which is just unacceptable for us, because if we’re building new water points and water points are failing, we’re sort of taking two steps forward and one step back.

Onscreen text: charity: water has funded clean and safe water for more than 11 million people around 28 countries Source: www.charitywater.org

Christoph Gorder, Chief Global Water Officer, charity: water [00:01:13] charity:water has funded forty four thousand projects across 28 countries and we know the field very well. So we thought there has to be a better solution for helping keep water flowing at all of these remote locations. And so we looked around and looked to I-O-T devices to try to figure out how could we develop a sensor that could be retrofitted on the water points and provide us the data of how the water flows. We deployed thousands of sensors to the field in our first pilot program and the data came in over the course of the last three years. So we have several hundred million bits of data out there and the data is really noisy. And so we had something that we thought had enormous value in it, but we didn’t have the tools or the expertise to be able to actually mine it and understand it and analyze it. We started a conversation with Accenture about how to collaborate on a project where Accenture could use their best and brightest resources to help us do the data analysis to understand what we were seeing. To understand trends and events in all of this...
data and ultimately help us develop the building blocks for a predictive algorithm that will tell us when wells are going to break down before they even break down.

**Zaid Tashman, Data Science Researcher, Accenture Labs [00:02:34]**
There’s about 3000 of these water pumps in Southern and Northern Africa with a sensor connected to the cloud. The data coming from all these three thousand sensors was data that we’ve analyzed, a total of 32 million data points. From that amount of data, we were able to extract patterns and understand how people use these water networks. We were also able to detect anomalies, so potential failure of the pump or changes in behavior of how people use it...and that was one of the building blocks of a predictive maintenance application that charity: water is now looking into implementing.

**Sonali Parthasarathy, R&D Manager, Accenture Labs [00:03:14]**
So today, if a pump fails, people have to walk several miles to a neighboring village to get clean drinking water. We hope that with the work we’ve done with charity: water, we’ll be able to solve that problem.

Onscreen text: Accenture Labs is proud to support innovative non-profits like charity: water and harness the power of emerging technologies to improve lives.