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CROWDSOURCED MAP OF SAFE DRINKING WATER

 TELECOMMUNICATIONS

Community app allows communities to test their own water supply and share the results, creating a map of safe drinking water.

Just over two years ago, in April 2014, city officials in Flint, Michigan decided to save costs by switching the city's water supply from Lake Huron to the Flint River. Because of the switch, residents of the town and their children were exposed to dangerous levels of lead. Much of the population suffered from the side effects of lead poisoning, including skin lesions, hair loss, depression and anxiety and in severe cases, permanent brain damage. Media attention, although focussed at first, inevitably died down. To avoid future similar disasters, Sean Montgomery, a neuroscientist and the CEO of technology company, Connected Future Labs, set up [CitizenSpring](#).

CitizenSpring is an app which enables individuals to test their water supply using readily available water testing kits. Users hold a test strip underneath running water, hold the strip to a smartphone camera and press the button. The app then reveals the results of the test, also cataloguing the test results and storing them in the cloud in the form of a digital map. Using what Montgomery describes as "computer vision," the app is able to detect lead levels in a given water source and confirm whether they exceed the Environmental Protection Agency's "safe" threshold. The idea is that communities can inform themselves about their own and nearby water supplies in order that they can act as guardians of their own health. "It's an impoverished data problem," says Montgomery. "We don't have enough data. By sharing the results of test[s], people can, say, find out if they're testing a faucet that hasn't been tested before."

CitizenSpring narrowly missed its funding target on Kickstarter. However, collective monitoring can work. We have already seen the power of communities harnessed to [crowdsource pollution data](#) in the EU and [map conflict zones](#) through user-submitted camera footage. How else can communities be empowered to supervise their own safety?

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Email: info@connectedfuturelabs.com

Website: www.connectedfuturelabs.com