Artificial intelligence tackling global water shortages

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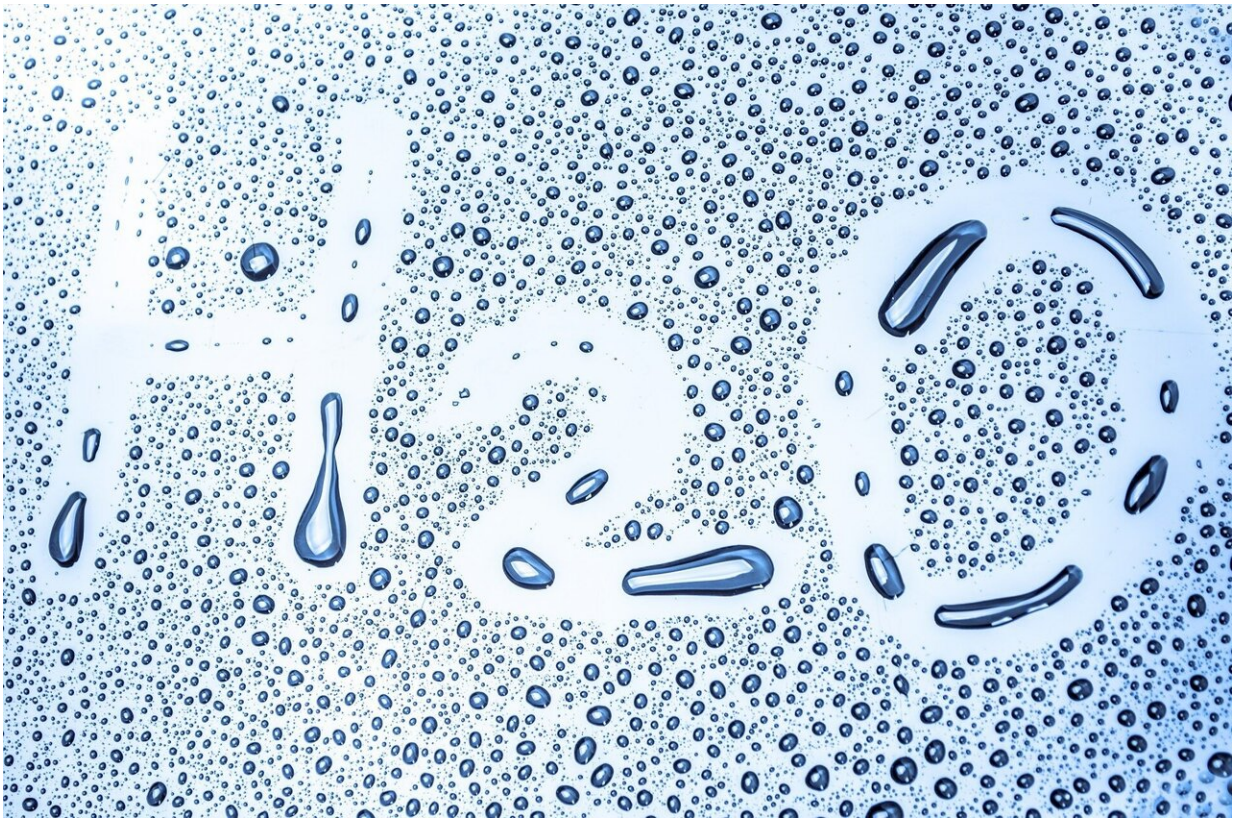

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A company using artificial intelligence to save billions of liters of water has partnered with University of the West of Scotland (UWS) to further enhance its technology. FIDO Tech is helping communities affected by

water shortages and restrictions around the world—working with utility companies to protect UK resources and protecting water supplies for communities in Australia, America, Thailand and beyond.

The remote community of Murray Island, in the Torres Strait, Australia, utilized the FIDO AI system as part of an integrated leak detection strategy that incorporated multiple technologies and partners—including Torres Strait Regional Council and global infrastructure asset management company Asset Life Alliance—resulting in severe water restrictions being lifted for the first time in more than 20 years.

UNESCO called reducing water leaks a "low or no regrets" response to climate change because it ties into adaptation and mitigation, with clean water and sanitation for all being Goal 6 of the United Nations' Sustainable Development Goals.

Ninety percent of underground pipe leaks never show above ground, and around 30% of the world's treated drinking water is lost from pipeline networks before it ever reaches our taps.

Victoria Edwards, CEO of FIDO Tech, said, "At least a third of the world's piped water is lost to leaks. This is a tragedy, but it is also an amazing opportunity. Leakage is a cheap, low-carbon source of water, but until now, it has always been in the 'too hard to do' box. New disruptive technologies like FIDO AI are the only way to drive down leakage and non-revenue water and to challenge the climate change disaster that is pushing our communities towards Day Zero, the day communities run out of water."

Professor James Miller, Principal and Vice-Chancellor of the University of the West of Scotland, added, "As climate change continues to have a catastrophic effect across the globe, there has never been a greater need to foster powerful internationally impactful collaborations and harness

the power of research and new technologies to address global challenges."

The groundbreaking system works by placing a small sensor on an asset—such as a water hydrant—and through accessing a user-friendly application on a mobile phone, simultaneous measurements are collected and uploaded for auto processing. The technology provides a simple and effective cloud correlation method, using innovative AI developed in collaboration with UWS, to acoustically map the exact location of the leak within seconds.

Professor Milan Radosavljevic, Pro Vice-Chancellor for Research, Innovation and Engagement at UWS, said, "This project is an exemplar of what can be achieved when industry and academia collaborate.

"The pioneering project is making a real difference to communities being able to thrive as well as contributing significantly to addressing the United Nations Sustainable Development Goals.

The technology is being used by companies worldwide as part of their water leak detection and mitigation measures.

FIDO Tech and UWS worked together through a Knowledge Transfer Partnership program.

The impact of AI on water management is expected to expand further. As technology advances, AI systems will become more sophisticated and capable of enhancing overall water infrastructure management.

Professor Muhammad Zeeshan Shakir, of UWS's School of Computing, Engineering, and Physical Sciences added, "This project shows the life-changing potential of AI and sensing technology and how it can be deployed to protect our natural resources, such as water and help

communities who are in need of innovative solutions.

"It's exciting to see the technology making a direct impact and solving grand challenges, addressing UN SDG 6—water security. We are delighted to be continuing to work with FIDO Tech, through our sector leading KTP program."

Provided by University of the West of Scotland