

THE EXTRA POINT

BY JERRY ROBERTS



1789 Technology and the Incredible Time in Which We Live

Almost every day, we wake up to the news of Guam's politicians fighting about something or other, and the incessant barking that goes with it. Nationally, the immigration battles have led to rioting in the streets. Everybody talks about "the law," but seem to have different ideas on what that law means...and if it's okay to just not follow what you don't like. And yet, there are other things happening that reinforce the thought that you and I are living in a truly amazing time. I'm Jerry Roberts and we're going to talk about two very different forms of technology that you might want to tell your friends about today. That's coming next, on The Extra Point.

A 45-year-old California man lost his ability to speak clearly after developing amyotrophic lateral sclerosis, otherwise known as ALS, a disease which damages the nerves that control muscle movements, including those needed for speech. He was able to make sounds but his speech was slow and unclear.

After five years, he underwent surgery to insert 256 silicon electrodes in a brain region that controls movement. Could the electrodes capture signals and convert them to speech that could be understood?

The system — known as a brain-computer interface (BCI) — used AI to decode the man's brain activity as he attempted to speak.

Today, this man has had his speech restored by the BCI system, and his ability to be understood is at the 60% level. He is even able to sing. It's truly extraordinary, and nothing short of life changing.

Both of my maternal grandparents suffered major strokes in their 80s, losing the ability to communicate verbally. They would try, but it was nearly impossible to make out words. I would visit them after school and couldn't pick out words from the sounds being made.

This breakthrough may one day soon end this problem for all who are plagued by it.

The second techno breakthrough is one that might have a clear application here in Guam.

In the United States, more than 46 million people experience water insecurity, living with either no running water or water that is unsafe to drink. Globally, that number swells to 2.2 billion.

The thing is, water is literally all around us. I'm not referring to the water in the oceans or in clouds. Water, drinking water, is in the air.

MIT engineers say that the Earth's atmosphere contains millions of billions of gallons of water in the form of vapor. If this vapor can be efficiently captured and condensed, it could supply clean drinking water in places where people can't get it.

The MIT team has developed and tested a new atmospheric water harvester that captures water vapor and produces safe drinking water. Does that sound promising so far? Hang on, it gets better.

MIT's device produces water across a range of relative humidities, including dry desert air. They do it using a window-sized vertical panel, that doesn't require a power source.

The engineers were able to harvest water in Death Valley, CA., the driest region in North America. Even better news, the more humidity you have, the more water you get. Now, what's Guam got a lot of, each and every day?

Did you say "humidity"?

The team involved suggested that multiple vertical panels could provide a continual source of fresh, clean drinking water for a family.

How soon can you get your hands on this amazing water producer? It'll probably be a while, but one day you won't have to buy water purification machines, or lug heavy bottles from the store. Your water will appear out of thin air. (Con't.)

Technology is a double-edged sword. While AI is projected to take away millions of jobs, it will also improve the quality of life in ways we can only now begin to imagine.

There you have it, a little bit of innovation for our Friday morning. Something to look forward to.

That's the Extra Point. Be responsible and make something good happen today. For 93.3FM, the Ray Gibson Show, and First Hawaiian Bank, I'm Jerry Roberts.

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