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Infrared Camera May Aid Communication in CP Patients

A Canadian professor has recently invented a technology that allows people with cerebral palsy to better communicate.

Many people with moderate to severe cerebral palsy have muscle and mobility issues that prevent them from forming and speaking words. University of Toronto Professor Tom Chau spent two years leading a team of researchers and scientists to develop the technology.

The technology comprises an infrared camera that catches heat levels on an individual's face. Chau and his colleagues discovered that when a person's mouth is open and air is circulating, the heat levels increase.

How does the technology work? Basically, the camera is linked to a computer program that is currently used to help those with mobility issues type words. A keyboard-like grid appears on the computer screen. A cursor slowly moves across the grid. When the cursor lands on the letter the user wants, he or she opens his or her mouth, increasing the level of heat. When the infrared camera detects this increase in heat, it sends a signal to the program to choose the letter the cursor is on.

According to Chau, who holds the Canada Research Chair in pediatric rehabilitation, about 400,000 people would benefit from this technology. Many of those who would benefit would be children with cerebral palsy, as well as children with other types of brain injury that result in mobility issues.

A 27-year-old man, Dung Le, recently became the first person to try this technology. Using the technology, Le was able to express his first word, which was "Mother."

Researches claim the new technology will be simple to use for those with a wide degree of disability, and is easier to use than many other communication technologies currently on the market. The device, which

IS EXPECTED TO COST APPROXIMATELY $2,000, WILL ALSO BE RELATIVELY AFFORDABLE.