Speech Accessibility Project begins recruiting people who have had a stroke

By Meg Dickinson

The Speech Accessibility Project has begun recruiting U.S. and Puerto Rican adults who have had a stroke.

Those interested can sign up online.

Funded by Big Tech companies Amazon, Apple, Google, Meta, and Microsoft, the University of Illinois Urbana-Champaign aims to train voice recognition technologies to understand people with diverse speech patterns and disabilities. The project is also recruiting adults with Parkinson's disease, Down syndrome, cerebral palsy, and amyotrophic lateral sclerosis.

"A stroke can cause big changes, including changes to your ability to speak," said Mark Hasegawa-Johnson, the project's leader and a professor of electrical and computer engineering at Illinois. "Our goal is to teach AI to understand you the way you speak right now, so that you can use AI to help you on the job or in activities of daily life. The Speech Accessibility Project is about empowerment; the potential for empowerment of people post-stroke is huge and wonderful."

The project has partnered with Lingraphica's research team to recruit people who have had a stroke. Mentors will connect with those who want to participate, screen their speech, and help them understand and consent to participate.

Shawnise Carter, Lingraphica's senior research manager and a speech language pathologist, said she's thrilled to join the project and called it "ambitious and necessary."

"It is essential for individuals with communication impairments to have access to technology in a way that can suit their needs," Carter said. "The hope is that it will allow people who have had a stroke to access smart devices and smart technology while decreasing frustration resulting from voice recognition technology not recognizing impaired speech."

Such technology doesn't currently account for people with speech impairments, she said.

"Creating a database that considers this is a huge contribution to the field of communication sciences and disorders and more research of this nature should continue," she said.

Clarion Mendes, a clinical assistant professor of speech and hearing science at Illinois and a speech language pathologist, added that the Speech Accessibility Project could also improve quality of life for family members and loved ones of people who have had a stroke.

"Communication difficulties associated with a cerebrovascular accident, commonly known as stroke, are diverse in both their severity and how they impact individuals and their families. Speech, language, and cognitive processes may be affected," Mendes said. "Including stroke survivors with aphasia and their caregivers in the Speech Accessibility Project is an exciting new chapter. There's outstanding potential for increasing quality of life for stroke survivors and decreasing caregiver burden."