

Nemours, Therapy Box create app for kids, adults with speech deficits to use own voices

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Ryan recorded more than 800 sentences to help build Katie's ModelTalker voice. Katie's own speech sounds were recorded and mixed with Ryan's speech to provide a personal synthetic voice for Katie. Credit: Hassell family

The UK-based Therapy Box has released the first app that allows people who have limited vocal ability or are losing their voices due to ALS and

other disabling conditions to replace generic text-to-speech synthesis with a synthesizer based on their own voice. The app breaks new ground via the integration of ModelTalker, a program developed by Tim Bunnell, PhD and colleagues at the Nemours Speech Research Laboratory in Wilmington, DE.

Implementing ModelTalker voices into usable solutions is a new and virtually unexplored field that has wider implications than someone just being able to use an [app](#) to communicate. Predictable 4 is the first iOS app to use ModelTalker voices, greatly influencing the lives of those with communication difficulties.

In the UK, Predictable user Peter Pierce, who has ALS, had banked a ModelTalker voice in 2009 when he recognized his ability to speak would soon decline. Fearing that he would have a "Stephen Hawking-type, robotic, synthesized voice," Pierce created a ModelTalker voice while he still had time. Using Predictable for about 20 months, Peter has found it increasingly helpful as his speaking ability diminishes and the fatigue associated with ALS increases. Peter described his use of Predictable with ModelTalker as "liberating."

In the U.S., Katie Hassell, 10, of Garnet Valley, PA, has developmental disabilities that impair her speech. She can use her voice but it's often difficult for others to understand her. At the Nemours speech lab, her brother Ryan, 11, recorded some 800 sentences that will be used to build a synthetic voice for Katie. In addition, Katie's speech sounds will be mixed with Ryan's recordings. "The software enables us to blend Katie's pitch and unique speech features with Ryan's intelligible [speech](#) thus creating a ModelTalker voice that will allow her to converse and convey Katie's vocal identity," said Dr. Bunnell.

Dr. Bunnell added, "It is very gratifying to be able to provide ModelTalker voices on the app. As a pediatric healthcare system with a

significant special needs population, Nemours is always looking for ways to reach children who may benefit from new assistive technologies. It's exciting to see our research efforts go from the lab to the iPad."

Rebecca Bright, co-founder of Therapy Box said: "Everyone's voice is personal; it defines who we are and is part of what makes us unique as human beings. Previously, those who can no longer speak, for whatever reason, could use an 'off the shelf' communication tool featuring a generic voice, which in many cases does not reflect the age or local dialect of the person. Stephen Hawking's synthetic voice, for example, has an American accent. The latest app means these people can use their own voice, or a close approximation of their [voice](#), so that they continue to sound authentically like themselves when they do not have the power to communicate verbally."

This game changing app is available on iTunes at an accessible price point to reduce barriers for those who most need it. Predictable 4 costs \$140 in the U.S. It is simple to download and access using a tablet or computer.

More information: therapy-box.co.uk/predictable.aspx

Provided by Nemours

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