

# App-based machine learning enabling persons with speech disabilities to be understood

## ISRAEL/VOICEITT SPEECH RECOGNITION

In 2018 the startup company Voiceitt, based in Tel Aviv, Israel, introduced a speech recognition app for persons with speech disabilities. With machine learning, the smartphone app identifies the unique speech patterns of its users and enables them to communicate with family and friends without an intermediary. Moreover, Voiceitt developed an interface enabling other companies with voice-enabled products and services to make their products accessible. In 2021, Voiceitt was available in app stores and had hundreds of users worldwide.

### Problem targeted

Most speech control IT-solutions on the market today do not cater to people with speech disabilities.

### Solution, innovation, and impact

Voiceitt's speech recognition app is designed for individuals with non-standard speech. It has two main functions: Voiceitt Talk and Voiceitt Home. The app's AI-component enables it to continuously develop its Automated Speech Recognition (ASR) capabilities by learning to identify speech patterns from specific voice samples around the world and by analysing individual users' speech patterns, including utterances, breathing pauses, and more. The more people who use the app, the larger the corpus of voice samples and, subsequently, the smarter and more

**“Voiceitt improves independence and quality of life for people with disabilities, and those who care for and about them.”**

Sara A Smolley, Co-Founder

effective the AI technology becomes. The app allows users to communicate directly with other people, such as family and caregivers, in their own voice and speed. The Home function relates to Alexa smart home devices, enabling users to perform daily tasks such as switching lights on and off or watching TV by using their voice commands. From 2018 to 2021 the Voiceitt user base grew from 12 individuals in a small pilot to 200 beta testers to several hundreds of users worldwide.



Giving back control to those with speech impairments.

### Outlook, transferability, and funding

A funding round in 2020 drew such investors as M12 (Microsoft's Venture Capital Fund), Amazon Alexa Fund, Connecticut Innovations, AARP, and others. By 2021, Voiceitt raised more than \$17 million. The company's business model is based on license sales and its API business – when other companies integrate Voiceitt technology with their existing products. Voiceitt will expand its user base, particularly among health care professionals who use the app to communicate with their clients and patients, making them accessible to people with speech and motor disabilities. The company will also combine the app with more products and services offered to persons with speech impairments.

### FACTS & FIGURES

Start: 2018

- Voiceitt gives users with speech disabilities the possibility to express themselves in their own voice.
- \$17 million had been raised by 2021 for the further development of the app.
- *A practice related to ICT.*



Ms. Sara Smolley

sara@voiceitt.com – www.voiceitt.com