

Introduction to SpeakUnique

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WELCOME TO SpeakUnique

About Us

SpeakUnique are a voice banking company based in Edinburgh, UK. We create synthetic voices for use in communication aids by people who have lost, or will lose, the ability to speak as the result of a medical condition.

SpeakUnique began as a University of Edinburgh research project, when an unmet need was identified to provide personalised synthetic voices simply and quickly, and also to those with impaired or unintelligible speech. For 8 years, the project operated within the Euan MacDonald Centre for Motor Neuron Disease Research and the Anne Rowling Regenerative Neurology Clinic, where the technology was developed and refined. The research project benefited from support from the Medical Research Council, Motor Neurone Disease Association and Scottish Government.

In June 2020, SpeakUnique was formed as a University of Edinburgh spin-out company, to offer voice banking technology to those who could benefit. We are a multi-disciplinary team comprising speech scientists, a speech and language therapist, and app and web developers.

Mission Statement

Delivering personalised synthetic voices to those who have lost, or will lose their speech due to medical conditions, through exploiting world-leading academic research in informatics and clinical science.

Stay in touch

We'd love to keep in touch, please follow us on social media @SpeakUniqueVB



Voice Banking

Overview

Voice banking is the process of creating a synthetic version of an individual's voice, based on a recording of their speech. The personalised synthetic voice can then be used on a device (such as an iPad, tablet or specialist communication aid) using "text-to-speech" software where a typed message can be spoken aloud in the synthetic voice. It can benefit people who are at risk of, or who have lost their voice due to a medical condition. Voice banking allows an individual to create their own synthetic voice so they can retain part of their identity, even when natural speech is no longer possible.

Voice Banking with SpeakUnique

SpeakUnique has developed state-of-the-art voice banking technology to make voice banking accessible to people with a range of speech needs.

We offer three distinct voice banking services:

1. **Voice Build** is for people who have not yet experienced changes in their speech and wish to create a synthetic version of their voice;
2. **Voice Repair** is for people who have already noticed a deterioration in their speech, such as slowness, slurring or a change in vocal quality; we can repair this damage in the synthetic voice; and
3. **Voice Design** can be used either to create a synthetic voice from old recordings or use voice donors to create a synthetic voice that matches the desired regional accent, age and gender.

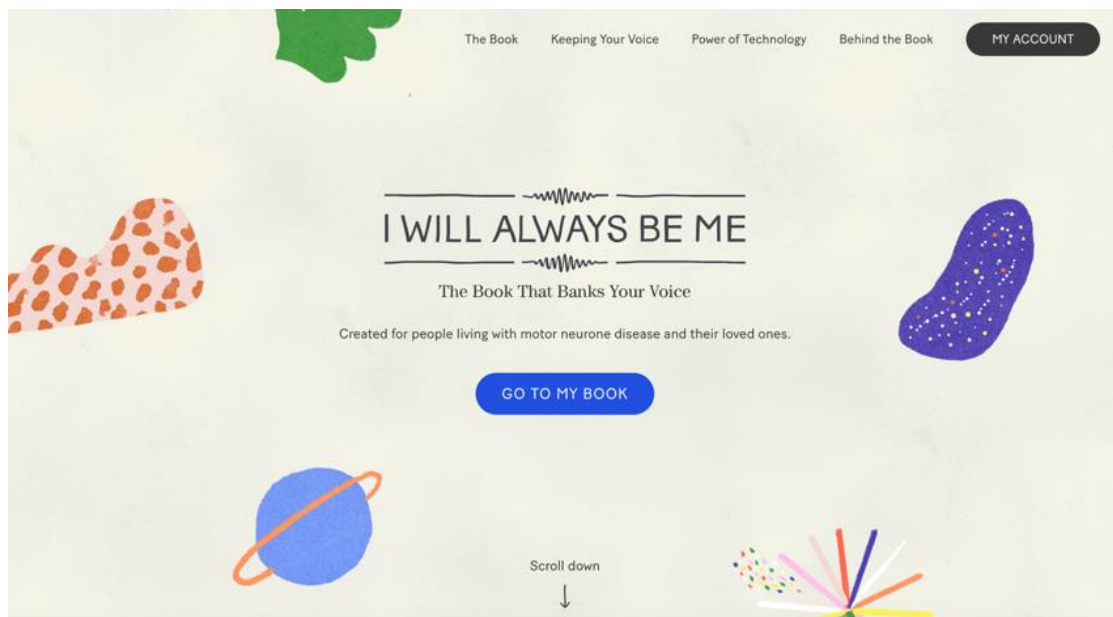
The process has been developed with input from people living with a range of medical conditions that impact speech, as well as speech and language therapists/pathologists and experts in human-computer interaction.

To make the technology further accessible to people, a range of funding partnerships are in place where charities cover the cost of the synthetic voices.



Voice Banking with “I Will Always Be Me”

“I Will Always Be Me” is an e-book that describes what a diagnosis of MND might entail for someone. By reading aloud the story, the user is also able to bank their voice in less than half an hour. The book has been developed by Dell, Intel, Rolls Royce and MND Association. SpeakUnique are delighted to be the voice banking partner for this project.

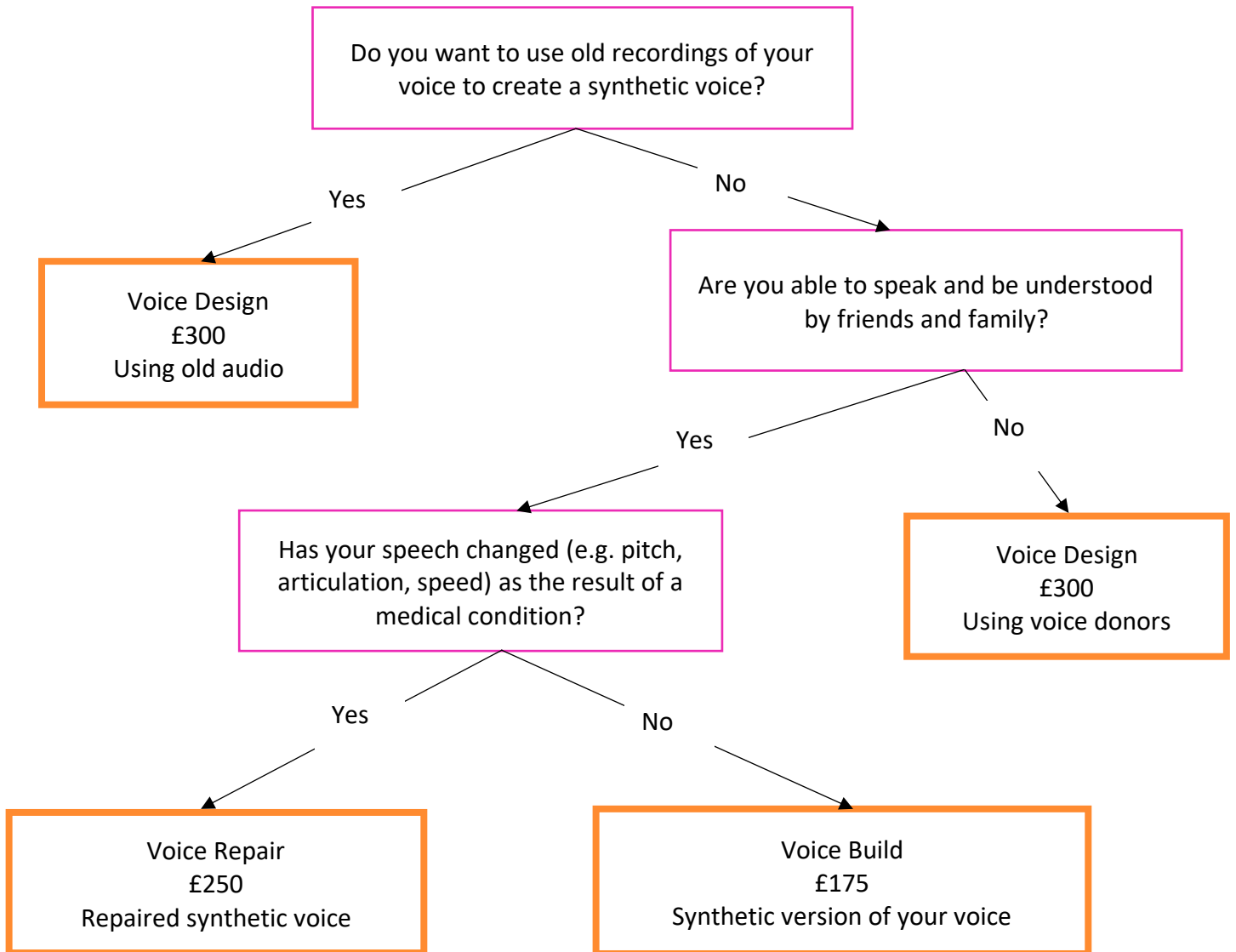


Please note “I Will Only Be Me” is only available to people living in the UK and Ireland who have a diagnosis of MND.

Once the e-book has been recorded, users will have the option to share a link of them reading the book with their loved ones, as well as download a video of the illustrated book with their recording. The recording can also be used to create a digital version of the individual’s voice – powered by SpeakUnique’s state-of-the-art Voice Build and Voice Repair technology. Further information can be found at www.iwillalwaysbeme.com.

Which SpeakUnique product is right for you?

The diagram below may help you determine which service is right for you:



Creating your SpeakUnique Voice

Requirements for Completing a Recording

To complete a voice recording, please ensure:

- SpeakUnique's recording website is accessed through a laptop or computer (recording is not supported on tablet computers/ iPads)
- An external microphone is used – this must plug in via the USB or headphone socket and ideally be a headset microphone
- A minimum of **125** and maximum of **150** sentences are recorded.

For optimum recording conditions, please follow these guidelines:

- Record in a quiet room with no background noise
- Complete the recording in a room with lots of soft furnishings as reflective surfaces (e.g., stone/ wooden floors, lots of hard surfaces) can cause reverberation/ echo.
- Wear a headset microphone, that is positioned in line with your jaw and is not too close to your mouth.
- Access the website through Google Chrome or Mozilla Firefox. We recommend you do not use Safari or Internet Explorer.
- If you make a mistake when reading the sentence or if someone else speaks during the recording, please rerecord the sentence.
- Listen back to the first 5 sentences to ensure the correct microphone is being picked up and that there is no unexpected background noise. Then listen back every 20 sentences to ensure the settings haven't changed.

The Recording Screen



Your Account **Logout**

Status: Ready to Record

Microphone: Plantronics Blackwire 3220 Series [Change](#)

The sentence to read

and the Reform Club was especially agitated, several of its members being Bank officials.



Volume bar indicates the volume of recording. Green is the ideal volume and you may see an error message if you go above or below the ideal volume

The playback button allows you to hear the sentence you've just recorded



Press the record button, read the sentence, and then press the stop button

Arrows to click to the next sentence, or back to the previous sentence

Progress of recording is shown along the bottom

This is sentence **126** of **150** (total recordings).

Save and Log Out

If you want to complete the recording at a later date please click this button. Your current progress will be saved and you will be logged out.

Save and log out will allow you to log out and return to the recording at a later date

84 %

Reading: Around the World in Eighty Days
[\[Click to change book\]](#)

Save and Submit

If you have recorded all the sentences you can manage please click to submit your recording and we will generate your synthetic voice.

Save and submit will appear once the minimum number of sentences has been recorded. Use this button when you have recorded all sentences you are able to and want to generate your synthetic voice

Creating a Voice Design

Our Voice Design system can be used in two different ways. We can either use old recordings of you speaking to recreate your voice in a synthetic version. Or we can use donor voices that match your desired accent, age, and gender to create a bespoke voice for you. The bespoke voice will be a mixture between your two voice donors and will not sound like either one of the donors: instead it will be a voice just for you.

Requirements for Old Recordings of Voice

We can use old recordings of your voice where the below criteria are met:

- File(s) in .wav, .mp3, .mp4, .mov or other digital formats.
- There is at least 5 minutes of the target individual speaking, highest quality voices are created with between 15 – 20 minutes of speech
- This must be free of loud background noises e.g. music playing or many people speaking at once
- There cannot be multiple people speaking over each other
- If the recording contains more than one speaker, it needs to be clear whose voice we want to create; you can email any clarifications to us at support@speakunique.co.uk

Requirements for Voice Donors

If you are using our Voice Design service with voice donors:

- Please select up to 2 individuals who have the vocal characteristics you wish to recreate (e.g., regional accent, age and gender)
- If you do not have the required voice donors please get in touch, we might be able to use our existing bank of donor voices
- Your voice donors will need to complete our voice recording process. Please share the document “**Being a Voice Donor**” with them, which is available on the [Support Documents](#) page of our website.



Once the synthetic voice has been created

Once you have submitted your recordings to SpeakUnique, we aim to have the synthetic voice generated and ready for you to listen to within 1 -2 business days.

Listen before you pay

You can listen to samples of your synthetic voice before any payment or funding is required.

If you are not happy with the synthetic voice generated, please email us at support@speakunique.co.uk and provide feedback on the voice with any areas you believe require improvement. We can then act on feedback to improve the synthetic voice.

Payment/ Funding

Payment is only required at the point that the individual wishes to download and start using the synthetic voice. There is an option to purchase the voice through an online, secure card payment – this is for people who wish to self-fund a voice.

We currently have funding partnerships in place with

- Motor Neurone Disease Scotland,
- Motor Neurone Disease Association,
- Irish Motor Neurone Disease association
- Progressive Supranuclear Palsy Association
- The MSA Trust
- Ataxia UK
- Mouth Cancer Foundation
- MND & Me (Queensland, Australia)

SpeakUnique synthetic voices may also be eligible for funding through your health service provider such as the NHS or HSE, however, this will vary depending on your local authority. Please email funding@speakunique.co.uk if you would like more information about this.

We are happy to work on an ad hoc basis with other charities and organisations able to offer funding to people. Please email funding@speakunique.co.uk if you would like to discuss this further.

Using your synthetic voice

SpeakUnique voices can be downloaded unlimited times across a range of devices.

SpeakUnique App

The SpeakUnique app is a text-to-speech app that allows you to input text via a keyboard or pre-set categories and phrases. This typed message is then generated in your personalised synthetic voice. The app can be used with various input methods, such as switch access.

Apple Devices

The SpeakUnique app is compatible with iOS devices (i.e. iPhones and iPads) running **iOS 12** or higher.

Android Devices

The SpeakUnique App can also be run on many Android devices. Our app's compatibility with Android depends on the chip used by the particular device.

A current list of tested Android devices is available here:

<https://www.speakunique.co.uk/session/using-your-voice-speakunique-app-android>.

You can check whether a given device is compatible or not on the list.

Speed Test App

If you already own an Android device but you're not sure if it's compatible, you can check this by using our speed test app, which can be downloaded free from the Google Play store by searching for "SpeakUnique Speed Test". The app will run a short speed test, which takes less than a minute, to confirm if your device is compatible with the SpeakUnique app. Once you have run the test, you can delete the speed test app from your device.

Third Party Apps for iOS

We have partnered with Smartbox and Therapy Box to integrate SpeakUnique voices into Grid for iPad and Predictable for iOS devices, respectively. A licence for Grid for iPad or Predictable must be purchased separately or provided through your healthcare provision. Please note SpeakUnique voices **do not** integrate into Predictable on Android devices.

Windows Devices

For Windows devices, the voices are provided in SAPI5 format where they can be accessed by any software on the device which relies on synthetic voices.

We do not offer our own SpeakUnique app for Windows devices – you will need to use third party software to access your voice.

We have confirmed the voices are compatible with the speech generating devices listed below but please get in touch if we have not included a device you intend to use the voice on.

Tobii Dynavox

Indi 7, i-12+, i-15+, i-13, i-16, I-110

SmartBox

Grid Pad 8, Grid Pad 10, Grid Pad 11, Grid Pad 12, Grid Pad 13, Grid Pad 15, Touch Pad

Liberator/ PRC

Accent 1400, Accent 1000 and Accent 800

Information for Healthcare Professionals

Trialling Voice Banking

We offer all healthcare professionals the opportunity to bank their own voice free of charge; this includes downloading and using the SpeakUnique voice in various formats. To access this trial please register at www.speakunique.co.uk and use your professional email address.

Clinician Accounts

Clinician Accounts allow healthcare professionals, whose clients are voice banking with SpeakUnique, to view their client's progress. Your client's account will be visible in your Clinician Account if they add your email address to the "Healthcare Professional" details of their SpeakUnique account; this information can be added during registration or from within the "My Account" section of their account. The email address they provide for you must match the email address your SpeakUnique account is registered to.

Training Available

We run regular online training sessions for healthcare professionals - please visit our website to see the next available sessions: <https://www.speakunique.co.uk/resources-and-support/webinars-training/>

Resources

In addition to this introduction to SpeakUnique guide, we have other guides available on our website. These guides can be found on our website, under [Support Documents](#).

Medical Conditions That Can Benefit from Voice Banking

Voice banking can be beneficial to people with a range of medical conditions.

To date, we have worked with people living with:

- Motor neurone disease
- Multiple system atrophy
- Progressive supranuclear palsy
- Corticobasal degeneration
- Multiple sclerosis
- Dystonia
- Head and neck cancers
- Ataxia
- Primary Progressive Aphasia
- Cerebral Palsy
- Trigeminal Neuralgia