Introduction to SpeakUnique

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Welcome to SpeakUnique

About Us

SpeakUnique are a voice banking company based in Edinburgh, UK. We are able to 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

[Facebook](#)   [Twitter](#)   [Instagram](#)   [LinkedIn](#)

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 or tablet, 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 losing their voice due to a medical condition and may become reliant on a synthetic voice to help them communicate.

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.
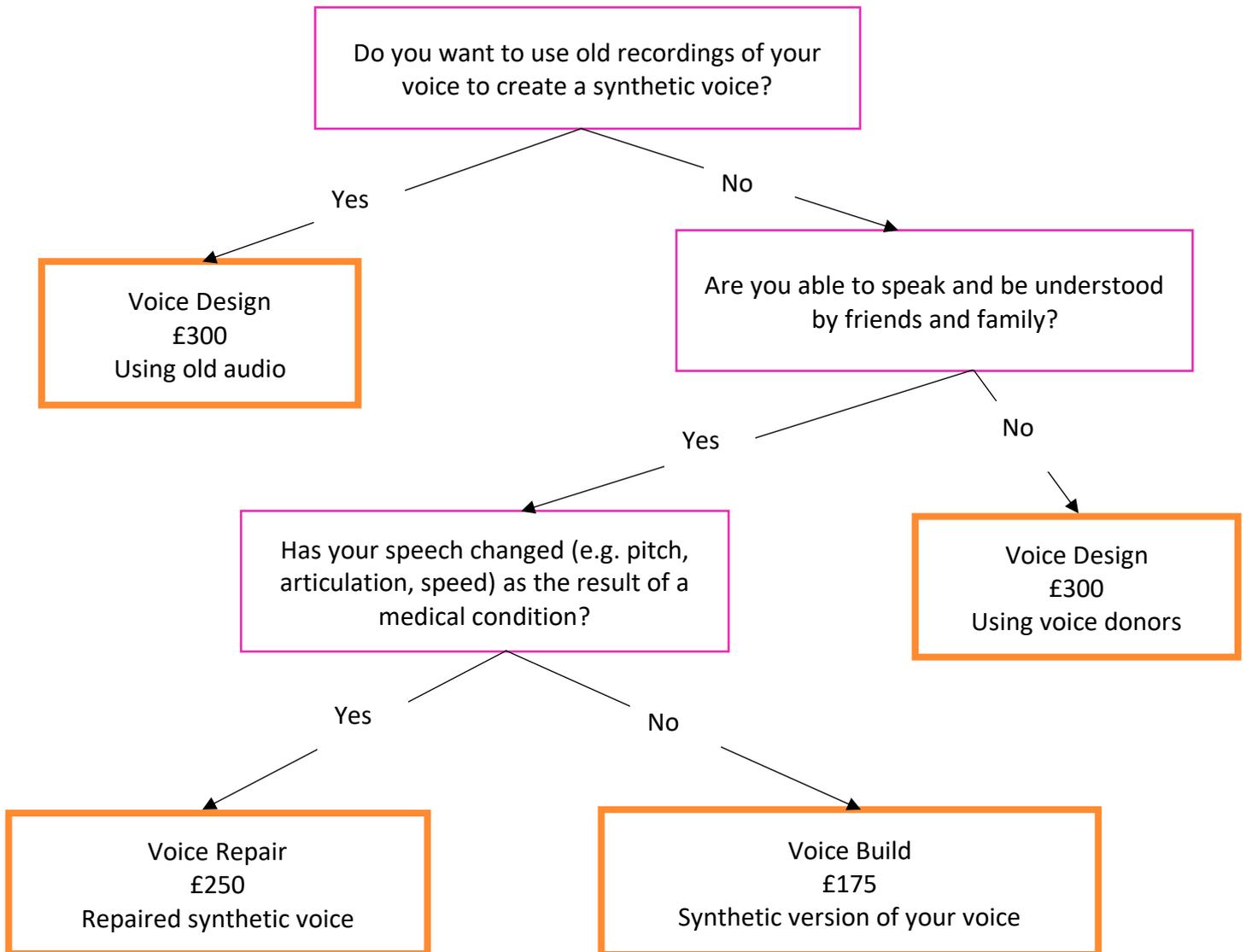
We offer three distinct voice banking services:

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

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 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.

Which SpeakUnique product is right for you?

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

Do you want to use old recordings of your voice to create a synthetic voice?

Yes

No

Voice Design
£300
Using old audio

Are you able to speak and be understood by friends and family?

Yes

No

Has your speech changed (e.g. pitch, articulation, speed) as the result of a medical condition?

Voice Design
£300
Using voice donors

Yes

No

Voice Repair
£250
Repaired synthetic voice

Voice Build
£175
Synthetic version of your voice

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 head mounted microphone

- A minimum of 150 sentences are recorded

- Access the website through Google Chrome or Mozilla Firefox. We recommend you do not use Safari or Internet Explorer.

For optimum recording conditions, please follow these guidelines:

- Record in a quiet room where background noise has been removed or minimised

- 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/ echoes

- You are wearing a headset microphone, that is positioned in line with your jaw and is not too close to your mouth

- When you press record, please make sure you only read aloud the sentence. For example, if you are interrupted, make a mistake or cough 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

SpeakUnique

Your Account   Logout
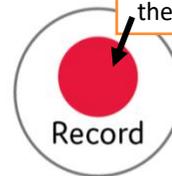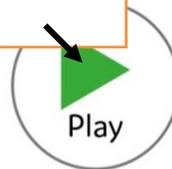
The sentence to read

'All the rest are going to send,' said little Alice.

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

Play

Record

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

Progress of recording is shown along the bottom

This is sentence 151 of 300.
Reading: Dick Whittington and His Cat [Click to change book]

50%

Save and Log Out

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

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

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

You can either control the recording by pressing the buttons with your mouse, or using the below keyboard shortcuts:
-   "R" key to start/ stop recording
-   Arrow keys to move between sentences

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Creating a Voice Design

File(s) in .wav, .mp3, .mp4, .mov or other digital formats

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. accent, age and gender)

- If you do not have the required voice donors, we might be able to use our existing bank of donor voices. Please get in touch with your requirements at support@speakunique.co.uk

- Your voice donors will need to complete our voice recording process. Please share the document "Being a Voice Donor" with them.

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 24 hours.

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,
Progressive Supranuclear Palsy Association

SpeakUnique synthetic voices can also be eligible for funding through **NHS Scotland**; however, this will vary depending on health board. Please email info@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 info@speakunique.co.uk if you would like to discuss this further.

Using your synthetic voice

SpeakUnique synthetic voices can be downloaded as many times as you would like (there is no limit), across a range of devices.

SpeakUnique App

The SpeakUnique app is a text-to-speech app that allows the user 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 voices can be used only through the SpeakUnique app for iOS and are supported by iPhones and iPads running iOS11 or higher.

Android Devices

The voices can be used only through the SpeakUnique app for Android. Due to the large range of Android devices, SpeakUnique voices are not supported across all devices. A full list of compatible devices can be found at https://www.speakunique.co.uk/su-upload/CurrentAndroidDevices.pdf or search "SpeakUnique" in the Google Play store. If the app is available to download onto your device, then the voice will be supported.

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 software/ app for Windows devices. SpeakUnique voices will work on all Windows devices that support AVX.

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