



Introduction

If you wish to record your voice for the future in case it deteriorates, it is advisable to do this as early as possible. There are different ways to go about this which involve different computer systems and software.

This Factsheet provides an introduction to the factors which need to be taken into account if you are considering storing your voice, and then outlines some companies that provide voice banking services

7 things to consider first

1. Message banking or Voice banking?

In Message banking, you record messages that you want to use in future if your voice deteriorates. Message banking is cheap and easy to do. You will only have available the messages that you recorded.

In Voice banking, you record your voice reading out a series of sentences. Using this technique, a digital synthetic version of your voice is created for you to download. It uses a digital speech generator (DSG) that allows you to create any words or phrases you wish, which your digital voice can then speak for you.

2. Which Computer Platform for your synthesised voice?

Companies listed on pages 3 and 4 below create synthetic voices that can be run on various platforms (computer systems).

MND Scotland is the only charity funding research and providing care and information for those affected by MND in Scotland.

Most companies produce voices that can run on all Windows computers, and can be used with any Windows AAC program (Alternative and Augmentative Communication). AAC programs let you input text and then speak it for you, or let you choose from a range of pre-stored sentences, including ones you stored previously.

Many of these voices are also available for use on an Android phone or tablet, and there may also be a version available for Apple Mac computers and laptops.

iPads and iPhones are a special case. Some companies produce a voice for use with iOS on an iPhone or iPad, but only through a particular iPad app that they favour. Each company uses a different app. They range in quality, ease of use, functionality and price, from free to £160 for the app. This is in addition to cost of the voice. And one or two companies do not support iOS voices at all. So if you want to use your voice with an iPad, be careful where you choose to bank your voice.

Some software companies sell versions of their AAC software for use on different platforms e.g. for iPad and Windows, but you may have to buy it twice.

3. Voices and alternative access

If you bank your voice, and your condition progresses, you may lose the ability to use your hands to operate a mouse, keyboard, or touchscreen tablet. In this case, you may need to use switches or a

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head pointer mouse or eyegaze to communicate with your computer and digital voice.

Switches will work successfully with most MS Windows apps, and with some iPad apps if you buy a suitable switch interface and app (see table on page 5). Most head pointers and eyegaze have been designed to work with Windows computers, and sometimes with Android or Apple Mac computers. There are no head pointers or eyegaze available for iPad and iPhone, for technical reasons.

If you need to access your computer using one of these alternative access devices, you will probably need to have a Windows computer, and a Windows compatible digital voice.

4. Your own voice or a strengthened voice?

Most companies record and recreate a synthetic version of your own voice, without any additions. The better the quality of your voice, the better the quality of the digital voice that is created.

If you have no speech at all, one company will accept a short recording of your voice in whatever form, analyse it and match it with the closest voice in their bank of existing voices.

There is one company that is working hard to build a large bank of male and female regional voices of all ages, which they will use to strengthen a voice that has already deteriorated. The aim is to provide a strengthened version of your voice, by matching and mixing it in a blend, like paint or whisky. It would be your voice, repaired where necessary with matching voices of others. The supporting voices are in no way

recognizable. This technology is exciting, but not yet commercially available.

5. Cost

Sometimes it is free to bank your voice, but it costs when you download it for use. Companies range in cost from about £80 to £2000+

6. How long is the recording process?

One company can work with as little as 100 sentences being recorded, which might take up to an hour. Recording about 400 sentences is normal. However, one company prefers you to read out 1600 sentences to achieve best quality recording.

Can you send in recordings made years ago, perhaps on tape? Some companies can convert old recordings to digital format for use in re-creating your voice. It will depend on the quality of the recording. But other companies will not do this. You would have to ask.

7. Can you record at home?

Yes, most services allow you to record over the internet. Some are fussy about the quality of microphone you use, and the recording environment. One insists that you download and use the Chrome web browser, and won't work with Internet Explorer or any other browsers. Read each company's requirements carefully, to see what you may need.

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Voice Bank Providers

There are main 5 providers listed below, but there may well be others. 4 of them are currently commercially available. The 5th is at the research project stage, and does not provide voices just now. Most of them offer to create your own digital voice as a by-product of their main service, which is to provide voices for apps for business.

1. Cereproc (www.cereproc.com)

Cereproc originated in Edinburgh University, and builds digital voices for installation into PCs for business. They also have an “Individuals” section on their website, called CereVoice Me, and will build a voice just for you. It is not clear if this is a single voice that is synthesised, or if there is any blending to strengthen it. The cost is £499, and there is a 10% deduction available for people with MND.

Your voice can be recorded over the internet if you have a good enough connection, and a suitable microphone. It takes a couple of hours. It may be possible to use old recordings, but they may need to be digitised if not playable on a computer. It will depend on the quality of the result, and how comprehensive it is for their needs.

The resultant voice Cereproc creates is released either as a SAPI file, which can be used on a Windows computer with suitable speech output software, or on a Mac laptop or desktop. It can also be released as a file suitable for use on an Android tablet. However Cereproc voices are not compatible with an iPad.

One patient with MND in the West of Scotland has used this service, and was very pleased with it.

2. Model Talker (www.modeltalker.org)

A second provider is Model Talker, a US company linked to a university in Delaware. It is free to record and store your voice, but it now charges \$100 (about £80), when you want to download it for use. You record over the internet. It isn't clear on their website whether they can work with previous recordings. One person who used the service stated that the voice is recognizably his, but sounds a bit robotic. It can be used on Windows, Android and Mac OS devices.

Model Talker also creates a voice that can be downloaded and used on an iPad. But it only works with one of two apps – either Predictable (approx. £160) or ChatAble (£110). The apps are both made by a company called Therapy Box, and are available on the App Store. Once you buy and install the app, you can download and install your voice through that. An MND patient in Edinburgh has a Model Talker voice, but says it is not as good as his Speak Unique voice (see below).

3. Speak Unique (www.speakunique.org)

A 3rd source is not readily available yet. Speak Unique is a Scottish Government backed collaborative research project based in Edinburgh University and the Euan MacDonald Centre for Motor Neurone Disease Research. It is currently recording sample voices from all over Scotland to use as a base blend to strengthen individual voices that are degenerating. It also recorded a number of patients with MND on a trial basis, and built voices for them. The trial is now closed while they analyse their results, and you cannot record your voice with them for now. One person with MND managed to get on the trial, and they built a voice for him. At present, it can only be

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used with Speak Unique's own app, on an iPad. This may well change in future. The whole service is really a research project with an eye to providing an NHS service for Scottish patients who need voice assistance. Speak Unique at the moment, it is not an option, but it offers exciting possibilities for the future, initially in Scotland, and eventually, perhaps throughout Britain.

4. My-own-voice (www.acapela-group.com)

Acapela offers a service to create your own synthetic voice. It has produced voices for ALS and cancer patients. It appears to be a sub-section of Acapela Group, based in France, Belgium and Sweden, which is well established in providing voices for apps for business, for use in navigation, telephone response etc. You can record at home. It requires you to speak 800, or preferably 1600 sentences, and has specific demands about the recording environment, the type of microphone you use, and the computer you use for recording. It can provide voices that operate on Windows, Android, MacOS and iOS for iPad. In the last case, it can only be used once a suitable app has been installed, in this case Proloquo2Go (£120). The MND Association web-site states it is free to record your own voice, but the cost to download the synthesized version is around 2400 euros (about £2150).

Acapela is well established in providing voices for apps for business. Building voices for individuals is possibly less well established.

5. VocaliD (USA, Massachussets: <http://www.vocalid.co> (not com!!!))

VocaliD offers 2 services. Bespoke Voice is a voice personalisation service that captures a very brief set of the person's own vocalisations (verbal or not, less than 3 minutes) and blends them with voices from its own bank that most closely match.

Vocal Legacy lets you preserve your voice by recording several hours of speech for creating a synthetic voice. Voices can be created for all formats – SAPI for Windows, MacOS, Android, and for iOS using the MyvocaliD app (free on the App Store). It costs \$1499 (around £1200) to record and create your voice, according to the MND Association web-site.

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Which iPad app is required / is it suitable for Windows?			
Provider	Platform Support	iOS app required	Windows app
Cereproc (£499) - CereVoice Me	Windows (SAPI), Mac OS	N/A	Grid3, Communicator5, Predictable, etc.
Model-Talker (\$100)	iOS 10*, Windows, Android, Mac OS	Predictable (£159), ChatAble (£109) therapy-box.co.uk	Grid3, Communicator5, Predictable, etc.
Speak Unique n/a	iOS*. Others?	Own app: buggy; not on release	
My-Own- Voice (Acapela) 2400Eur	Windows, Android, iOS*	Proloquo2Go; ProloquoText (£120)	Grid3, Communicator5, Predictable, etc.
VocaliD (\$1499)	Windows (SAPI), MacOS, Android , iOS* 10.3	myVocaliD (free)	Grid3, Communicator5, Predictable, etc.

*iOS - (used on iPad and iPhone only). Voice must be installed through approved app; different app for each voice production company

Switches can be used on an iPad with Predictable, ChatAble and Proloquo2Go

Further Information

<https://www.mndassociation.org/forprofessionals/aac-for-mnd/voice-banking/voice-banking-equipment-and-services/>

<http://www.callscotland.org.uk/blog/what-voice-banking-options-are-currently-available/>

<http://blog.patientslikeme.com/2018/01/17/communicating-with-als-from-devices-to-voice-banking>

<http://amyandpals.com/message-voice-banking/>

<http://practicalaac.org/tag/voice-banking/>

<http://www.zyteq.com.au/blog/message-banking-and-voice-banking-where-to-start>

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