

IOWA

Wendell Johnson Speech and Hearing Clinic
Department of Communication Sciences and Disorders

VOICE BANKING GUIDE

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MESSAGE BANKING

- Recording words, phrases, and/or sentences that reflect your personality. Once recorded, the messages can be played back on a computer, or later using a communication device
- **Double Dipping:** The process of uploading the recordings made during the process of message banking to a voice banking service so a synthetic voice can be made with no additional recording time. This can be done through Acapela or Voice Keeper.

How do I message bank?

- First, create a list of things you say often that you want to record. Ideas include:
 - a. Catchphrases / Unique sayings
 - b. Jokes / nicknames
 - c. Stories and Quotes
 - d. Personally meaningful sounds
 - e. A large list of ideas of phrases to message bank is available in a pdf titled: [Message Banking™, Voice Banking and Legacy Messages™ John M. Costello Boston Children's Hospital](#)
 - i. Click on the link above or search the internet for the title of the document to access the full list
- Then, record your messages. Options for recording include:
 - a. Free Voice Recorder app on a phone
 - b. Free Audacity software on a PC, which can be downloaded from <https://www.audacityteam.org/>. You will need a headset or other external microphone to achieve good audio quality. (Audacity guide available [here](#) or in the [appendix](#))
 - c. Using paid-for communication software. This allows for messages to be recorded directly onto a tablet (e.g., The Grid 3, Grid for iPad, Predictable)
- Recorded messages must be saved on a computer as a wav file, labelled, and categorized in a clear order
- mymessagebanking.com is a free website that will guide you through the message banking process and can be used to help sort your messages for later use with a communication device
- More information on message banking from the ALS Association Iowa Chapter is available in the appendix [here](#)

VOICE BANKING

- Recording a large inventory of your speech that is then used to create a synthetic voice that approximates your natural voice.
- This synthetic voice can be used on a communication device to speak aloud any typed language.

Note: Make sure you download your voice and back it up in multiple locations (preferably at least one online and one offline location) after purchasing to prevent losing it if one location becomes corrupted or destroyed. Only ModelTalker and SpeakUnique say they will continue to store your voice on their servers after you purchase it, but you should always maintain your own backups to ensure the safety of your voice.

Funding

In the US, the only major source of funding available to those with ALS is through the Gleason Foundation. Anyone can apply who has ALS and lives in the United States. The voice banking services available for funding from the Gleason Foundation are Acapela and ModelTalker.

How to Apply

- Go to: <https://teamgleason.org/need-assistance/>
- Fill out the application. For the field “purpose of usage”, select “medical”.
- Upon clicking Medical, some additional fields will appear. Complete these fields.
- For the field “request for funding”, select “Team Gleason”
- Team Gleason will be notified of your request. Team Gleason will be contacting all clients before approving the request by email and/or phone. Note: If you do not respond to Team Gleason’s request for contact within 14 days, your request for funding will be denied and you will need to reapply.
- Once the request is approved, you will receive an email with your login credentials. Log in to your account and get started.

How do I voice bank?

- You need: A computer, Wi-Fi, external microphone a quiet environment, and time (voice banking can take many hours)
 - Please contact the ALS Association Iowa Chapter if you would like to borrow a noise-canceling microphone from the Communication and Assistive Device Program to voice bank at home. If you will be banking with a clinician at Wendell Johnson, we will provide the computer, microphone, and an appropriate environment.

Voice Banking Guide

Voice Banking



- There are many different voice banking services available, all with different requirements and results. Research to determine which service best fits your needs.
- An overview of available options can be found in this **comparison chart**:

	<u>ModelTalker</u>	<u>Acapela My Own Voice</u>	<u>Vocal ID</u>	<u>Voice Keeper</u>	<u>CereVoice Me</u>	<u>SpeakUnique</u>
Cost:	\$100 Pay after recording	\$100/year or \$1000 one time Pay after recording	\$30 for each preview build, \$1500 for full voice Pay after recording	Free for LAMP WFL, TouchChat, & Dialogue AAC \$299 for SAPI \$75 for Android or iOS Refund within 30 days if unhappy	\$673 (includes a microphone that does not need to be returned) Pay before recording	\$235 for regular voice \$335 for “Voice Repair” - Repairs impaired speech for synthetic voice Pay after recording
Time:	7 hours average (up to 3155 sentences)	2 hours (50 sentences)	5-7 hours (1000-2000 sentences)	30 mins (200-300 sentences) - Up to 500 sentences	4 hours (619 sentences)	1-2 hours (100-300 sentences)
Overview of Process:	<ul style="list-style-type: none"> • 10 test sentences, get suggestions to improve recording • May take days to make voice • Then listen to examples and select preferred 	<ul style="list-style-type: none"> • Online only service • Takes ~2 business days to receive voice, get an email when done 	<ul style="list-style-type: none"> • Record sentences • Purchase preview build (\$29) • Give feedback and they will reblend the voice • Purchase and download voice (\$1499) 	<ul style="list-style-type: none"> • Use app or website • On app, use iPhone’s mic • On website, use external mic • Record 100 sentences, then hear voice • Decide when to stop based on quality 	<ul style="list-style-type: none"> • Purchase online • Receive mic in mail • Record sentences on website • Hear voice after recording 	<ul style="list-style-type: none"> • Choose type of voice banking (regular, voice repair, or voice design (creates a voice from old recordings)) • Record online • May take several days to make voice • Then listen to examples and select preferred
How to	Online or program on computer	Online or program on computer	Online only	Online or on iOS app	Online only	Online only
Requires	Quality microphone	Quality microphone	Quality microphone	iPhone/iPad (No external mic) or computer & good mic	Provided mic/headset	Quality microphone
Extras:	<ul style="list-style-type: none"> • Custom sentences 	<ul style="list-style-type: none"> • Custom sentences • Double Dipping • 16 languages available 	<ul style="list-style-type: none"> • Can create a unique voice from a blend of voice donors 	<ul style="list-style-type: none"> • Custom sentences • Double dipping • English and Hebrew available • Can improve voice after buying 	<ul style="list-style-type: none"> • Available in English, Spanish, French, Swedish, Italian, Polish and Romanian. 	<ul style="list-style-type: none"> • Voice Repair • Create voice from blend of voice donors (\$400)

Device Compatibility

- Before you start recording, please ensure the device you want to use your voice on (e.g. communication aid, phone or tablet) is compatible with the program you wish to use for voice banking. A table is provided here of device compatibility with different services,

**SAPI stands for Speech Application Programming Interface and can be viewed as an interface which sits between applications and speech engines. Most Windows-based communication devices are compatible with SAPI. Examples include, but are not limited to:*

- **Tobii Dynavox:** [Communicator 5](#), [TD Snap](#) for Windows, and [TD Talk](#) for iPadOS
- **PRC-Salttillo:** [Accent line](#) of products
- **Smartbox:** [Grid3 assistive communication software](#) and [Grid Pad communication and environment control devices](#)
- **Jabbla:** [Mind Express](#)

	iOS / Mac	Windows / Android	Additional
<u>ModelTalker</u>	<p>iOS:</p> <ul style="list-style-type: none"> • Predictable • ChatAble <p>Mac:</p> <ul style="list-style-type: none"> • Proloquo4Text • System Voice 	<p>Windows:</p> <ul style="list-style-type: none"> • SAPI* 	
<u>Acapela MOV</u>	<p>iOS:</p> <ul style="list-style-type: none"> • Compatible apps • Predictable <p>Mac:</p> <ul style="list-style-type: none"> • System Voice 	<p>Windows:</p> <ul style="list-style-type: none"> • Acapela App • SAPI* <p>Android:</p> <ul style="list-style-type: none"> • Google's TTS API 	<ul style="list-style-type: none"> • All PRC-Salttillo devices and apps • Tobii Dynavox: Compass 2.0 (Windows), I-Series Devices
<u>Vocal ID</u>	<p>iOS:</p> <ul style="list-style-type: none"> • MyVocaliD • TouchChat 	<p>Android:</p> <ul style="list-style-type: none"> • MyVocaliD 	<ul style="list-style-type: none"> • PRC-Salttillo: Accent Devices • Tobii Dynavox: I-series Devices
<u>Voice Keeper</u>	<p>iOS: (all free)</p> <ul style="list-style-type: none"> • LAMP WFL • TouchChat • Dialogue AAC 	<p>Windows:</p> <ul style="list-style-type: none"> • SAPI* <p>Android:</p> <ul style="list-style-type: none"> • External TTS 	<ul style="list-style-type: none"> • PRC-Salttillo: Accent Devices (Free)
<u>CereVoice Me</u>	<p>Mac:</p> <ul style="list-style-type: none"> • System Voice 	<p>Windows:</p> <ul style="list-style-type: none"> • SAPI* 	<ul style="list-style-type: none"> • Smartbox: Grid Pad
<u>SpeakUnique</u>	<p>iOS:</p> <ul style="list-style-type: none"> • SpeakUnique app • Predictable • Grid for iPad 	<p>Windows:</p> <ul style="list-style-type: none"> • SAPI* <p>Android:</p> <ul style="list-style-type: none"> • SpeakUnique app 	

Before you Begin

To record your voice, you will need:

- A laptop or computer with Google Chrome installed
- An external microphone that connects to a computer via the USB port or headphone jack
- Headset microphones with USB connections are preferred, you should expect to spend around \$40 - \$50 on a microphone.
- Examples of recommended microphones include: Sennheiser PC-8, SC-160 or 165, SC-60, or SC-70; or the Evolve series headsets (e.g., Evolve 20 or 40) from Jabra.
- More information on microphone choice can be found [here](#) (from ModelTalker).

Make sure you avoid background noise that can decrease the quality of the recording.

Things to do to avoid background noise include:

- Recording in a room with carpet or curtains to dampen sound so it doesn't bounce around the room. You can also hang, place blankets on the floor, or cover you and your computer with a blanket when recording in order to absorb some of the sound. Something like a walk-in closet is ideal for home recording.
- Make sure no one is talking in another room or that you cannot hear them
- Close windows and doors to avoid noises from outside or other rooms
- Make sure phones or other devices are on silent
- Watch out for and eliminate less obvious sources of background noise, like fans, forced-air heat, air conditioners, or other appliances.

Recording Tips

- The quality of the audio will also affect the quality of the voice. This is why you should use an external microphone (not the one built-in to your computer).
- Keep your microphone at a consistent distance away from your mouth and do not breathe directly into it.
- Read the sentences in a natural voice- don't over-emphasize any of the words but try not to sound too flat, or this will come through in your synthetic voice.
- If you cough or make a mistake while speaking then re-record the sentence.

ModelTalker

Features

- You can add custom sentences to your ModelTalker voice for limited message banking
- ModelTalker is available for funding through [the Gleason Foundation](#)

Signing Up


1. You need to use the Google Chrome web browser for the program to work
2. Register online at: <https://www.modeltalker.org/register-with-modeltalker/>
3. Choose the correct registration category (i.e. “voice banker”) and fill in your details to register.
 - a. *Note: If you are working with a Speech Language Pathologist, you can enter their email address under “CC email” so they can stay up to date with your progress.*
4. Read and agree to the terms and conditions and click **Register**
 - a. You can now download the ModelTalker application to your computer/laptop to record your voice or use the website.

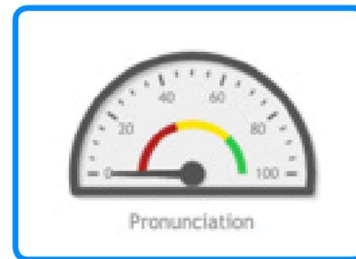
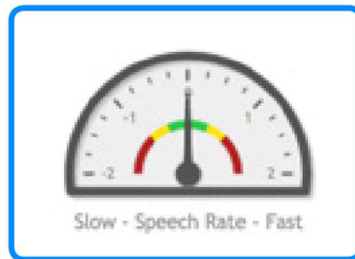
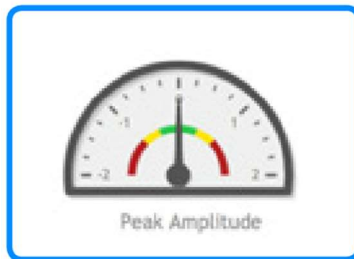
Website	Application
Requires internet connection while recording	Does not require internet connection while recording
Must be used through Google Chrome	Can be used from desktop
Does not require a download	Requires a download


Note: This will make no difference to the quality of your recorded voice.

5. Information from ModelTalker on setting up your recording location: <https://www.modeltalker.org/getting-set-up-for-recording/>
6. Plug in your microphone and make sure it is selected under “Microphone” (Hint: NOT default).
7. Then click **Measure** to check the loudness (dB) of your microphone. This should be between -80 and -60.
 - a. A setup checklist for Mac or Windows computers can be found here if needed: <https://www.modeltalker.org/resources/>
8. Note any changes you made to reduce noise and use these each time you record
9. Follow the steps on screen to record a test sentence. If there are no problems, click **Continue** and move on to record the trial sentences.

Recording the Trial Sentences



1. “Settings” will open on its own. Type “Screen” under **Inventory**
2. Check that your USB microphone is chosen under **Microphone**
3. Click **Measure** to measure your microphone silence. Click **Listen** to check silence (make sure you can’t hear any noise). Once this is done, click **Start**.
 - a. *Note: You must do this each time you start a new recording session*
4. The first sentence will appear on screen and will be read to you. If you need to hear it again, click the replay button
5. Click  and say the sentence out loud. Try to say it the same way as the recording.
 - a. *Note: Make sure you don’t speak too quietly. The recording will stop on its own when you stop speaking.*
6. You will be given a rating for “peak amplitude” (loudness), “speech rate” (speed), and “pronunciation” (how clearly you say the words). Aim for green and yellow ratings.



7. The next sentence will appear. Repeat these steps (4-6) for each sentence.
8. Listen to some of your recordings as you go to check how they sound.
 - Do this by clicking  next to the recorded sentence.
 - If at any point during the recording process you are not happy with the recording, click the sentence to record it again
9. Once you have recorded all sentences and are happy with how they sound, follow the steps on-screen to submit your sentences.
10. In a few days, ModelTalker will email to let you know if your trial recording is okay or if you need to retry. When your recordings are approved you can begin recording the main sentences.

Note: If anything changes in your recording configuration (such as moving locations or switching microphones), the test set will need to be redone before continuing to record the main sentences.

Recording the main sentences

1. Log in to Model Talker at: <https://www.modeltalker.org/login/>
2. Click **Recording** then **Online Recorder**. Settings will open.
3. Type the name of the sentence set that you will be recording in the box marked **Inventory** (ModelTalker will email this to you). Measure your microphone silence levels, then click **Start**.
4. The sentence will appear on screen and will be read to you. If you need to hear the sentence again, click the replay button
5. Click  and say the sentence out loud. It will then move on to the next sentence.
Note: You will receive a rating the same way as the trial sentences
6. Review some recordings as you go by clicking next to the recorded sentence.
 - Click the sentence if you wish to re-record.
 - Click  when you are ready to move on.

Note: Recording will take around 6-7 hours so make sure you take breaks and do not aim to record in one day.

Once you have recorded the main sentences, follow the steps to submit them to ModelTalker, so they can make your synthetic voice. To create some of your own custom phrases and sentences for message banking, follow the above steps to continue recording.

Choosing your synthetic voice

1. In a few days, ModelTalker will email to let you know that some options for your voice have been made for you to choose from.
2. Go to <https://www.modeltalker.org>
3. In the top right corner click **Voices** and then **Auditioning**. Read all instructions.
4. You can now hear some voice options and apply effects to them, so you are happy with the sound of your voice. These are:
 - **Rate of speech (speed):** you can increase the speed at which your synthetic voice produces speech. This can be changed on a sliding scale from slow to fast.
 - **Synthesized Intonation and Synthesized Syllable Timing:** These can make your voice sound more natural. You can turn them on or off.
5. Listen to a few trial sentences of your voice with and without each effect and change the rate of speech. Choose the effects and rate of speech you wish to use and select them. These will be used on your voice for the next step.

Voice Banking Guide

ModelTalker



- 6.** You will now hear 30 sentences, each played twice, using a different voice option each time. Pick the sentence that sounds the best to you. The website will then make two voices based on your choices.
- 7.** You will have one last chance to listen to two voices, and then choose the one you like best. You can also change the effects mentioned above.
- 8.** You will now be required to pay with credit card. The price is \$100. If you are not happy with your voice at this point, you can choose not to make the payment.
- 9.** Once the payment is confirmed, ModelTalker will prepare a full voice for you. You will be emailed when this is ready to download.
- 10.** You can then download and use your voice on the devices you wish or save it for future use on devices.

Acapela My-Own-Voice

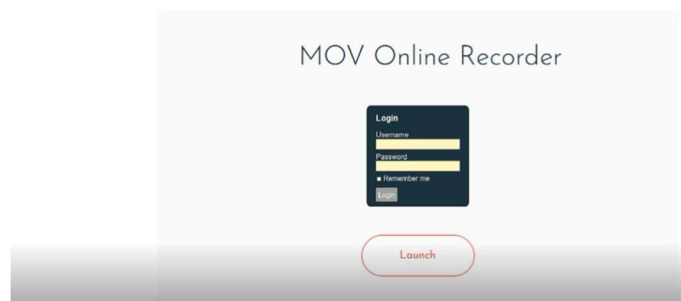
Features

- Acapela My-Own-Voice is available for funding through the Gleason Foundation
- Acapela MOV is available in Arabic, Czech, Danish, Dutch/Dutch (BE), English (Australia, UK, US), Finnish, French/French (Canada), German, Greek, Italian, Norwegian, Spanish/Spanish (North American), Swedish, Turkish, and more to come.
- My Own Voice can also create a recorded version of your voice from a past recording and written text of that recording. This may be useful for someone who is unable to voice bank but has previously stored many recordings. Refer to Acapela's website for more details.
- Acapela has produced a series of video tutorials for their service, available at: <https://mov.acapela-group.com/tutorials/>

Signing Up

1. Fill in the contact form at <https://mov.acapela-group.com/start-now/>
2. It may take up to 2 working days for your account request to be approved
3. Log in details will be emailed to you once you are approved, log in at: <https://mov.acapela-group.com>
4. If you want to add custom messages to your voice, do so before starting the process
 - a. To do this, go to the record tab and click on the link shown in the picture below. There, you can upload a text file with one custom message per line.

Want more personal meaning with your synthetic voice?
Add your custom messages before you start your recordings.

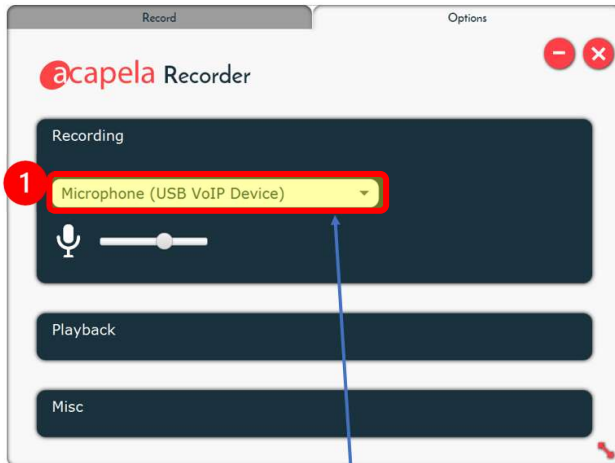


5. When ready, go to the record tab and download MOV recorder
6. Log in to MOV recorder using the same details as above

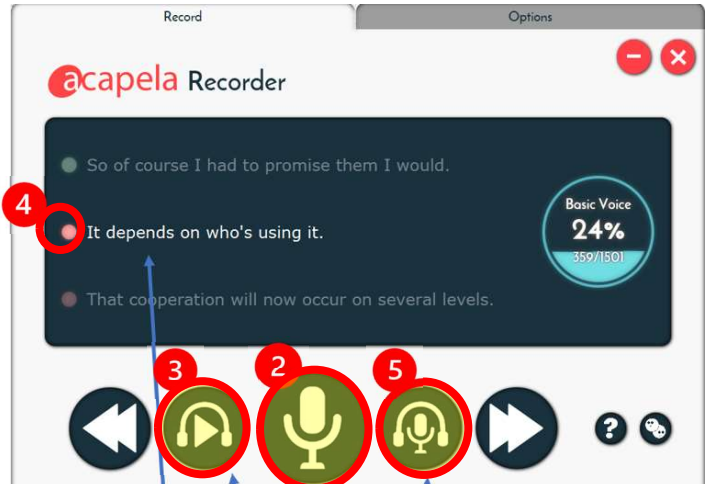
Recording Sentences

7. After logging in, select your recording device (1), click **Calibrate**, and follow the on-screen instructions
8. Note: Make sure to calibrate before EACH recording session

b. Calibrating



a. Recording



9. Click the **Record** button (2), and read the sentence. Click **Record** again to stop. Do this for each sentence. You may click to hear an example.
10. Listen to the example of standard pronunciation by pressing (3).
11. A green light (4) indicates the sentence has been recorded, a yellow light indicates the ongoing recordings and the red light indicates that the sentence has to be recorded.
12. You can listen to what you have recorded by pressing (5) (if the file has been saved).
13. You can also click **Auto mode** in options for the sentences to run in order without stopping
14. When you are done recording you can test your voice in the **Listen** tab on Acapela's website: <https://mov.acapela-group.com>

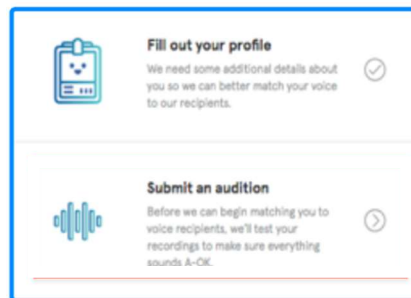
VocaliD

Features

- A video tutorial going over the steps of using VocaliD for voice banking can be found at: https://youtu.be/pyyH-8_1rRg?t=198
- **BeSpoke Voice:** VocaliD can match your unique vocal identity with a voice from the Human Voicebank based on a short recording of your voice. They will blend your recording with theirs to build you a unique voice.

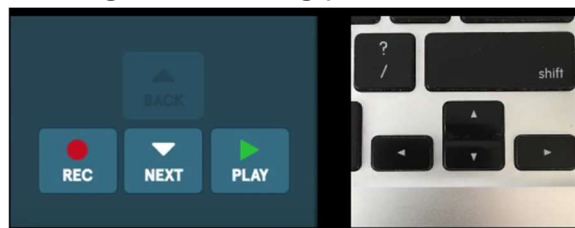
Signing Up

1. Using Google Chrome, visit <https://portal.vocalid.ai/account>
2. Fill in your information and select **I want to receive a Vocal Legacy Voice**. Then click **Create My Account**
3. Click on **Fill out your profile**, enter your details, and then click **Save and continue**.



Auditioning

4. Click **Submit an audition**, then the **Next** button to continue
5. Check that you meet the requirements to record, then click **Next** to continue
6. Allow the app to access your microphone and click **Next**
7. The buttons in the recording studio are shown in the picture below. They correspond to the arrow keys on your computer, and either the arrow keys or the on-screen buttons can be used during the recording process.



8. Click **Record** to check the background noise levels. Stay silent while the timer counts down. You will see green text that says “your background noise levels passed!”, and then you can start recording.
9. Press the **Record** button and say “ahh” for 3 seconds. Then click **Next**
10. Click on 3 or more reading preferences and then your preferred reading level
11. Record the sentences, pressing **Record** before reading and **Stop** when you are finished with the sentence
12. After recording, you can press **Play** to listen to your recording (it is recommended you do this once every 10 sentences), and **Next** to move on to the next recording
13. VocaliD will then review your recordings, which may take 24-48 hours. When they are done, they will either give you tips on improving your recordings, or they will give you access to the rest of the stories to record.

Finishing Recording

14. To record the rest of the stories, log back into your account and click on the **Legacy Studio** button in the top right corner of the Dashboard.
15. VocaliD recommends that each person read at least 2000 sentences in order to receive the highest quality voice possible.
16. When you are finished recording, you can purchase a preview of your VocaliD voice for \$29.99, and then either re-record sentences to improve your voice or purchase your full voice

Voice Keeper

Features

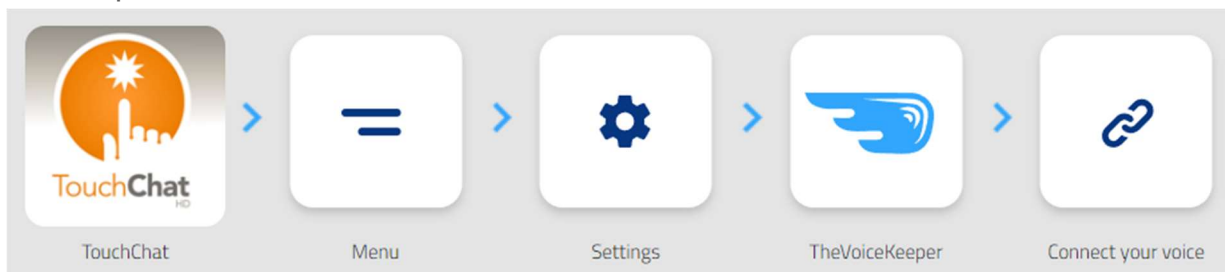
- Free for LAMP WFL, TouchChat, & Dialogue AAC apps or on Accent devices
- Can record without an additional microphone on iPhone or iPad using the free Voice Keeper app
- **Double Dipping:** Can import message banking recordings directly from your computer or from PRC-Salttillo's site or myMessageBanking.com and use them to create your synthetic voice. You can also add personal messages and record them during the creation process.
 - Can also import recordings from another voice banking service to try out Voice Keeper without doing any additional recordings.
 - All of these are done by clicking on **Advanced** on the left hand side of the recording screen. More instructions are available [here](#) in the appendix of this document.
- Voice Keeper has a video tutorial for their service that you can access at: <https://www.youtube.com/watch?v=UaOmyVKTCi0>

Recording

1. Choose your recording device: PC (<https://app.thevoicekeeper.com/>) or iOS (The Voice Keeper app).
2. Register for a new account on either the app or the website by filling out your email, choosing a password, and filling out your personal details
3. Check that you are in a quiet room, using a headset microphone to record, and can use the keyboard shortcuts **1** to record and **2** to stop recording.
4. Follow the instructions on-screen to allow Voice Keeper to access your microphone
5. Read aloud the sentences on the screen.
 - Note: If your voice is not as strong and you would like to make the recording process easier, choose recording short sentences first in the settings.
6. Each approx. 10 minutes of recording you will reach a milestone and get a new voice version (30, 100, 200...).
7. You can keep recording until you are satisfied with your voice.
 - *Recording can be done with an iPhone OR a MacBook WITHOUT an external USB microphone.
8. You will get the first version of your voice within an hour. You may continue to record sentences while waiting for your first voice to be made
9. Both the recording website and the Voice Keeper iOS app allow you to type any text to hear and evaluate your voice. You have 90 days to evaluate your voice.

Purchasing and Downloading

10. Under the **What's Next** tab, click on **Plans** on the left hand side to purchase your voice (SAPI version), or purchase through the iOS or Android apps
 11. After making a purchase, you will get an email with your license key and instructions according to your device.
 12. Detailed instructions for downloading your voice on different platforms are also available at this link: <https://app.thevoicekeeper.com/Installation>
- **Windows SAPI:**
 - 1. Download the WINDOWS SAPI version of your voice using this link: <https://app.thevoicekeeper.com/AlmaguSpeechEngine.exe>
 - 2. Run the installer. When the program prompts you to input your license key, paste the code you will get to access your product.
 - 3. When the installation is complete, open your SAPI-compliant speech software.
 - 4. You will see a list of voices with names following the pattern 'personalN_v3', where N is the number of sentences recorded for the version.
 - 5. Select the latest version of your voice and start using it.
 - **PRC-Salttillo devices:**
 - <https://www.prentrom.com/support/thevoicekeeper-banked-voice>
 - **iOS apps:**
 - The Voice Keeper app: After your purchase the trial limit is automatically removed. If you've created a personal voice, you will need to login once to use it.
 - **PRC-Salttillo apps:**
 - **Dialogue AAC** - login with your The Voice Keeper account details to get both the generic and personal voices. In the Dialogue app, the personal voice is free!
 - **Lamp WFL and TouchChat:** after you purchase your license via our website, login with your The Voice Keeper account details to get both the generic and personal voices.



CereVoice Me

Features

- Purchase includes a headset and microphone that can be kept after voice banking.
- Available in English, Spanish, French, Swedish, Italian, Polish and Romanian.
- You can create a voice based on old recordings on a case-by-case basis if there are sufficient high-quality recordings. Contact Cereproc for more information.

Signing Up

1. Create an account on the website: <https://www.cereproc.com/en/user/register>
2. Once logged in, purchase the program on the [store page](#)
3. The headset and microphone needed are included in the price and will be sent to you

Recording

4. Once you receive the headset and microphone in the mail, start recording by going to your account on the CereProc website and clicking the **CereVoice Me** tab.
5. You will need to record 10 training sentences which will be uploaded and reviewed by staff at CereProc. If there are any issues with the recordings, CereProc staff will contact you to help make them better.
6. After the training sentences are checked, you will receive an email which will tell you that the training is finished and that you can continue to the main recording section.

Recording and Downloading

7. Once you hear back from Cereproc and make any recommended changes, you can record the main set of 620 sentences. This can be done in the same way as the test sentences. You can stop recording at any point and continue later.
8. Once all 620 sentences have been recorded, the voice will be built by CereProc.
9. Once your voice is built, you will be sent an exe installer from CereProc to download your voice
10. Once the installer is downloaded, open the exe to start the installation and follow the on-screen instructions.
11. When prompted choose the installation directory (you can leave this as its default) and the necessary files will be installed.
12. When this is done you can then import your new voice to your communication device of choice.

SpeakUnique

Features

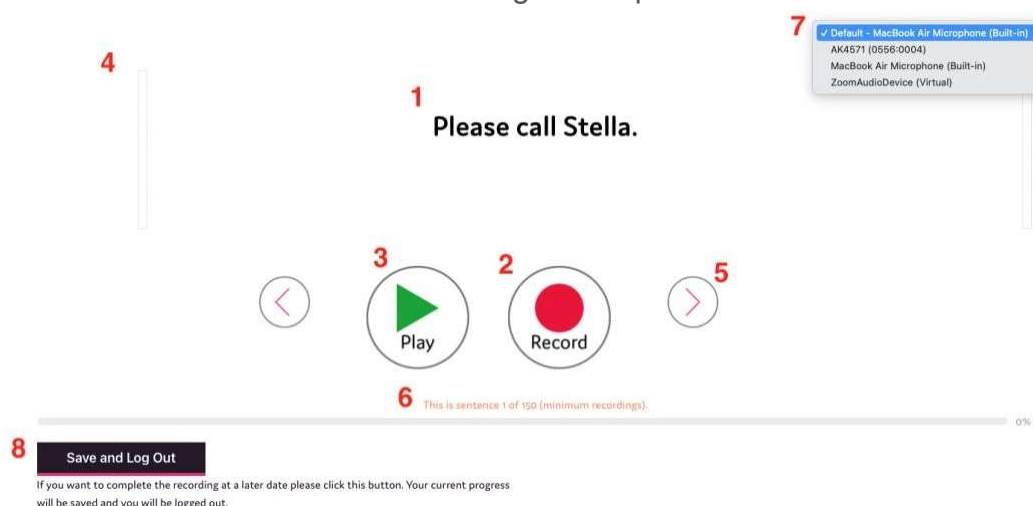
- **Voice Repair** – A repaired synthetic voice, for people whose speech is impaired at the time of recording.
- **Voice Design** - Bespoke synthetic voices for people with no intelligible speech, or synthetic voices based on old recordings.
- SpeakUnique has a video tutorial for their service that you can access at: <https://youtu.be/TDSd6vF0g5c?t=206>
- SpeakUnique voices are backed up indefinitely and can be downloaded any number of times.

Signing Up

1. Visit www.speakunique.co.uk and click **Sign Up/Login**.
2. To register for a new account, please enter your email address under “New to SpeakUnique?” and click **Begin Registration**.
3. Enter your first name, last name and choose a password.
4. Click **Voice Build** and then **Get Started**
5. Complete your optional personal details, then fill out the **Accent Influence** box
6. When done, you will receive an email to confirm your account has been made.

Recording

7. Follow the on-screen instructions to get set up to record and choose a script



8. Press **Record (2)** to start recording each sentence. Alternatively, you can use the “**R**” key on your keyboard to start and stop the recording.

- a. The sentence will turn pink and a red box will appear around the screen when you are recording
9. The **Play (3)** button allows you to listen to the sentence you have just recorded - please listen back to sentences frequently to check the quality.
10. The **volume bar (4)** indicates the volume of the recording. An error message will appear if the recording is too loud, too quiet or if your microphone is too close to your mouth.
11. The **arrows (5)** allow you to move between sentences. You can also use the arrow keys on your keyboard to do this.
12. The **progress bar (6)** shows the sentence number you are reading and what percentage of the recording you have completed.
13. **(7)** - Here you can select the external **microphone** you want to use. Please note the name of the microphone might differ from what you expect.
14. Use the **Save and Log Out (8)** feature if you would like to save your recording
15. Your synthetic voice can be built on a minimum of 150 sentences and a maximum of 300 sentences.
16. The **Save and Submit** button will appear once you have reached sentence 151 and can be used when you are ready to submit your recordings to create your synthetic voice. If you wish to record all 300 sentences, please continue recording until you reach the end of the process.
17. Once you have submitted your recordings, your account will show that your voice is being generated.

The screenshot displays a user account interface. At the top left is the SpeakUnique logo and the name 'Alice Smith'. On the top right, there are links for 'Your Account' and 'Logout', with the email address '<alice@speakunique.co.uk>' below. The main content is divided into two panels. The left panel, titled 'Your SpeakUnique Products', shows 'Product: Voice Build' and a status message: 'Status: Your recordings have been submitted. Thank you! We will send you an email when your synthetic voice is ready to listen to.' The right panel, titled 'Your Details & Preferences', lists 'Name: Alice Smith', 'Email: alice@speakunique.co.uk', 'Date of Birth: 17/06/1994', and 'Marketing Information: No', with an 'Update' button at the bottom. A footer link reads 'Need additional help? Contact our support team at <support@speakunique.co.uk>'.

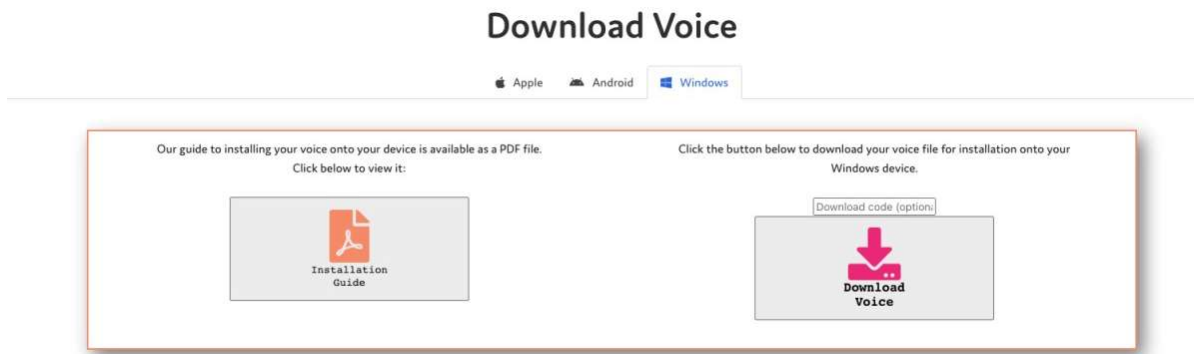
Listening to your Voice

18. You will be notified by email once your synthetic voice has been generated. Log into your account at www.speakunique.co.uk and click **Download/listen to samples of your synthetic voice**.

- 19. You can listen to 5 samples of your synthetic voice. If you have any feedback on the voice, or if you would like to upgrade to Voice Repair email support@SpeakUnique.co.uk
- 20. You can purchase your voice by clicking **Pay Now**.
- 21. The **Download Now** button will appear at the bottom of the screen once your voice has been purchased.
- 22. To download the voice onto Apple and Android devices, search for “SpeakUnique” on your device’s app store and download the SpeakUnique app.
- 23. You will need to log into the app with your email address and Purchased Voice Code.
- 24. You can find the Purchased voice code by clicking the **Apple** or **Android** tab on your online account at www.SpeakUnique.co.uk.



- 25. To use the voice on a **Windows** device, you will need to install the voice in SAPI5 format. Installation instructions can be found on the left and the file to download on the right of the page.



ADDITIONAL RESOURCES

Voice Banking

- Boston Children's hospital voice banking information
 - <https://www.childrenshospital.org/programs/als-augmentative-communication-program/protocol-assessment-considerations/voice-preservation/voice-banking>

Message Banking and Double Dipping

- <https://www.mymessagebanking.com/>
 - This site guides you through the message banking process and allows you to organize and add transcripts to message banked phrases before importing to a communication device
- **DETAILED guide to message banking with Audacity (also available in appendix [here](#))**
 - [http://webia.alsa.org/site/DocServer/Voice Banking with Audacity NEW.pdf](http://webia.alsa.org/site/DocServer/Voice%20Banking%20with%20Audacity%20NEW.pdf)
- **General message banking tutorial**
 - <https://eatspeakthink.com/message-banking-tutorial/#communication-device>
- **Boston Children's hospital information/videos on message banking**
 - **Message banking process:** <https://www.childrenshospital.org/programs/als-augmentative-communication-program/protocol-assessment-considerations/voice-preservation/bch-message-bankingtm-process>
 - **Message banking video tutorials:** <https://www.childrenshospital.org/programs/als-augmentative-communication-program/protocol-assessment-considerations/voice/bch-2>
 - **Double dipping info:** <https://www.childrenshospital.org/programs/als-augmentative-communication-program/protocol-assessment-considerations/voice-preservation/double-dipping>
 - **Videos of others message banking:** <https://www.childrenshospital.org/programs/als-augmentative-communication-program/protocol-assessment-considerations/voice/bch-1>

Digital Legacy

- **Defining digital legacy**
 - <https://digitallegacyassociation.org/about/what-is-a-digital-legacy/>
- **Video covering 2 digital legacy services**
 - <https://www.youtube.com/watch?v=vkTAvFU0Ocw&feature=youtu.be>
- **Free video legacy service**
 - <http://www.recordmenow.org/>

Other Useful Resources

- **ALS Association Iowa Chapter information**
 - **(page 10) links to communication options for people with ALS:**
http://webia.alsa.org/site/DocServer/Iowa_Chapter_Nav_Tool_Version_10.pdf
 - **Communication applications for ALS:** http://webia.alsa.org/site/DocServer/Communication_Applications-NAV_Tool_092117.pdf

APPENDIX

Message Banking Information

From: ALS Association Iowa Chapter

BCH Message Banking™

BCH Message Banking™ is a way of digitally recording and storing words, phrases, sentences, personally meaningful sounds and/or stories using your natural voice, inflection and intonation. When a pALS uses a communication device, a synthesized computer voice will “speak” the sentence that is typed. Any message that was “banked” such as “I love you”, “I’m proud of you”, “Please do me a favor”, etc., will be spoken out exactly as you recorded it. These phrases are recorded when the pALS still has the ability to speak.

As developed by John Costello at Boston Children’s ALS Augmentative Communication Program, Double Dipping is a way to use your message banked messages to create a synthetic voice with Acapela. That way, you can use your energy to capture banked messages that you will really want to have available and then those messages can be used to create a synthetic voice. If one banks 800 or more good quality messages following the BCH Message Banking™ process, those may be used instead of needing to record scripted sentences into your computer. Both your banked messages and your Acapela synthetic voice may be used together in your own speech generating device. [Link to the Team Gleason webpage to learn more and request free support.](#)

Standard Message Banking

Preserving your voice with informal recordings can be a great way to make audio files. Many people enjoy purchasing and recording their voice on recordable storybooks, talking photo albums, or other video and audio recordings. Interviews can also be a great way to capture your story and your voice for the future. However, dedicated message banking involves recording common expressions in your own voice in order to capture your special cadence and delivery, so that you may use these recordings in the future in a speech generating device (SGD). You can record greetings, laughter, your quintessential sayings, words of affection, a blessing, an expletive, pet praise, etc. Then these recordings can then be exported to your computer or imported into a speech-generating device (SGD).

There is free audio editing software as well as online platforms that guide people with ALS to preserve their voice through an easy process. In the following paragraphs we will provide further details on how to use each of these recording tools, provide lists of ideas on what phrases to record, and then you can decide which method will work best for you.

Simple Steps for Creating Quality Message Banking Recordings

Select a method for recording. The message banking platform you use will provide microphone recommendations: handheld digital recorder or noise cancelling microphone.

Use the Generic or Detailed Message List as a guide, but include personalized messages. While it is certainly important to think about your typical daily routine and communicating needs to others, remember to include signature phrases and sayings that loved ones identify with you, like greetings, sayings, pet names, jokes, etc. Other message suggestions include:

- Names of family members, friends and caregivers.
- Important phrases like “I love you”.
- Sounds you make with your voice, like laughter and “mm-hmm” gestures
- Commands for your pets (they often don’t respond to synthesized voices)
- Polite requests and then the same request with a tone of more immediacy: “Please turn down the tv volume?” and “The tv is still way too loud!”
- Anything you say often.
- You might ask friends and family for suggestions—have they noticed any “catchphrases” that you use frequently?

Create and organize a list of messages you would like to record. Here are the links to both a “[Generic Message List](#)” and “[Detailed Message List](#)” to help provide examples of phrases you might want to record.

Take breaks when you feel tired. Pace yourself. Make a few recordings, test them, and rerecord as necessary. Take regular breaks to prevent fatigue and keep your voice strong.

Make your recordings when your voice is at its best. If there is a time of day when you speak more clearly or have more energy, make your recordings at that time. You might consider working with a recording partner who can name and save the files after each recording. It also gives you a chance to rest.

Choose a quiet environment and use a good quality microphone. It’s worth purchasing or borrowing a low-cost, good quality recorder or microphone. Please check with our Chapter as we often have a noise cancelling microphone and Hn1 recorders for loan.

Record and save each phrase as a separate file. Each sound file will be attached to a separate button on your communication device.

Audacity Message Banking

[Click here](#) to review the steps involved for using this free audio editing software for message banking. This software can be used with your personal home computer: Windows® or Mac OS X/macOS™.

1. Go to <https://www.audacityteam.org/download/>
2. Click “Download Audacity 2.2.2” for [Windows®](#) or for [Mac OS X/macOS™](#)
3. Click “Audacity 2.2.2 Installer”
4. Click “Save File”
5. Open the file audacity-win-2.2.2.exe and complete the Setup Wizard.
6. Open Audacity.
7. Under the Edit menu, choose “Preferences...”
8. Click Devices in the list on the left.
9. Under “Recording”, choose your microphone from the device list.
10. Click OK.

Tobii Dynavox Message Banking

Spearheaded by John Costello, Message Banking is a joint beta project between Boston Children’s Hospital Department of Otolaryngology and Tobii Dynavox. This system guides people through the message banking process. It helps organize, store, and download messages for use on any system that can replay them. Use of the Message Banking system is free to the user, as well as storing and downloading messages for personal use. Also, the system will work on various types of AAC devices and communication software.

To use this service go to mymessagebanking.com. The Zoom Hn1 recorder is recommended to complete this process and our Chapter can loan this tool at no charge.

Message Banking App

The [Message Banking App](#), created by Amy Roman of the Forbes Norris ALS Clinic in San Francisco, is a free, online tool that guides people with ALS to preserve their voice through an easy process.

As a speech therapist and augmentative alternative communication (AAC) specialist for 16 years, Amy realized that many people were not recording their voices even after being introduced to the idea. To make the process less confusing and overwhelming, she created Message Banking to help people make decisions on what to record and what’s the best equipment to use.

These recordings can be made easily using [Message Banking](#), a free app available at the Windows Store. This app provides suggested messages, push button recording, and a single press to download all of your labeled, MP3 recordings into a folder on your computer. The MP3 format works on all speech generating devices or Text-To-Speech (TTS) apps that play audio files. The Message Banking App guides you through every step of the message banking process and provides useful and meaningful message suggestions collected from people with ALS, caregivers and speech therapists.

Digital Legacy Information

From: Mary Archer & Siobhan Murphy, NHS Birmingham Community Healthcare

3. Digital Legacy & Memory Banking

What is a digital legacy or memory banking?

- Collecting stories about your life / decisions/ events that you may want your loved ones to know about.
- The concept of a 'legacy' refers to 'what a person leaves behind – how a person will be remembered and what they will be remembered for' (Breitbart, 2016, p.1).

How do I leave a digital legacy or memory bank?

- You can record stories into a digital format (similar to message banking but with more content e.g. memories / wishes)
- Alternatively you can keep a written bank of stories or gather meaningful mementoes into one place
- All records or communications that you keep online, in your name, are also part of your digital legacy. These may contain personal, social, financial or legal content. It is important that family can access this once you've gone. More information about this can be found at this website: <https://digitallegacyassociation.org/for-the-public/>
- You can use certain video-based websites where you can choose to answer questions about your life. Record Me Now is one option and is free to use: <http://www.recordmenow.org/>. Once recordings are made, they can be saved onto a disc or stored in iCloud for sharing electronically with others.



Comparison Table

	Message Banking	Voice Banking	Digital Legacy
How is it done?	By recording frequently used phrases and words using a mobile phone, voice recorder or audacity software. These messages are saved as a wav file on a computer.	By using paid-for, web-based software to record a set list of phrases using your own voice. The voice is analysed and then converted to create a personal synthetic voice.	By recording information and stories about yourself either using a voice recorder, computer microphone/ camera or a video-based app such as www.recordmenow.org
What is the result?	A bank of stored, personalised messages that reflect your personality. The message cannot be changed.	A voice file containing a voice that sounds similar your own. The voice will have a monotone quality so will not sound exactly like your own.	A bank of personal stories and information about yourself in audio or video format that can be listened to or watched by family and friends.
How is it used in a communication aid?	Each message is transferred onto a communication aid, one wav file per button. When you press the button you hear the message. Phrases that haven't been pre-recorded will use a synthesised voice in the communication aid.	The voice is installed on the communication aid. Everything that is typed is spoken using the personal synthetic voice.	It is not intended to be used in a communication device.

Comparison Table

	Message Banking	Voice Banking	Digital Legacy
How does it sound?	Exactly like the person doing the recording. This is a digital recording.	Close to your own voice but with a monotone quality. The quality varies for each person.	Exactly like the person doing the recording. This is a digital recording.
What is the cost?	Free, unless you decide to purchase a dedicated voice recorder or app.	The cost varies depending on what provider you use. Charities can sometimes help with funding.	Free, unless you decide to purchase a dedicated voice recorder.
How long does it take?	Typically 1-5 hours Average 4 month process	Low quality – 30 minutes High quality – between 3-7 hours (with a clear voice and no fatigue issues). For someone struggling with speech and fatigue the process can take many hours over many months. The risk is that if they do not manage to complete it, they may only be left with the option of using a synthesised voice in a communication aid.	Depends on how many messages/stories you record and how long each one is. You can record as little or as much as you choose.

Voice Keeper Message Banking Instructions

From: Voice Keeper Blog



Message Banking Tutorial

The Voice Keeper's Message Banking feature has two options:

- 1) Creating a synthetic voice from your own audio files ([message banking](#))
- 2) Creating a synthetic voice from your own phrases ([custom messages](#))

Your voice can be created separately from message banking only, custom messages only, voice banking only, or all combined. Then it's possible to choose the voice version you like the most.

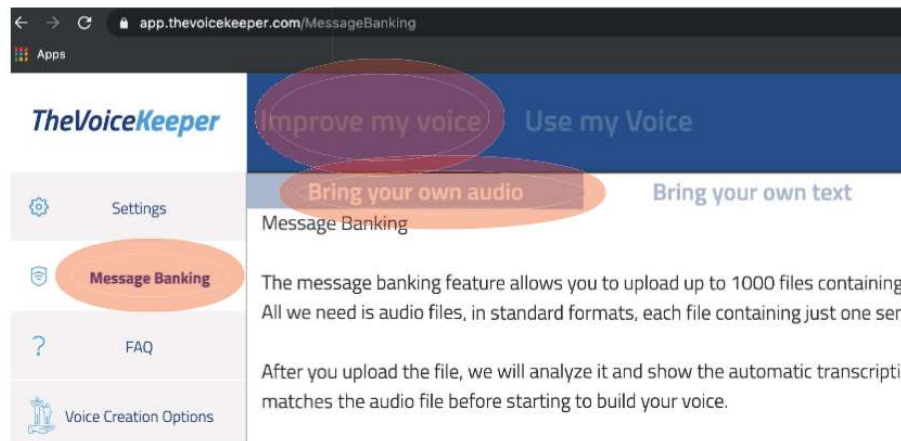
- 1) **Message Banking** process is composed of the 2 following steps:
- Uploading your audio files.
 - Verifying/editing the automatic transcription.

Summary:

The message banking feature allows you to upload up to 1000 files containing your recordings. All we need is audio files, in standard formats, each file containing just one sentence, and we will take it from there. After you upload the file, we will analyze it and show the automatic transcription. We highly recommend you to verify that the text matches the audio file before starting to build your voice. You will get an email when the voice is ready. It can take up to 1 day, depending on the number of recordings that you've uploaded. Minimum amount of 400 words (approximately 50 sentences) is required in order to build your voice.

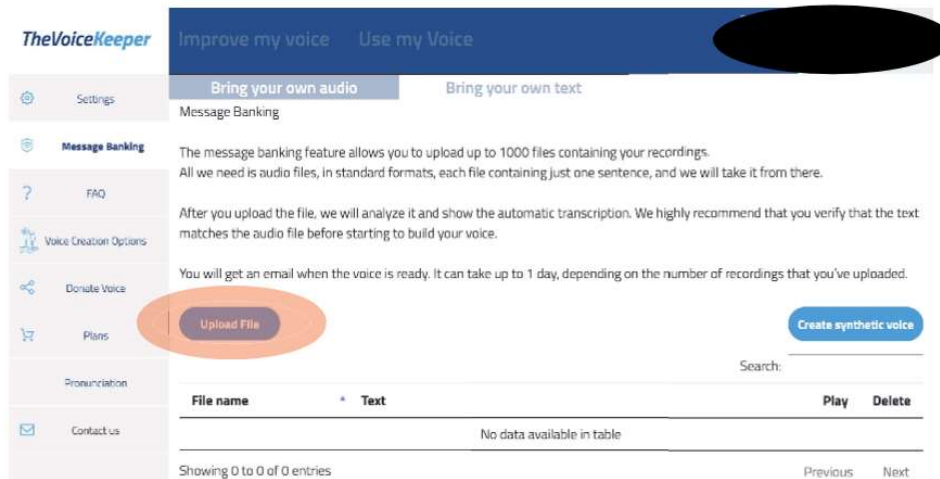
Tutorial:

- 1) Go to **Improve My Voice** tab --> **Message Banking** --> **Bring Your Own Audio** tab (or just follow this [link](#)):



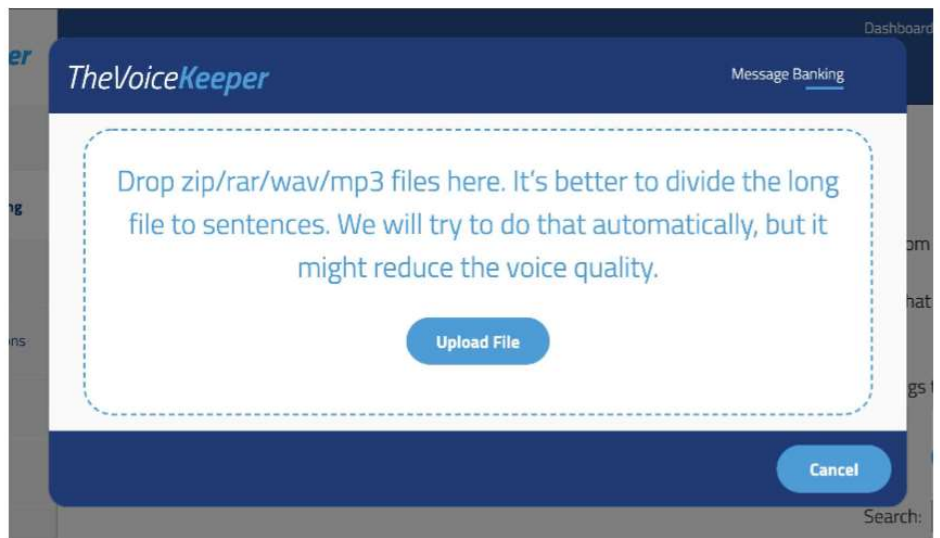
April 2021

2) Upload an audio file/s by clicking **Upload File** button:



The screenshot shows the 'TheVoiceKeeper' interface for 'Message Banking'. The 'Upload File' button is highlighted with an orange oval. The interface includes a sidebar with navigation options like 'Settings', 'FAQ', and 'Voice Creation Options'. The main content area explains the message banking feature and provides instructions on file upload and transcription. A table below the instructions is currently empty, showing 'No data available in table'.

3) Drop your file/s here. We recommend to divide the long file into sentences. We need a minimum amount of 400 words (about 50 sentences) in order to build your voice.



The screenshot shows a modal window for file upload. The text inside the dashed box reads: 'Drop zip/rar/wav/mp3 files here. It's better to divide the long file to sentences. We will try to do that automatically, but it might reduce the voice quality.' Below the text are two buttons: 'Upload File' and 'Cancel'.

April 2021



4) Verify that the text matches the audio file before starting to build your voice. Click **edit icon** to edit the transcription, then click **Save** button and you will see the **verification icon** turning green.

File name	Text	Play	Delete
diana-test.mp3	Hi, this is my personal voice. This is not a recording. In fact, I've never said these sentences before this is the time and station of the voice quality that can be achieved after using the voice keeper.		

Showing 1 to 1 of 1 entries



File name	Text	Play	Delete
diana-test.mp3	<div style="border: 1px solid #ccc; padding: 5px;">Hi, this is my personal voice. This is not a recording. In fact, I've never said these sentences before. This is the demonstration of the voice quality that can be achieved after using the voice keeper.</div>		

Save Cancel



File name	Text	Play	Delete
diana-test.mp3	Hi, this is my personal voice. This is not a recording. In fact, I've never said these sentences before. This is the demonstration of the voice quality that can be achieved after using the voice keeper.		

Showing 1 to 1 of 1 entries

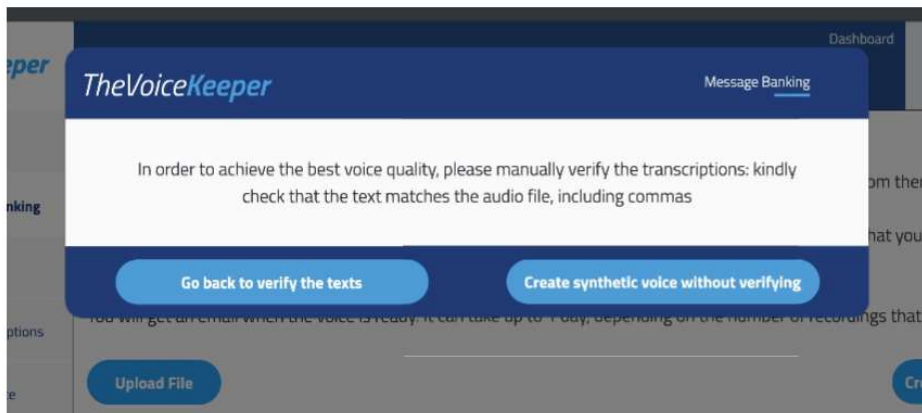
5) Click **Create Synthetic Voice** button:

The screenshot shows the TheVoiceKeeper interface. On the left is a navigation menu with items: Settings, Message Banking, FAQ, Voice Creation Options, Donate Voice, Plans, Pronunciation, and Contact us. The main content area has two tabs: 'Bring your own audio' (selected) and 'Bring your own text'. Under 'Bring your own audio', there is a 'Message Banking' section with instructions: 'The message banking feature allows you to upload up to 1000 files containing your recordings. All we need is audio files, in standard formats, each file containing just one sentence, and we will take it from there. After you upload the file, we will analyze it and show the automatic transcription. We highly recommend that you verify that the text matches the audio file before starting to build your voice. You will get an email when the voice is ready. It can take up to 1 day, depending on the number of recordings that you've uploaded.' Below this text are two buttons: 'Upload File' and 'Create synthetic voice'. The 'Create synthetic voice' button is highlighted with a red circle. At the bottom, there is a table with one entry for 'diana-test.mp3' and a search bar.

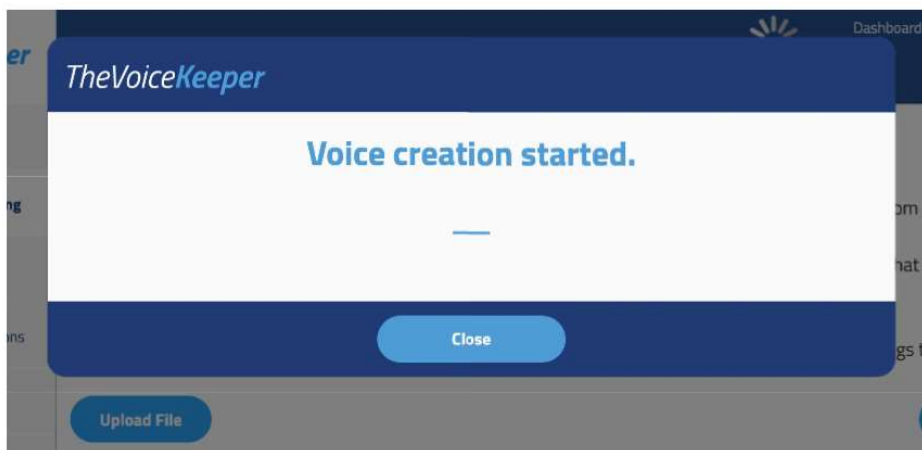
April 2021



6) You will still be able to create your personal voice without verifying the automatic transcription, but it could affect your voice's quality:



7) When the voice creation will start, you will get the following message:



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You will be able to see the **process icon** spinning:



The message banking feature allows you to upload up to 1000 files containing your recordings. All we need is audio files, in standard formats, each file containing just one sentence, and we will t

After you upload the file, we will analyze it and show the automatic transcription. We highly recom matches the audio file before starting to build your voice.

You will get an email when the voice is ready. It can take up to 1 day, depending on the number of r



You will get an email when the voice is ready. It can take up to 1 day, depending on the number of recordings that you've uploaded.

April 2021



2) **Custom Messages** (text banking) process is also composed of the 2 following steps:

- Uploading your own text file/separate custom messages.
- Recording your own custom messages.

Summary:

Upload your sentences as docx or txt file (UTF8 encoding) with each sentence in a separate line, or each sentence separately.

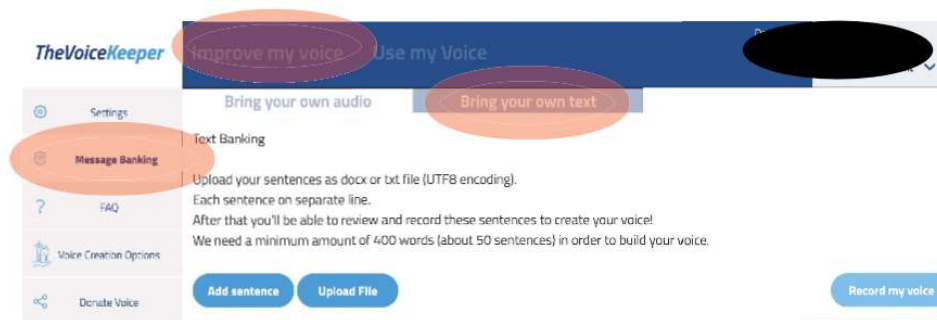
After that you'll be able to review your custom messages (grammar mistakes and punctuation) and record these sentences to create your personal voice.

You will get an email when the voice is ready. It can take up to 1 day, depending on the number of recordings that you've uploaded.

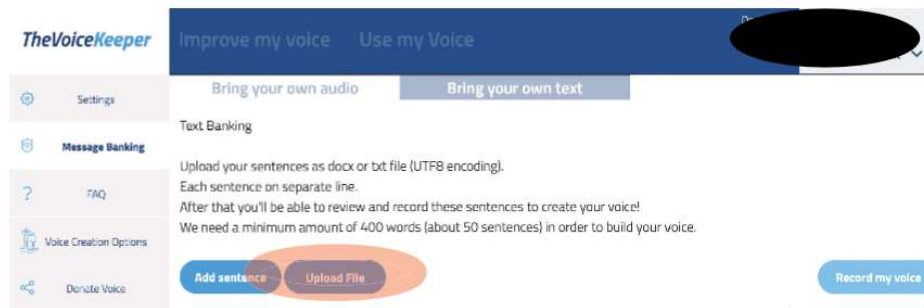
Minimum amount of 400 words (approximately 50 sentences) is required in order to build your voice.

Tutorial:

- 1) Go to Improve My Voice tab --> **Message Banking** --> **Bring Your Own Text** (or just follow this [link](#)):



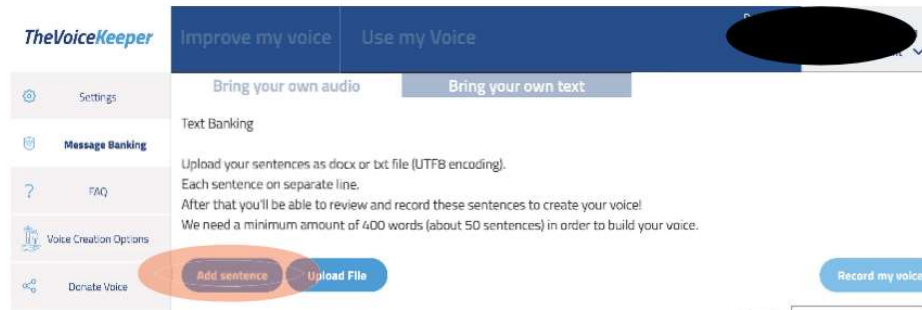
- 2) a) Click **Upload File** button to upload a text file with each sentence in a new row. Please use docx or txt file formats. Minimum amount of 400 words (approximately 50 sentences) is required in order to build your voice.



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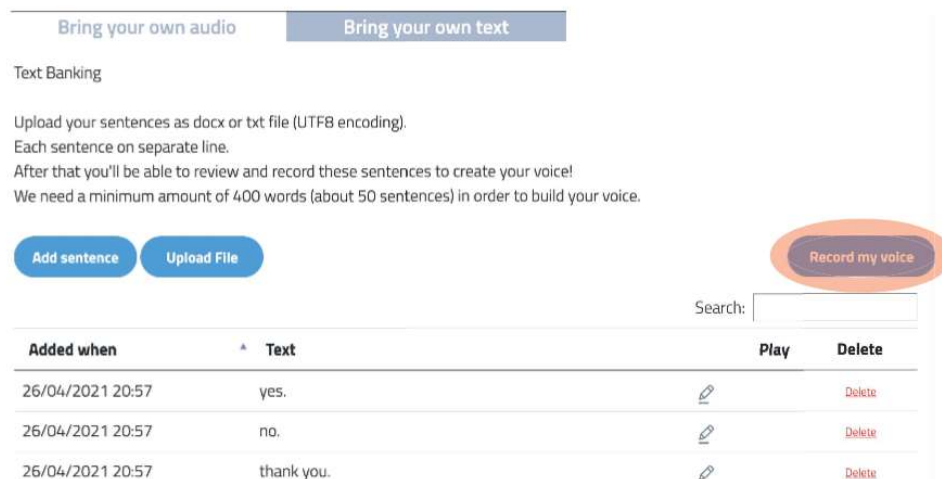
2) b) Click **Add Sentence** button to add each sentence manually. Minimum amount of 400 words (approximately 50 sentences) is required in order to build your voice.



3) You can edit your sentences (grammar and punctuation check) before recording. Please click on **Edit icon** and then on **Save** or **Cancel** button. You can also delete sentences you don't want to record by clicking on **Delete** button:



4) Click **Record My Voice** button to record your own custom messages. The button will become clickable after you upload enough sentences to build your voice:



Enjoy your personal voice!!!

April 2021

MymessageBanking.com Guide

From: Tobii Dynavox

Getting Started with Message Banking™



Message banking is a joint project between [Boston Children's Hospital Department of Otolaryngology](#) and [Tobii](#) with a goal of providing a free and open message bank for people at risk of losing their voice. This message bar guides people through the message banking process, helps organize the messages, stores the messages until needed, and provides ways to download the messages for use on any systems that can play back those messages. Storage of messages is free. Downloading stored messages for personal use is free.



Carry your recorder with you always to collect a variety of messages in a variety of settings. For message examples and tips, see [Message Banking, Voice Banking, and Legacy Messages](#) by John M. Costello, Children's Hospital.

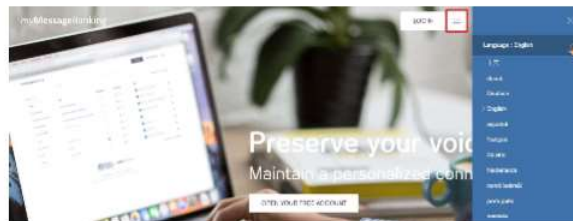
Step 1: Upload Message Recordings

1. Plug your high quality .wav recorder (such as Zoom H1n) into the USB port on your computer.
2. Open a web browser and navigate to [myMessageBanking.com](#) or [myTobiiDynavox.com/messagebank](#)



Both websites are localized to multiple languages.

To choose your language on [myMessageBanking.com](#)



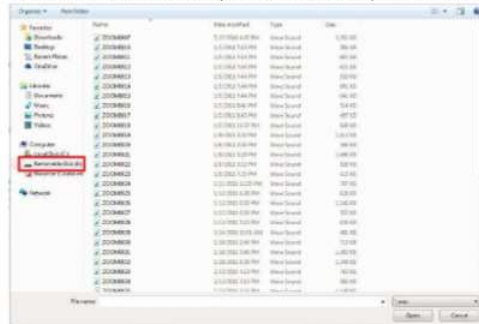
To choose your language on [myTobiiDynavox.com/messagebank](#)



3. Sign in using your myTobiiDynavox login credentials or create a new account (it is free).
4. Select the **Upload** button.



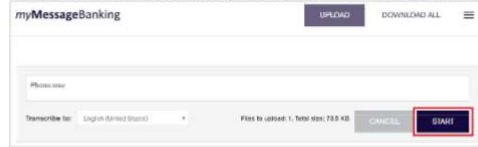
5. Browse to the recorder (Removable Disk) or wherever you have your sound recording .wav files stored.



6. Select the file(s) you would like to upload, then select **Open**.

Save time by selecting multiple files and uploading them all at once.

7. Verify that the correct language is selected in the **Transcribe to** menu, then select **Start**.



Message banking transcription works with 20+ languages. Just choose the language of the speaker from the transcription menu. If your language is not yet available, choose "Do not transcribe" then manually transcribe them yourself after upload.

8. A notification window shows the status of your upload. When your upload is complete, select **View my messages**.

Step 2: Manage and Organize Message Files

The sound files that you upload are transcribed, automatically labeled, and presented in the Message Bank. Once uploaded, you can play back recordings, make edits to the text, and add tags.

Adding tags to your messages is a great way to organize them. When you start using an AAC device, you'll find your messages by category (e.g., phone conversation, greetings, meals, etc). Think about the contexts in which a message may be used and add the relevant tags (each message may have multiple tags) but be mindful of how many tags you create, as an excessive number of tags will become difficult to manage and navigate.

Title	Text	Confidence	Recording	Tags
Phone English - United States	Please get me my phone.	100%		

Edit Individual Files

- Select the **Play** button to listen to the recording.
- If you need to change the text, click on the text in the text column.
- Select the **Add Tag** button to add a new tag.
- The confidence score represents the estimated accuracy of the transcription. Listen to the recordings, especially for messages with a low confidence score, and correct the transcribed text if necessary. If the transcription was accurate and required no correction, select the face icon and then select **Verify**.

Title	Text	Confidence	Recording	Tags
3 selected	Unknown text			
Phone English - United States	Please get me my phone.	100%		

Edit Multiple Files (Bulk Operations)

- You can perform actions on multiple messages at once by ticking the boxes beside the messages. To select all messages, tick the box beside the column header **Title**.
- Select **Replace Titles** to replace the title of each message selected with that message's transcribed text.



The Replace Titles tool is very useful if your message files have titles comprised of random numbers and letters assigned by your voice recorder!

- Use **Tag Selected** to add a tag to all of the selected messages.
- Select **Download Selected** to download just the selected messages.
- Select **Delete Selected** to delete the selected messages.

Step 3: Download Message Files

Messages that you download are saved in a single .zip file for easy import into your speaking software.

1. To download all messages: Select **Download All** at the top of the page.
To download specific messages: Tick the check box next to the files that you wish to download, then select



2. In the pop up window that appears, select **Download**.
3. Select **OK** to save your .zip file.

Message Banking with Audacity

From: ALS Association Iowa Chapter

(Zoom in to read or use link here for full size:

http://webia.alsa.org/site/DocServer/Voice_Banking_with_Audacity_NEW.pdf)

Voice Banking with Audacity

An illustrated guide by Jim Hashman (diagnosed with sporadic ALS, May 2013)

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Why Audacity? Are applications such as Windows Voice Recorder easier to use? Yes, but you have very little control over the result. However, if the results are sufficient for your needs, go for it! I chose to use Audacity because it is extremely powerful software that gives you complete control of the process, outstanding results, and it is free.

Audacity is a little more complex than simple recording applications, but most adults with beginning computer skills can learn the basics and start recording in 30 - 60 minutes.

Here are a few things you can do with Audacity that you can't do with most simple recording applications:

- Easily record and compare multiple versions of a phrase and pick the one you like the best.
- Edit a recorded phrase - cut off blank time or unwanted noise from the beginning or the end of the phrase.
- Adjust the volume of a recording after you recorded phrase.
- Record a set of phrases, such as 10 different greetings, and save them to the correct folder all at once.
- Record as long of a message as you want. Read your favorite children's book to a child or grandchild! Your only limit is the hard drive space on your computer.
- Easily select, check, and adjust your equipment from the home screen rather than have to open different volume or device control windows.

Section One: Install and Setup Audacity

Install Audacity

In your internet browser, go to: www.audacityteam.org



Click Download Audacity 2.1.2

Choose your platform: This guide was written using the Windows version, but it has been tested with a Mac and the instructions are the same.



Audacity works on Windows 10 - that is the platform I am using I did not have to install any additional drivers or updates. The default install file and options worked fine.

After the download is finished, double click the file **audacity-win-2.1.2** to install Audacity. It can usually be found in your "Downloads" folder.



Note: Most of this guide was written using Audacity version 2.1.0. A few of the menu windows look slightly different but the instructions are the same.

Before proceeding, plug in the devices you intend to use such as a headset or desktop microphone.

Setup Audacity

These steps only need to be completed once as long as you use the same equipment.

First, create a VoiceBank folder to store your Audacity project file and your voice bank recordings.

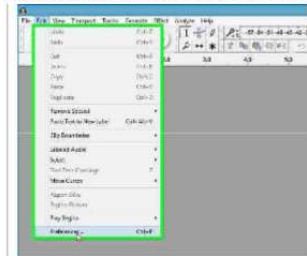


Remember to plug in your devices before you start Audacity so it can choose the correct configuration. Most of the time, Audacity will sense your equipment and automatically make the correct selections. On the next page I will show you how to check your setup in Audacity.



Double click the Audacity icon to start the software.

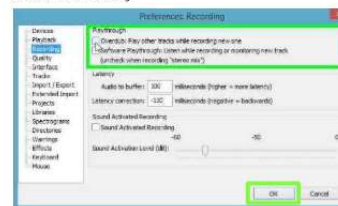
Once Audacity starts, click on the Edit menu and select Preferences... at the bottom of the list.



In the left column, select the Recording menu.

De-select (remove checkmark) from the Overdub option.

Click OK to save this setting.



Back on the main Audacity window, Select Mono Recording. This is an important step. Some devices will only play mono (not stereo) files. Besides, your voice is mono, not stereo.

In the Audacity window, find the type of recording menu - between Microphone and Speakers:



Click the small down arrow on the right end of the bar and select 1 (Mono) Recording.

Select your microphone and speakers

If you are using your computer's built in microphone and speakers you can probably skip this step, but it is good to know how to check your setup and change it if you get a new microphone or headset. On a side note, almost any desktop microphone or microphone headset will sound better than your computer microphone because they pick up less background noise and record your voice more clearly.

In the Audacity window, find the Microphone and Speakers drop down menus:



Click the small down arrow on the right end of these bars to see your choices and make your selection.

In this example I have selected my Yeti desktop microphone and my computer's built in speakers.

Again, you should only need to adjust these settings once, unless you change your equipment. Audacity will save these preferences for future projects.

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Getting Familiar With Audacity's Layout

Finding the tools you will use for voice banking.

Don't worry about memorizing these tools. In the tutorial I'll review each tool as it is used. For now, just find them on your screen.

The toolbars will adjust to your screen or window size:
In a small window the Cut tool is here



In a wider window the Cut tool moves over here



The transport tools work like a music or video player:

Pause Play Stop Jump to Start Jump to End Record



The cursor function group of tools determines what your mouse does when you click on a recording.



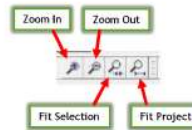
5

In the Edit tools group, find the Cut tool.

It is always good to know how to "undo" a mistake.

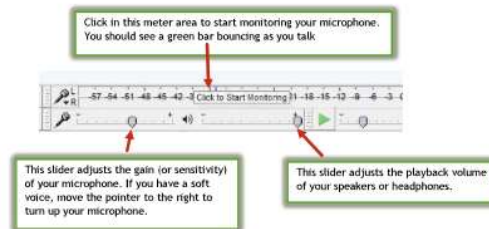


Zoom Tools



When you start Audacity the window only shows about 20 seconds of timeline. If you record a long phrase or message, use "Zoom Out" to see more timeline or "Fit Project" to snap the window to show your whole message.

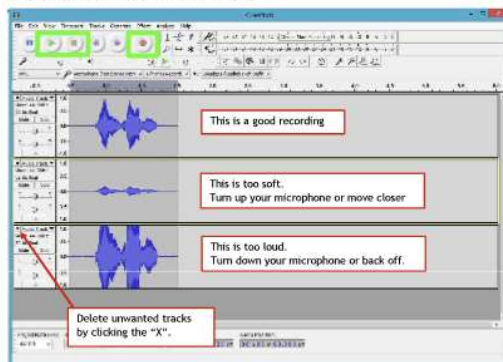
The volume control group adjusts the recording sensitivity of your microphone and the playback volume of your speakers or headphones.



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Testing Your Setup - Making Your First Recording

Click the red Record button. A track will appear and a recording line will start moving. Say something short such as, "Good morning!" You should see a graphic of a sound wave created as you speak. Click the yellow Stop button to end this recording.



Click the green Play button to listen to your recording (adjust your speakers' volume as needed).



Adjust the microphone sensitivity if needed, delete the test track, and record again.

Delete tracks that are too soft or too loud by clicking the "X" on the left side of the track name.

If you successfully recorded a phrase and played it back, congratulations! Your setup is complete and you're ready to get started with recording your voice bank.

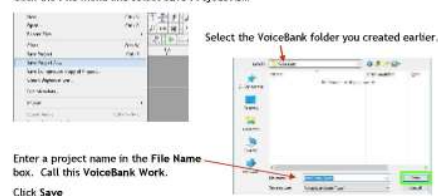
If you want more information about what we've covered so far, check the help file. The help file that comes with Audacity is very good and easy to navigate.

7

Saving Your Project

Now that your setup is complete, let's save the Audacity project file. All of your settings and volume adjustments will be saved, along with the phrase you recorded during setup (if you want to keep it).

Click the File menu and select Save Project As...



The project name will now appear at the top of the Audacity window.



When you saved the project, Audacity created two items in your VoiceBank folder, the project file and a data folder. The data folder contains temporary files that Audacity uses while you work. You don't need to worry about what is in there, so just ignore it.



From now on when you are ready to do some voice banking you don't need to start Audacity first. Just double click your "VoiceBank Work" project file. Audacity will start, open your project, and you can pick up right where you left off in your previous session.

However, if you do start Audacity first, it will assume you are starting a new project. In that case, click File then Open... find and select your "VoiceBank Work" project to get started again.

On to building your voice bank library!

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Section Two: Creating Your Voice Bank

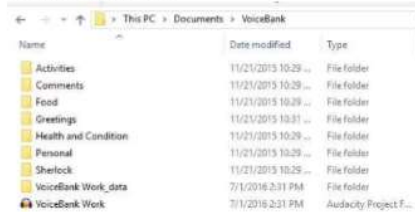
Getting Organized

Before you start recording phrases and building your voice bank library, you need a way to organize your files. A good method, and the one I use, is to create file folders by subject or theme.

Look at the suggested categories and phrases list at the end of this document and pick a few to begin with. I suggest "Greetings", "Personal", and "Health" because you will probably use these the most.

Open your VoiceBank folder. Inside of that folder, create folders for the categories of phrases you will record. If you're not sure, at least create one called "Greetings" because that is what we are going to record in this tutorial.

My VoiceBank folder looks like this:



Again, ignore that "...data" folder at the bottom. That was created by Audacity and is only used by Audacity while recording.

P.S. "Sherlock" is my dog. I recorded several of his commands and he responds to them!

9

Recording Phrases And Working With Tracks

Audacity records sound onto "tracks" - a term used in music recording studios where each instrument is recorded onto its own audio track. For voice banking, each phrase will be recorded onto its own track.

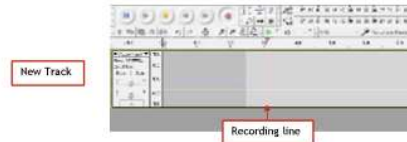
This tutorial is using greetings, so here are a few to get you started:

- Good morning
- Good night
- Hello
- It is good to see you again
- Hi Anna! (for specific people such as family members)
- It is nice to meet you
- Happy Birthday!
- Merry Christmas! (I recorded greetings for all kinds of holidays)

To start recording, click the Record button



A new track will open and a red recording line will start moving. Make sure you see the line moving before you start talking. Say "Good morning!"



Don't worry about talking right away. We will delete the extra silence in the next step.

After you say the phrase, click Stop



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When you're done recording a phrase, your track may look something like this:



Delete unwanted tracks by clicking the "X".

If you make a mistake or want to record the phrase again, click the Record button again. Note that each time you click Record a new track will be created and can fill up your project window pretty fast. So delete mistakes or unwanted recordings right away!

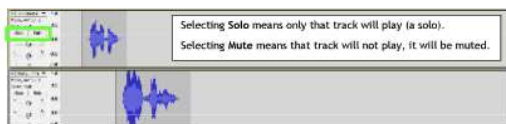
Click Play to listen to your recording.



This is all you need to know if you want to record and save one phrase at a time - jump to page 18. However, I encourage you to finish this tutorial to see what you are able to do with Audacity. You may at least want to know how to edit (page 12) and adjust the volume (page 14) of your phrases.

Mute and Solo

Once you have more than one phrase recorded and you click Play, all the tracks will playback at the same time creating a jumble of sound.



Selecting Solo means only that track will play (a solo).
Selecting Mute means that track will not play, it will be muted.

You can either Solo the track you want to hear, or Mute all the tracks you don't want to hear. Don't do both, use one system or the other as you work. I use Mute. When I record a phrase I want to keep, I mute it and go on to the next.

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Editing And Naming Phrases

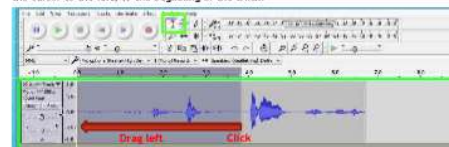
I trim my recordings because I like them to play right away when I click them, without any pause. But as you get better at recording there may not be a pause at the beginning, or extra time at the end and you can skip trimming.

This is a track I recorded. There is extra time and some unwanted sound at the beginning, and again at the end.



This is the part I want to keep

To trim the start, using the Selection tool click a spot just before the part you want to keep, and drag the cursor to the left, to the beginning of the track.



First click here then drag left

With the unwanted section selected, click the Cut tool.



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Voice Banking Guide

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Complete a similar action to trim the end. Click a spot just after the part you want to keep and drag the cursor to the right to the end of the track. Then Cut the unwanted section.



You don't need to be exact. A little space at the beginning and end is OK. Once you are used to the recording process, and your timing gets good, you may not need to trim at all.

When you have a recorded phrase you want to keep, name the track. The track name is in the group of track tools where **Mute** and **Solo** are located. The default name is "Audio Track."

Click on the words **Audio Track** to open the track menu and select **Name...** at the top of the list.

Enter the phrase you recorded in the track name box, such as **Good Morning**, and click **OK**.



The first 10 characters of the name you entered will now show for the track name. Even though only the first 10 characters show in this tiny box, use long names that make sense because these will become the file names when we export your phrases in the next step. Enter the full phrase you spoke if it fits in the track name dialog box.

Try recording a few more greeting phrases.



As you are working, occasionally click **File** then **Save Project** to save your progress.

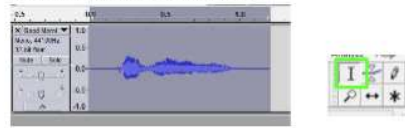
Take breaks! Save your progress as shown above and close Audacity. The next time you open your project everything you have done so far will still be there and you can continue where you left off.

13

Adjusting The Volume Of A Recorded Phrase

You recorded the perfect phrase, you like the way your voice sounds, but it is too soft! With Audacity we can fix that. In fact, you can use Audacity to fix the volume of phrases you may have already recorded with other software such as Windows Voice Recorder.

Here is your nicely recorded phrase that is too soft:



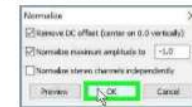
First select the phrase: Using the selection tool, double click anywhere in the phrase. The whole phrase should be highlighted as shown in the picture above.

The easiest way to adjust the volume is to let Audacity decide the best volume automatically.

Click the **Effect** menu and select **Normalize...** (about half way down the long list of choices).

"Normalize" means Audacity is going to analyze the volume of the phrase and try to make it "normal."

The Normalize window will open:



Click **OK** (the default settings work great). Your recorded phrase will be turned up and play back louder.

Or, adjust the volume manually. Click the **Effect** menu and select **Amplify...** at the top of the list.



In the "Amplify" window, move the blue slider a little to the right - 3 to 6 db is usually plenty - and click **OK**.

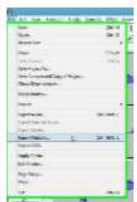
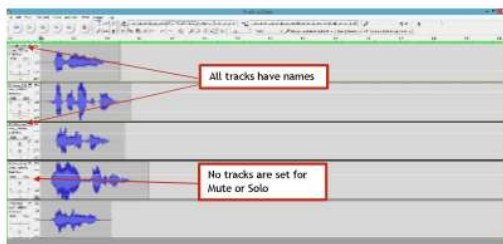
Note: If "OK" is grayed out and you can't click it, you are trying to turn up the volume too much. Move the slider back to the left until "OK" is turned back on. This is the maximum volume you can turn up this recording without getting "clipping" - digital distortion.

14

Exporting A Group Of Phrases

When you have several tracks recorded, check that you have named all the tracks you want to keep and have deleted the tracks you don't want.

No track should be marked **Mute** or **Solo**. Muted tracks will not be exported. Scan through your tracks and check that these buttons are **NOT** selected on any track.



Click **File** and select **Export Multiple...**

This is where the organizing we did at the beginning comes into play. You want to export the tracks into the category folder where they belong. Since we have been recording greetings, these phrases should be saved in the "Greetings" folder.



The first time you do this step you will have to browse and find your VoiceBank folder. Fortunately, Audacity remembers where you prefer to save your files making it much easier to save future recordings.

In the "Export Multiple" window click the **Choose...** button.

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Browse to your Voicebank folder, then select the **Greetings** folder, and click **OK**.

The folder you selected will now show in the "Export location:" box.



Click the **Export** button to start the process.

As each track is exported, a "Metadata" window will open. Check the **Track Title** and click **OK** (ignore the rest).



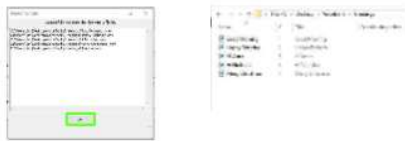
Leave the "Export format" set to the default "WAV" (wave) type. As of this writing this is the preferred format for Speech Generating Devices.

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When all of the tracks are exported, an "Export Multiple" report will open. Click OK. All of your recorded phrases will now appear in your "VoiceBank Greetings" folder.



Open the "Greetings" folder and test each file - double click the file and it should play back through your computer's default program for playing sounds or music. If they sound good, you're done! These files can be played on your computer, smartphone, iPad, Speech Generating Device, or anything else that will play a wave file.

If you are happy with these recordings, go back to your Audacity project and delete those tracks. That's right, delete them! If they successfully exported and you can play them, you don't need to keep the tracks in your Audacity project window. You can clear this window so you are ready for your next recording session. If for some reason you want to work on those recordings again, you can import the sound files back into Audacity.

Or... If the idea of deleting your working files sounds too scary, you have two other choices:

1. You can leave the tracks in the project and mute them. When you record more phrases and are ready to export, leave the old phrases muted so they will not be exported again.
2. Start a new project. Rather than work with one master project, some people may prefer to have different projects for each category of phrases.

Back up your work!

Once you have several phrases recorded, or perhaps at the end of each day of recording, save a copy of your VoiceBank folder on some other device. You could use a cloud service such as Windows One Drive, iCloud, or Google Drive, or get an external drive just for your voice bank. In the future, your recordings will be as precious as gold. You don't want to lose them because of a computer failure.

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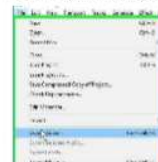
Recording And Saving One Phrase At A Time

Although I prefer to work on groups of phrases, working on one phrase at a time might be faster because it reduces the number of steps.

Using the steps on page 10, record a phrase.

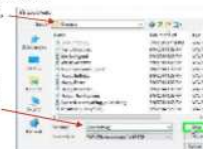


Click the File menu and select Export Audio...



In the "Export Audio" window:

1. In the "Save In:" box, select the folder where the phrase should be saved.
2. In the "File Name:" box, enter what you said for the name of the file.
3. Click Save.



The "Edit Metadata" window will open and show the file name.

Click OK.

Minimize Audacity, open the folder where you saved the file and double click the file. If it plays back on your computer and you are happy with it, you're done.

Go back to Audacity, delete the track, and go on to your next phrase.

Back up your work! Get in the habit of making a regular back up of your voice bank files.

18

Recording Long Phrases, Messages, Or Short Stories

You can record long phrases, messages to specific people, or even short stories (or life stories).

Audacity only shows about 20 seconds of timeline in the starting window.

If you want to see more, click the Zoom Out button.



Press the red "Record" button and start talking. If you need to pause for a moment to get a drink of water or turn a page, click the blue Pause button. The red record line will stop moving.



When you pause during recording, notice that the red record button is still pressed. Audacity is still in record mode waiting for you to continue. Consequently, none of the other buttons will work, such as play or rewind. When you are ready to continue, click Pause again. The red record line will start moving and you can continue talking. The result will be one continuously recorded message.

When your recording gets to the end of the visible timeline, Audacity will jump forward so you can always see what you are recording.

Often when recording short stories you need to stop for some reason. Perhaps you made a mistake or you want to listen to what you have recorded so far. In this case, click the yellow Stop button.

Note: If you made a mistake you don't have to start over. Find a point before the mistake where a natural break occurs, such as the start of a sentence or page. Using the steps on page 13 to trim the end of a phrase, cut from the break point to where you stopped. Then start recording again at the beginning of that sentence or page.

When you are ready to continue, move the cursor to the end of the previous recording. This is important because you want to continue your story where you left off, not back at the beginning.



Click Record. A new track will be created and start recording from the cursor.

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When you're done recording, click the Fit Project button in the Zoom Tools group to quickly see your complete recording.



Your full recording might look something like this (depending on the number of times you stopped and started):



When I played the whole recording, I noticed an unnatural gap between two phrases. If this happens, click near the gap to move the edit line to that point and use the Zoom In tool to get a closer look.



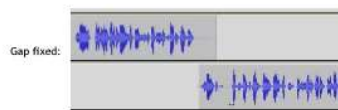
Sure enough, here is the gap:



In the "Cursor Tools" group, select the Time Slider.



Click and drag the section that needs to be moved.



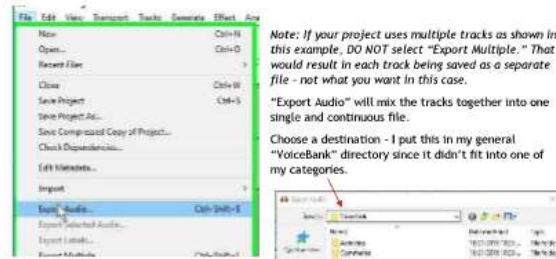
Sliding a phrase will have a domino effect if you have other stop points further down the timeline. Work your way down the timeline adjusting gaps that may have been created when you moved a phrase. When you are done, you will have a seamless message that sounds like you recorded it in one perfect take.

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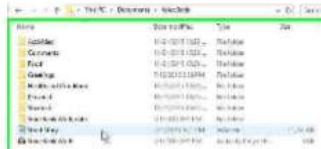
To save your message or short story, click the File menu and select Export Audio...



Name the file and click Save.



Click OK in the Metadata window, and your message or short story will be saved and ready to playback on just about any device.



That's it for this tutorial. Have fun Voice Banking!

A Few Suggested Categories And Phrases

These are some phrases I have recorded and how I organized them

Personal

Hey Jordan
 Hey Marcia
 Marcia call (calling for her from the next room)
 Hi Anna
 Hi dad
 Hi James
 Hi mom
 Annnnnnnnnnn (said playfully)
 Jaaaaammmmmsssss (said playfully)
 Jorrrrrrrrrrrrr (said playfully)
 Love you Anna
 Love you dad
 Love you James
 Love you Marcia
 Love you mom
 Love you
 Love you guys
 I Love you too

Greetings and Messages

Good evening
 Good morning
 Good night
 Happy Birthday
 Happy Easter
 Happy New Year
 Happy Thanksgiving
 I appreciate everything you're doing
 I appreciate your support
 It's good to see you again
 It is nice to meet you
 Merry Christmas
 My name is Jim
 Thank you
 Thanks for coming over
 Thanks for Everything
 You're welcome

Comments

Go for it
 Great Idea
 I enjoyed that
 I think so
 I'd like to go along
 I'm enjoying this
 I'm hanging in here
 I'd like that
 I'm OK
 It is important to me
 Nice job
 Please
 Thank you
 Please enter it on my keyboard
 Sounds good
 That looks good on you
 That looks nice
 This is my voice. I recorded some phrases before my speech was effected
 Wait a moment
 You look good

Activities

Check iTunes
 Check the computer
 I'd like to go to church
 I'd like to read for a while
 I'd like to read that
 I'd like to watch a movie
 Do you want to watch a movie?
 I'd like to watch the game
 Great game
 I'd like to watch TV
 Change the channel Please
 It would be fun to go
 It's on iTunes
 It's on the computer
 It's on TV
 Please turn on some music
 I loved the concert
 My favorite piece was
 The first one
 The Second one
 The Third one

Food and Drink

I'd like a beer
 I'd like a drink please
 I'd like a little Red wine
 I'd like some water
 I'm hungry
 I'm starting to feel hungry
 I'm thirsty
 It needs more salt
 That tastes good

Sherlock (my dog)

All done
 Bring it
 Come
 Good boy
 Lay down
 Sherlock come
 Sherlock
 Sit

Health and Condition

I don't feel well
 I feel fine
 I feel sore
 I have a cramp in my arm
 I have a cramp in my leg
 I have a cramp in my neck
 I have a headache
 I need a break
 I need another pillow
 I need to go to the bathroom
 I'd like a fan
 I'd like the window open
 I'd like to lay down
 I'd like to sit up
 I'd like to take a shower
 I'm comfortable
 I'm cold
 I'm hot
 It feels warm in here
 It is a little too cold in here
 My back hurts
 My Back Itches
 My Stomach hurts
 My Stomach is a little upset
 Raise my feet please
 Turn up the AC please
 Turn up the heat please