



Voice Preservation: Voice Banking and Message Banking-What You Need to Know.

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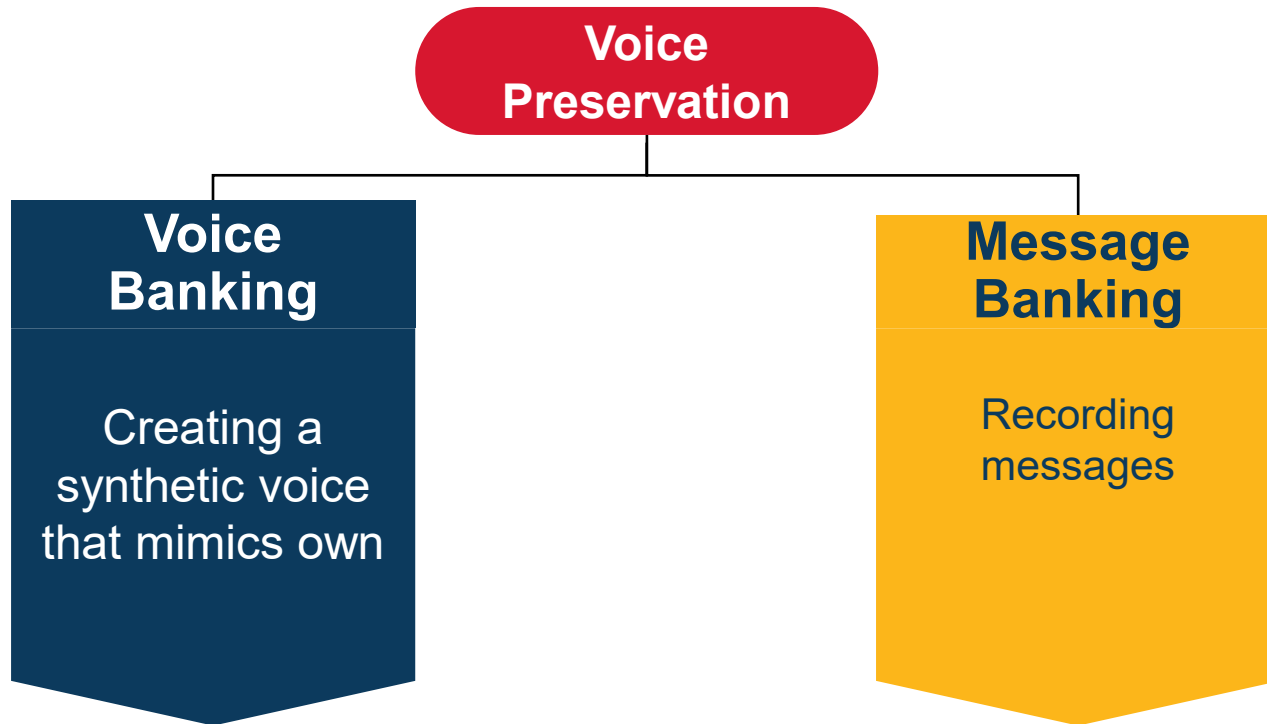
Disclaimers:

1. Technology is always changing
2. We can't cover it all today

Augmentative Alternative Communication

- Augmentative Alternative Communication (AAC)
 - Augmentative = the supplement
 - Alternative = an alternative form of communication
- This can include devices that have speech output.
- The idea of Voice Preservation is that it be *your* voice that comes out of that device

Voice Preservation



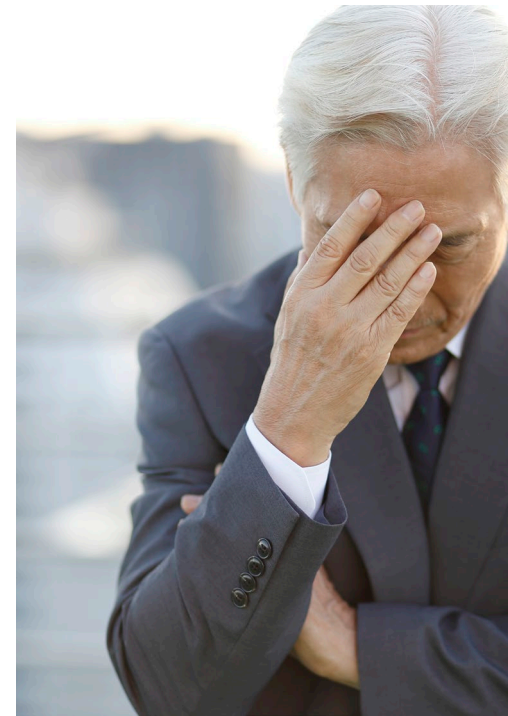
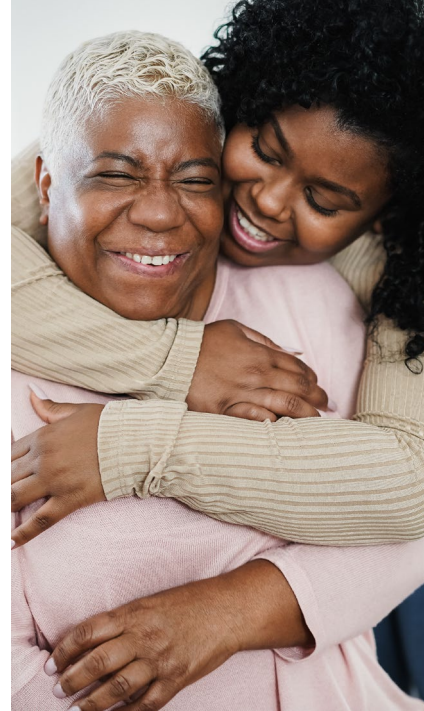
Message Banking

Message Banking is simply recording someone living with ALS speaking a

- Single word
- Phrase
- Sentence
- Story
- Joke
- Passage/Poem

Benefit: sounds exactly like them

Limitation: Can't realistically record every single message needed for communication



Message Banking process

**Audio file 'live' on website
for as long as needed**

Upload to website

Import to AAC system

Record Messages

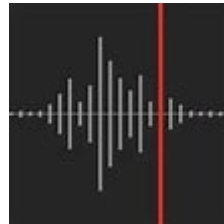
Use messages on AAC



Message Banking recording options



**Handheld Recorder
(Zoom H1n)**



**App
(AVR-X)**



**Within AAC software
or directly to computer
(not recommended)**

Voice Banking

Voice Banking is the process of creating a synthetic voice that mimics the person living with ALS.

Typically done by recording numerous (50-1800) pre-determined sentences to provide all necessary combinations of sounds

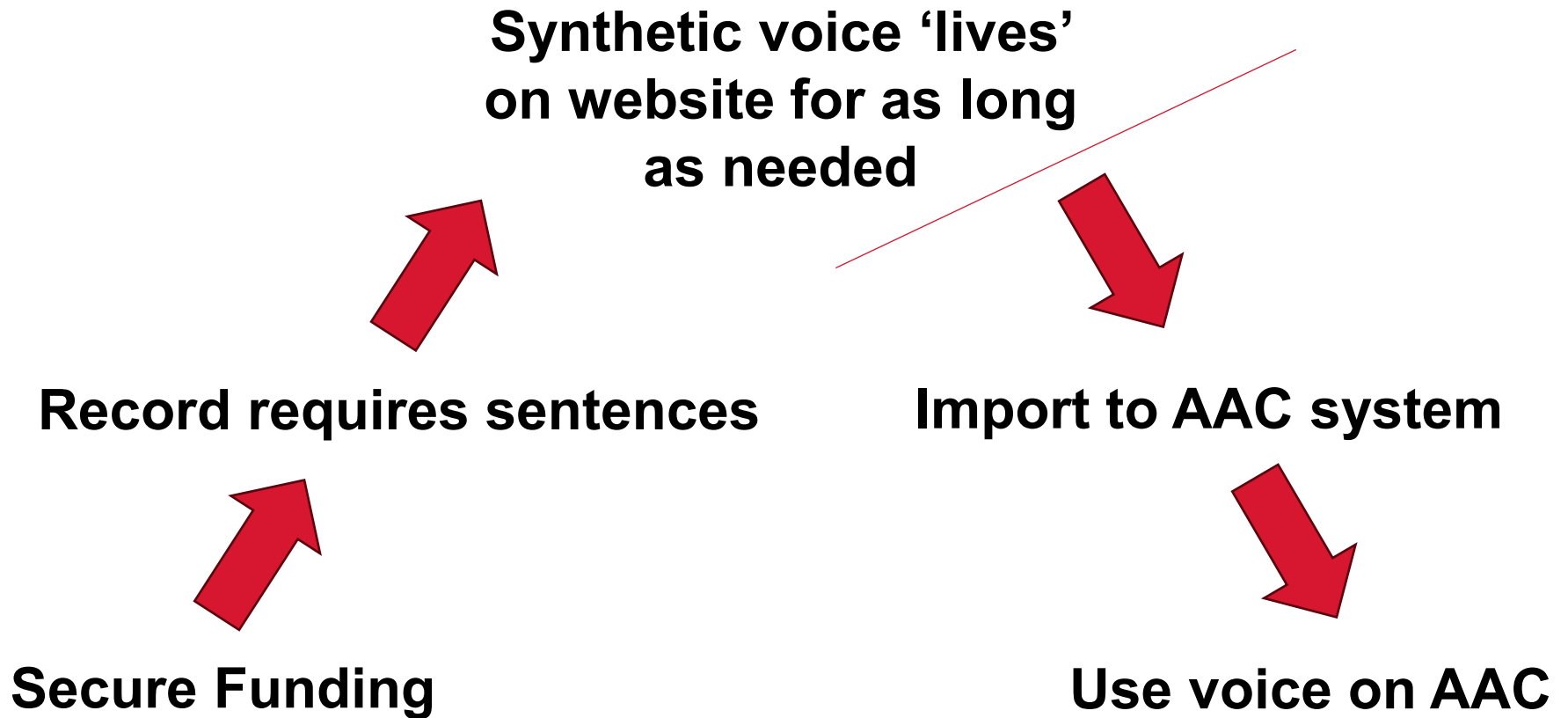
Can also be done by submitting previous recordings (depends on quality of recordings)

Benefit: Anything that a person wants to communicate via the speech output of an AAC system will be spoken in their synthetic voice

Limitation: It is computerized, the voice can be “robotic”



Voice Banking process



Voice Banking recording options



Voice Bank Comparison Table. *February 2021*

	Model Talker	MOV Acapela	Speak Unique	VocalID	Voice Keeper	CereVoice Me from Cereproc
Process	1575-3000 messages	50 messages. Can add 300 custom if desired	300 messages	1600+ messages	50-500 messages	1000 + messages
Time commitment	5- 7 hours	10- 60 minutes	60- minutes	5-7 hours	15-90+ minutes	Minimum two hours
Can add custom script	yes	yes	No	No	No	No
Bank from home	yes	yes	yes	yes	yes	yes
Premier before pay	Yes. TTS	Yes. TTS	Yes (pre-scripted)	Yes. TTS	Yes. TTS	No
Cost USD	100	99 yr or 999.	295.	1500.	250.	640.
Incorporate into SGD	yes	yes	Yes - limited iOS options	Limited options	yes	yes
Can 'double dip' from Message banking	no	yes	yes	no	yes	no
languages	English	16 languages	English	English	English and Hebrew	English
Equipment needed	Headset/computer	Headset/computer	Headset/computer	Headset/computer	Headset/computer Or iPhone	Headset/computer
Will accept and process unedited legacy audio	no	Yes, case by case, added fee may apply	yes	no	Yes* website states may be poorer quality	no
Voice repair	no	no	yes	no	no	no

⊕NOTE: Time commitment based on strong voice and ease of speaking.

Voice Banking: Samples of voice created by same person using:
Speak Unique (200 phrases)
Voice Keeper (100, 200 & 500 phrases)
Acapela MOV (50 phrases)



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Based on technology available as of
February 10, 2021

Apple Personal Voice

Pros:

- Quality | People have been very satisfied with the quality of the synthetic voice
- Ease | Creating your personal voice is straightforward with easy-to-follow-instructions
- Cost | Personal voice is free!

Cons:

- Only available on newer iOS devices (see link for details)
- Limits Technology Options | Can only be used on iOS devices
 - Only a few iOS based eye gaze devices and they have limited features (Computer Access, AbilityDrive)

Work Around:

- Can do both Apple Personal voice AND another Voice Banking software to cover bases
- Can use recordings of Apple Personal Voice to create a synthetic voice through traditional VB software

<https://support.apple.com/en-us/104993>

All this stuff about AI

Pros:

- Voices are VERY realistic! Include breaths, “ums”

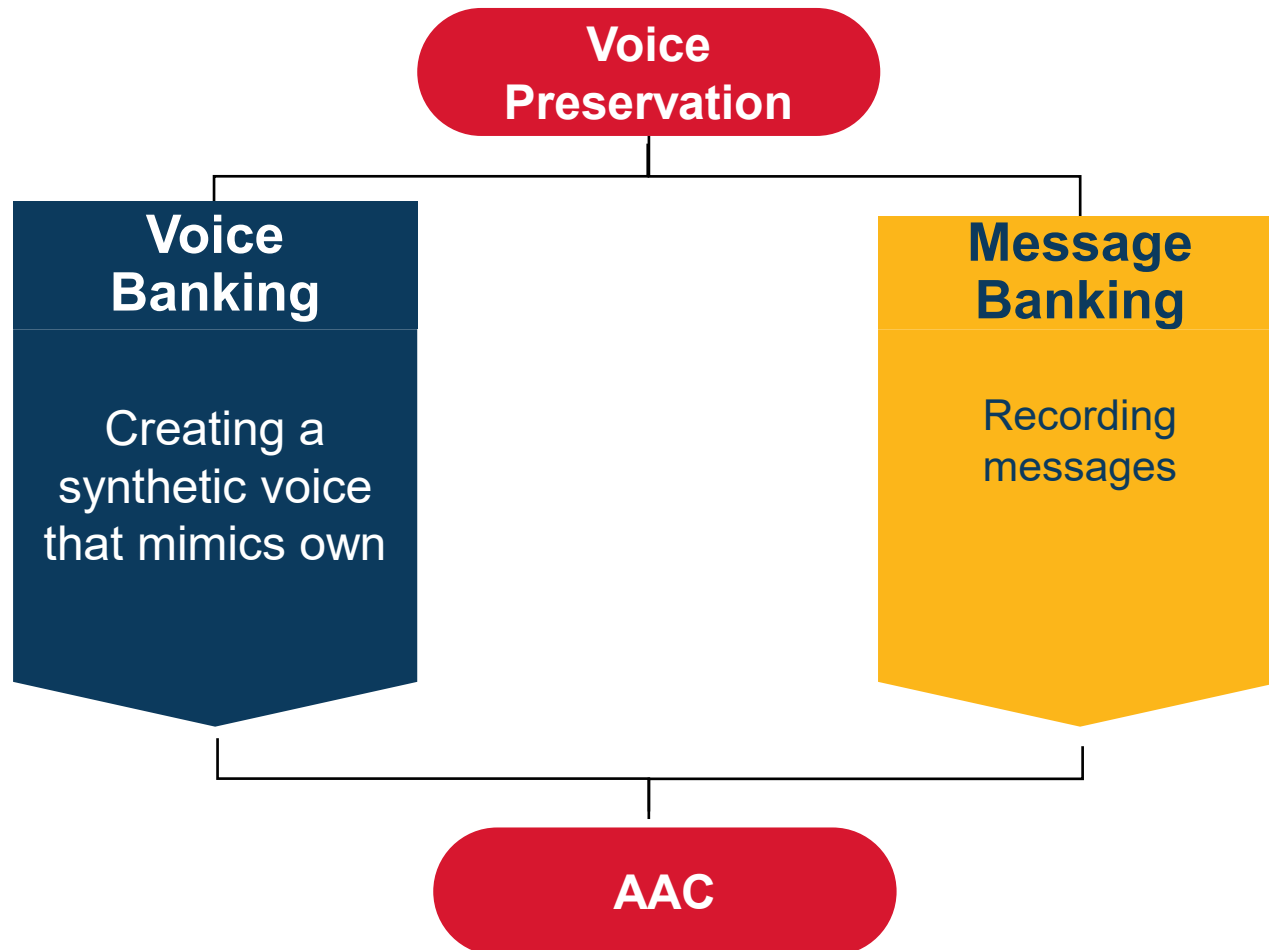
Cons:

- Requires internet connection
- Not readily incorporated into Speech Generating Devices
- Delayed output (and AAC is already slow)

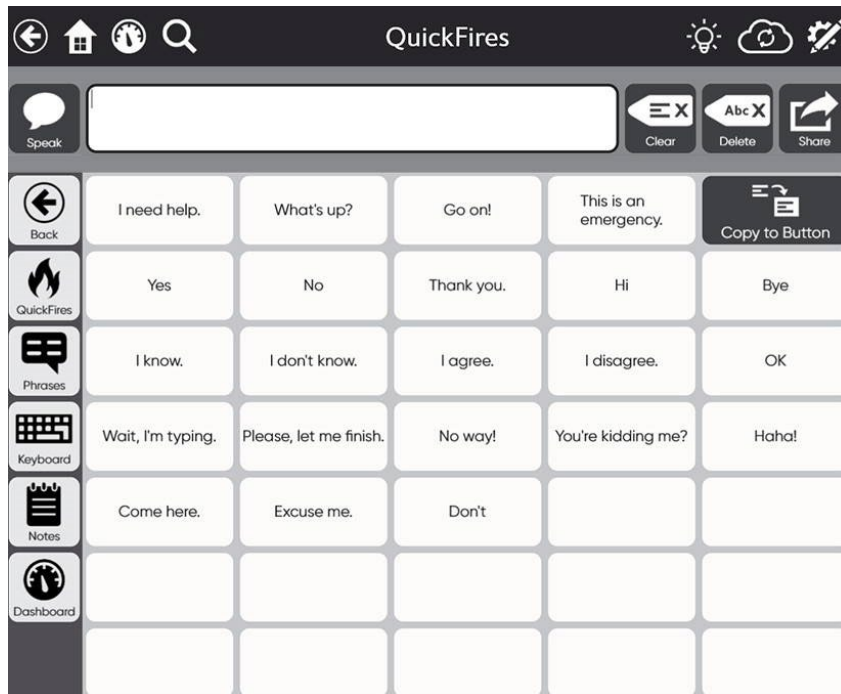
To learn more:

- Referral to Bridging Voice

Voice Preservation- Bringing it all together



Bringing it all together

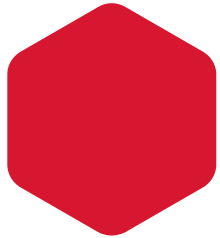


Who is a good candidate?



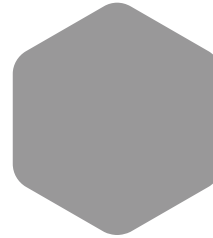
- Recommend completion before changes in speech noted
- Still able to do with mild or moderate speech changes
- Can have someone else complete recordings for you

Why to do it (according to Kate)



It's more you than Siri

Even if changes in speech are noted it will sound more like you than the generic computer voice



Have it "in the bank"

You don't need to use it but it doesn't hurt to have it



Family can keep forever

Messages can be downloaded to personal computer or family can log in to website



It's free!

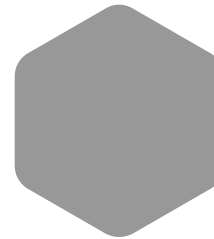
All options are either free or available for funding

Why to do it (according to research)



Identity

The role of a voice is a marker of identity for both speaker and listener



Familiar voices

Are special in evolutionary and neurological representations and their impact on others



Social Bonds

Unique features of a person's voice helps nurture and sustain social bonds and relationship

John Costello & Martine Smith (2021) The BCH message banking process TM, voice banking, and double dipping TM, Augmentative and Alternative Communication, 37:4, 241-250, DOI: 10.1080/07434618.2021.2021554

Resources

- Local ALS Chapter and ALS Clinic
- Team Gleason
 - www.teamgleason.org
- Jay S Fishman ALS Augmentative Communication Program
 - [Jay S Fishman ALSAugComProgram – YouTube](#)
 - bostonchildrens.org/ALSAugcomm

Bridging Voice

- www.bridgingvoice.org