



# To Hear When Traveling, Educate Your Smartphone

BY STEPHEN O. FRAZIER



I've come to agree with Mark Twain when he remarked that, "Twenty years from now you will be more disappointed by the things you didn't do than by the ones you did do," so I don't let age or hearing loss keep me from the grand adventure that travel can and should be. I grab my trusted smartphone and head out on new adventures.

My trusted smartphone is actually now my super smartphone. I've educated it with so many apps that it should qualify for an advanced degree. It knows so many things to help me overcome a serious hearing loss. If they've not already done so, traveler or not, people with or without hearing loss should get a smartphone and download some of the great apps now available. They'll face far fewer challenges when traveling and even in their daily lives with the help of a smartphone.

There are many different Bluetooth devices and applications available to help a traveler. If that traveler has hearing loss, Bluetooth-enabled hearing aids can be paired with a compatible smartphone for use with a variety of terrific apps. Not all hearing aids are Bluetooth-enabled, though. For those who have telecoil-equipped hearing aids, most of those apps will work with varying degrees of quality, by connecting a neckloop to their phone. But what are telecoils and neckloops?

Telecoils are small copper coils available in a majority of hearing aid models available to residents in the U.S. and all but one model of cochlear implant (CI) processors. Telecoils act as receivers for silent electromagnetic sound waves that carry sound generated by a hearing loop or neckloop. A neckloop is a version of earphones for the person with hearing loss. Plug it into a smartphone instead of earbuds and it will silently transmit the sound from the telephone to the telecoils in hearing aids or cochlear implants. If you're a person with hearing loss and your hearing device has a telecoil, a neckloop is worth much more than the \$50 to \$75 it costs. It's best to buy a neckloop with a built-in microphone and amplifier as you will need that extra boost with some apps, and the mic also makes it possible to talk hands-free on the telephone. For those without hearing loss, they can use earphones, earbuds or Bluetooth-enabled earbuds for the same purpose.

My old hearing aids did not have Bluetooth, so I used the old devices and an amplified neckloop when first testing and using some of these apps. I own an Android phone so I cannot speak to the actual performance of any iPhone apps mentioned here — I'm only relaying the information posted by their developers and found at Apple's App Store.

## Speech to Text

When traveling, as well as in everyday life, Google's **Live Transcribe** is the most heavily used app in my now highly educated Samsung phone. It converts speech to text and also identifies some background sounds and their intensity. I've used it to communicate with travel agents and with various airport and airline personnel both on the ground and in the air. I've even used it to understand what others were saying around the table at a meeting I recently had at Starbucks and when meeting with my doctor who I've nicknamed Doctor Mumbles. At Apple's App Store, the **Speechy** app is available for converting speech to text. It can go one step further and also translate that text into a different language. Touch a link and voilà—le texte est en français (Translation: The text is in French).

## Personal Sound Amplifier

Next on my list of needed travel apps is a personal sound amplification app. In these days of COVID-19, social distancing can put us six feet away from someone speaking to us and some masks reduce the important higher frequencies in that person's voice by up to 12<sup>1</sup> decibels — perceived as more than a 50% reduction.<sup>2</sup> Even those with good hearing could sometimes need help. Further, hearing aid microphones are really effective only for sounds coming from six feet or so away.<sup>3</sup> I have my old Pocketalker but I don't need it with my smartphone and the **Ear Scout** app. With this app you can not only hear what's being said to you, but you can also record it and email that recording to yourself or someone else. Ear Scout has a fine-tuning feature that lets the user control which frequencies get boosted, a little or a lot. If you have a telecoil in your hearing device, this app works best with a neckloop. Be careful, though, if you're listening to a speaker some distance away and then someone right next to you speaks, that voice will blast you. iPhone users can turn to EarMachine. *Note: The Ear Machine app is no longer being updated and hasn't been for five years. It may work perfectly fine, but there should be no expectation of future enhancements or bug fixes.*

These apps allow individuals to use their phones as remote microphones for closer pickup of a speaker's voice and additional control for boosting higher frequencies.

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<sup>1</sup> Martin, BSc, *Hearing Journal*, Oct. 2020

<sup>2</sup> Dave Meniccuci, Sandia National Labs, Noise Primer, 2005

<sup>3</sup> Jinghao Medical, August 2021

There's some latency so it works best if you use the telecoil only setting on your hearing device rather than the mic/telecoil setting and focus on the sound coming from your phone rather than any unaided sound.

## Background Sound Reduction

Sometimes amplifier apps pick up too much background noise, making it difficult to identify the sounds that make up actual words such as the noise in an airport concourse or a hotel lobby. Believe it or not, there are apps that get rid of a good deal of that unwanted sound. They can actually identify those sounds of a person speaking and reproduce them without reproducing the unwanted background sounds. Again, using Bluetooth, earbuds or a neckloop and the telecoil (t-coil) setting on hearing aids, the creators of **Chatable** claim it can erase most of the background sounds. It identifies the voice of the person speaking and creates a new audio signal that sounds almost identical to the original while it removes the background sounds. Although it's on Google Play Store's list when I search on my desktop computer, it's not there when I do so with my Samsung smartphone, so I haven't been able to download it and can't attest to its performance quality.

**AmiHear Hearing Amplifier** is a similar app and unlike with Chatable, Google didn't play with me, it let me find and download this app. It's marketed as a Pocktalker wannabe that is "perfect for people with hearing loss who do not want to use prescription hearing aids!" They say AmiHear turns your headphones into hearing aids and also provides unlimited recording, something that traditional hearing aids cannot provide. Using your phone's microphone to pick up sound, AmiHear can denoise, amplify and record sound around you simultaneously. Use it for a doctor visit as I have, and when you get home you can review what was said and write it down to help you remember. Use it to hear a tour guide and you'll have the "official description" of the sites you visited and snapped photos you took. This app can reduce background sounds to some degree so I use it in certain settings where ambient noise is a problem but, otherwise, I use Ear Scout because it works with either a neckloop or Bluetooth while AmiHear will work only with my neckloop. The latter are working on a revision to the app that will allow it to recognize Bluetooth hearing aids as well as Bluetooth earbuds or earphones. With Ear Scout I've found it best to use Bluetooth rather than a neckloop and let the person I'm talking to hold the phone which can be challenging if using a neckloop.

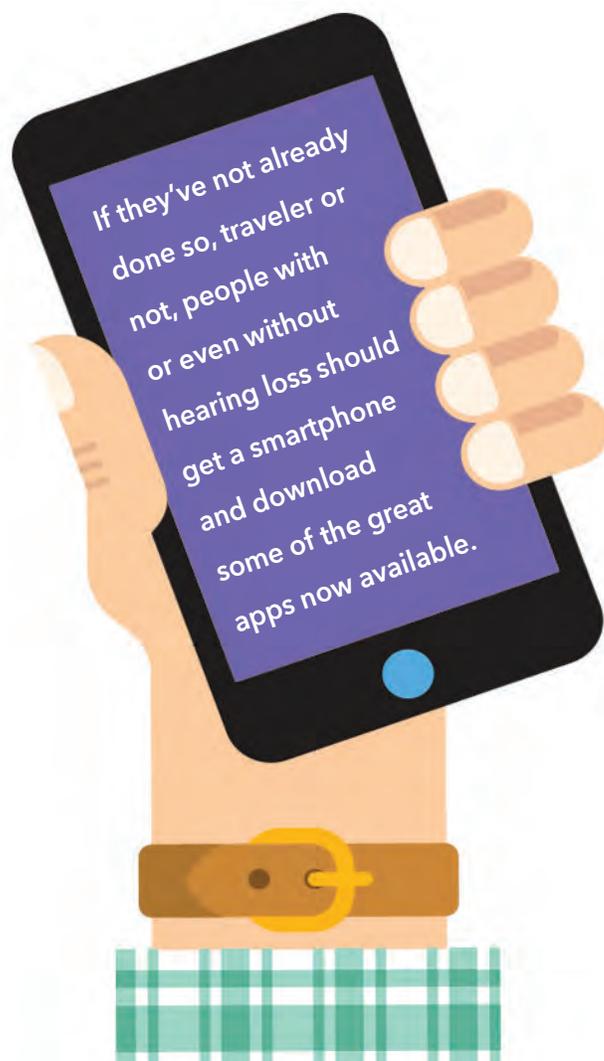
## Watching TV

Long layovers can stretch a traveler's patience even if there's a nearby TV providing entertainment. Often the

captions are not turned on and ambient noise makes it nearly impossible to understand the dialog. Well, the **Tunity** app can sometimes solve the problem. Tunity allows users to hear live audio even from distant or muted TVs. It identifies a live video stream and its exact timing, syncing the audio with the user's smartphone. Use it at bars, gyms, restaurants, waiting rooms, airports and even at home. Hear with your smartphone connected to hearing aids via Bluetooth or a neckloop/t-coil option. Point your smartphone's camera at the TV screen and Tunity will do the rest. I didn't believe it could really work until I tried it. It took a little practice but then it somehow determined exactly where I was located, what program I was watching and, unbelievably, it provided the actual sound for that program. For us lipreaders it even lets us sync the sound to the lips of the speaker if they are not already in sync. Available for Android or iPhone devices, some users have reported problems with it but I found it has worked fine for me. After downloading the app, users are allowed to use it free for a short time and then there is a charge to use it.

## Safety Alerts

Safety alert apps could be especially welcome when you're traveling. **Sound Alert**, available for both iOS



and Android smartphone operating systems, hears the smoke alarm going off in another room when you don't. It will alert you via notifications, vibrations and flashing lights on your smartphone or tablet when any preprogrammed sound goes off in the house or hotel such as a smoke alarm, a doorbell, a ringing phone, etc. Smoke and carbon monoxide sounds are installed in the app. For a doorbell, a ringing phone or other sounds, you record the specific sounds in your environment, and it recognizes them. There's a free Android or iPhone version of this app that's not terribly highly rated or there's a "full" version that's \$36.99 for the iPhone and \$54.99 for the Android version. At those prices, one would hope it works well but there were no user reviews posted for these versions and I have not tested it.

**SOS Alert** is another free emergency app that helps you out whenever your safety is at risk by reaching out to your emergency contacts and providing them with your current location. It has no ads, a user-friendly interface and the widget for sending SOS Alerts works with just one tap. Why would you want this when you can use that same cellphone to call for help? OK, you're hiking in the mountains in New Mexico and realize you're lost, or you've strayed from your friends on a visit to Paris (and you don't speak French). In the case of an emergency like that, a link of your current location on Google Maps is sent as part of your SOS to your emergency contacts so that they can locate you accurately. The emergency contacts and the SOS message are stored on your device so only you and your listed contacts have access to it, others do not. You can edit what the SOS message says and add other useful information regarding your emergency.

For iPhone users, **My SoS Family**, too, connects to a "first responder" family and friends list you create which keeps them informed in an emergency. Contacts are alerted instantly via the app, not your phone. It calls and texts your emergency contacts using Apple's Find My Device feature.

## WiFi Audio Streaming

WiFi-based audio streaming is becoming more prevalent in places of worship, sports bars and gyms in this country. It uses a venue's WiFi system to silently transmit sound directly to your smartphone IF you have the right app installed. That app can vary from one venue to another, and you might have to download it on the spot to access their system but there's one free version that may interest the hearing as well as those with hearing loss. It's usually found in gyms but could be used elsewhere and, by having the app installed on your phone, if you get into such a setting and can't hear what the speaker is saying, what's on the TV or whatever, turn it on and see — it may be available on WiFi that matches your download of

**MYE Fitness Entertainment** that's been integrated into leading health club mobile apps. It may also be the app used in sports bars to hear the TV. To hear the audio, you can use Bluetooth or a neckloop connected to your smartphone. I'm hoping my gym will be using this app when I end my COVID-19 sabbatical and return to my cardio rehab routine there.

## Language Translation

Foreign language translation was already mentioned as a feature of the iPhone Speechy app. There's a plethora of such apps available for Android phones. My pick is Google's **Translate**. It and other such apps enable travelers, students, business professionals, employers and medical staff to read, write and speak in more than 100 languages, anywhere in the world. Just start speaking and Translate recognizes your voice and translates to your desired language. I recently used it to communicate with an elderly Chinese gentleman in a local oriental supermarket when I found he did not speak English. Turned out I was in the Japanese aisle and the hoisin sauce was in the Chinese aisle. Next time I'm in Paris I won't need to seek out an English speaker when I get lost in the subway — French is one of the many languages my smartphone speaks almost like a native.

## Quiet Places

Last, but not least, on my list of "must have" apps is **SoundPrint** — an app that helps you find a quiet place to relax and talk with your traveling companion about the new sights and sounds you experienced that day. This app has not been around for a long time, so I was surprised by its length and variety when I did a search for quiet restaurants in my hometown of Albuquerque the first time and found a list of more than 40 quiet to very loud eateries posted. SoundPrint is a free app available at Google Play and the App Store. It gives users access to the huge and only public database of sound levels taken at more than 100,000 venues worldwide. Easy to use, the app is a valuable tool for finding a quiet restaurant, bar or cafe wherever you are, based on the ambient sound level experienced by others. It also allows you to rate and review places based on their service in addition to the sound levels you experienced on your visit there. Because SoundPrint's engineers have found that, unlike iPhones, not all Android smartphone microphones are up to the standards necessary to take really accurate sound level readings; the built-in sound meter in the app currently works only with certain Android phones. If that's the case and it won't work on your phone, you can still submit a rating for the place you want to add to the SoundPrint database by offering a subjective rating for the sound level such as quiet, moderate, loud or very loud.

If that doesn't suit you, you can, as I've done, download one of the many sound level meter apps available to take an objective reading you can use in submitting your evaluation of the venue or location.

As made clear by the creators of SoundPrint, the quality and ability of smartphone mics varies as does the available volume from the phone so performance will vary from one phone to another with these apps.

Some of the apps reviewed here are free, some are not. Some of those free ones have an advanced version for which there are charges. Especially for each of the free ones, you've got nothing to lose and a lot to gain so, as Mikey said to his brother in the long-running Life cereal commercials, "Try it, you'll like it."

The ancient Chinese philosopher and writer Lao Tzu said, "A journey of a thousand miles must begin with a single step." That single step can be the decision not to let hearing loss deprive you of the opportunity to explore the tremendous variety in people, places and practices that travel can afford those brave enough to take that step. Travel offers the reward of being able to experience everyday things as if for the first time where very little is familiar, and much is waiting to be explored.

## Tried and New Travel Tips

Over the years I copied, pasted and saved travel tips that I would come across on the internet or through my reading that were intended to help people with hearing loss. Some are just good common sense, but others have information that was new to me and may very well be new to others so, in addition to educating their smartphone, readers might want to review the old or possibly, to them, new ideas in these travel tips.

If you are a person living with hearing loss, obviously the first thing you need to do is acknowledge that fact and adjust your behavior to compensate for your inability to sometimes hear well enough. Few people will recognize that you have hearing loss unless you alert them and let them know what accommodations you require to communicate with them. After that, consider these tried-and-true strategies that will make travel and the subsequent exploration of strange and exciting new places and experiences more meaningful.

## In Preparation

- If you have and are experienced with a computer, book hotel and other travel reservations and your ticket online. You won't have to struggle to hear and understand a fast talking, accented agent and you'll receive email confirmations that give you a written record of just what arrangement you've made.
- If you have a smartphone, download a speech-to-text app described earlier to help communicating with

ticket agents and others during travel when hearing them is difficult.

- If you have telecoil equipped hearing aids, have a neck-loop to take along and download the Sound Amplifier app at Google Play or a similar Apple app. It will turn your smartphone into a pocketalker for added flexibility in communicating with others.
- Sign up to have flight delays or gate changes sent to you as text messages instead of phone calls or emails.
- Download a captioned phone app so you will have captioned access during your trip for placing and receiving calls.
- Batteries may be hard to find after you arrive at your destination and your many devices need power to work so be sure to pack fresh batteries for each of them. Check also that all your chargers are working well and bring an extra if available.
- Should you have one, pack an extra set of hearing aids for the trip.
- If your hearing aids are rechargeable, be sure to take the charger and put it in your carry-on in case your checked luggage doesn't arrive with you. There are small, almost credit card sized portable chargers available for those rechargeable hearing aids with removable batteries from [Poweronebatteries.com](http://Poweronebatteries.com).
- Take a pen and notepad with you to communicate with ticket/gate agents if needed.
- Download the SoundPrint app ([soundprint.co/](http://soundprint.co/)) for its quiet list that identifies restaurants and bars in cities that are less noisy and more conducive to conversation.
- Print your ticket and boarding pass at home or send it to your smartphone.
- Apply for a Transportation Security Administration (TSA) Notification Card about your hearing condition — get one at [tsa.gov](http://tsa.gov).
- If you're traveling by train or bus, instead of or in addition to air, most transportation companies offer their own apps that will give you access to timetables and provide alerts for gate changes or delays. Familiarize yourself with these and any other apps in advance so you don't have to learn their operation under pressure.

## At the Airport

- Show your TSA Notification Card to the agent at the security check-in to facilitate communication. It might even get you moved over to an express line.
- If available, take a seat near the agent's counter at the gate and alert the attendant to your hearing loss. Request that you be notified of any emergency or other announcements. Often the agent will add you to the group allowed to preboard.

- Have your smartphone handy to use as a remote microphone personal sound amplifier via a neckloop or Bluetooth and the appropriate smartphone app.
- As you board the aircraft, alert the flight attendants about your hearing loss so they will know to pay attention to your communication needs and read the safety instructions in the pocket in front of you — you may have difficulty hearing verbal instructions from the flight crew.
- In the event you're on a long flight where music or other entertainment is offered, keep your neckloop accessible — it will plug into the sound on most aircraft and provide you with better quality sound than the earbuds handed out by the airline. If you want to be safe, get a two-pronged adapter for your neckloop — some airlines still use them instead of the typical single pronged jack.

## At Your Hotel

- Once you reach your destination, if staying in a hotel, alert the desk clerk to your hearing loss as you check in and request an ADA kit for people with hearing loss. (It's a good idea to make this request when you make your reservation.) It will include such items as an alarm clock with signaler, a bed shaker and built-in flashing strobe light to alert you if the alarm clock goes off, the phone rings, someone knocks on your door or if a smoke/carbon monoxide alarm goes off in the room. It could also have a telephone in-line handset amplifier that plugs into the hotel room's existing room telephone line to amplify all callers, making it easier for guests who have trouble hearing on the phone to hear their conversations.
- Have documents and identification cards you will need ready to show at the desk either in printed form or on your smartphone to help speed up check-in. Keep voice communication limited to avoid some things being repeated or having any misunderstandings.

## Out and About

- Again, advocate for yourself. Let your tour guides and fellow travelers know about your hearing loss and provide specific suggestions on how they can help you hear your best.
- Tell the guides that you will try to stay close to them so you can better hear them and see their face for lipreading.
- If requested, many tours offer assistive listening devices so you can hear the docent or tour guide even when you're not right close by so make such a request. If the device offered comes with earphones, check to see if you can connect your neckloop into it instead.

That way you'll hear ambient sound that would otherwise be masked by the earphones, and you'll escape the danger of damage or loss with your hearing aids. Many theaters, concert halls and places of worship also have such systems so, if not offered, ask about their availability.

- Again, keep your smartphone or other assistive listening device handy to hear others using a neckloop or Bluetooth in the event such devices are not offered on loan. If you have a remote mic for your hearing aids, ask the docent to wear it around the neck to help you hear comments being said.
- People are inclined to forget that they've been alerted to your hearing loss. You can silently remind them of it by simply placing your hand behind your ear so you'll hear them better and they'll remember your disability.

Travel offers the reward of being able to experience everyday things as if for the first time where very little is familiar, and much is waiting to be explored. When memories are stored to be relived in later years, in addition to the sights seen, the sounds heard can be part of those memories with the help of a digital traveling companion called a smartphone. Bon Voyage! **HL**

***Disclaimer: HLAA and the author of this article do not endorse any specific product or app. This article isn't all inclusive of all the apps available to people with hearing loss.***

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