Hadley

Smartphones and Vision Loss: Tools You Should Know About

Presented by Ricky Enger

**Ricky Enger:** Welcome to Hadley Presents. I'm your host, Ricky Enger, inviting you to sit back, relax, and enjoy a conversation with the experts. In this episode, occupational therapist Jennifer Shimon, joins us as we discuss and demystify technology options for people with vision loss. Welcome to the show, Jennifer.

**Jennifer Shimon** Hi Ricky. Thank you for having me. I am so excited to be here talking with you today.

**Ricky Enger:** I am delighted to have you. You and I began talking because you were using Hadley's resources, Hadley's workshops, and such with your clients, so I already liked you for that. But then we started having just this really fascinating conversation about how do we introduce technology in a way that's not overwhelming. How do we talk about this to people who are already dealing with a lot, and how do we make it approachable? So I thought we should actually record this conversation and share it with the world. So here we are. Before we get into that conversation though, why don't you just tell us a bit about yourself and what you do?

**Jennifer Shimon** Yes. As you mentioned, my name is Jennifer Shimon, and I work for the Wisconsin Office for the Blind and Visually Impaired. I am an occupational therapist by background, but I was hired as a rehabilitation specialist for the blind around four and a half years ago. So Ricky, I feel the need to clarify something right from the beginning. I'm definitely not an assistive technology expert. I feel like I've come a long way with technology since I was first hired, but I am still learning it right along with my clients on a daily basis.

So when the idea was first presented about being on your podcast, my first thought was, I am not the right person, and by far not the best person to speak on this topic. And part of me is still wondering how in the world did I end up on a podcast with technology as the topic of all things? But after thinking about this for a while, I really found myself compelled to say yes to this discussion that we're having today. It's for the very reason that I'm not an expert. I feel like I do have something to say because I'm still relatively new to this technology that exists for people with vision loss. And there are times that I struggle with it right alongside my clients. I am constantly striving to find best practices in the way that I'm teaching our rapidly changing technology. And this is one of the biggest challenges that I face in my role. But I also get really excited about technology because I love having tangible, practical problem-solving solutions to present to my clients.

**Ricky Enger:** Yeah. And I think all of that is so important and I feel like it's very relatable. Someone comes in, they're not an expert in technology and you aren't either. There's probably some comfort to be found in that.

**Jennifer Shimon** Absolutely.

**Ricky Enger:** You and I probably have similar conversations with people. You get to do it face-to-face, and I tend to do it by phone, but we are talking with people who are going through this challenging period. They're trying to adjust to vision loss, and they know that technology's probably going to be of benefit, but they probably have some thoughts coming in about how they might use technology or what is possible, or even what's not possible. Sometimes those thoughts are right on the money and sometimes there might be some misconceptions about what is and isn't possible with technology. So what are some of these things that you encounter when people are thinking about technology that may or may not be true?

**Jennifer Shimon** Yes, that is very true, Ricky. I have encountered some misconceptions over the last several years. One example would be that some people believe that they cannot use a smartphone if they have a visual impairment, which is not true. I have also encountered some people that think that they need a phone that's specially designed for someone with vision loss. There are a few phones out there that fall into that category, but you do not have to get a phone that is designed for vision loss because smartphones have built-in technology that can enable you to use your phone. Another misconception that I run into has to do with using voice assistants, common examples being Siri on the iPhone and Google Assist on an Android phone. I have run into some people that believe that you can accomplish any and everything by voice and they become frustrated when they run into some of the limitations. On the flip side, I also find people that either don't use their voice assistant at all or they under-utilize it.

The last misconception that I frequently run into has to do with screen readers. And a screen reader on a smartphone enables people with significant visual impairments to fully engage with their phone. I frequently find that people that are just beginning to learn to use a screen reader believe that you need to choose between a voice assistant and the screen reader, that turning on a screen reader means that Siri or Google Assist will no longer work, which is not true. So I find myself reminding clients that you can use both and you will want to use both because ultimately you just want to accomplish a task in the easiest way possible.

**Ricky Enger:** Exactly, I think that is one of the biggest challenges, not even knowing what is available and when you might use it and when it might not be the best choice for you. So I think people just struggle with, there's so much out there, how do I even know where to start? So maybe it would help if we just go through a couple of these tools that exist and talk about what's really great about them and what might be some drawbacks to using them. So let's define what they are, and then talk about what's great and what's maybe not so great. We'll start with low vision tools. So when people are still using their phone with their remaining vision, what kinds of things are available for that?

**Jennifer Shimon**

As you mentioned Ricky, the first step that I take with my clients is to see if there are any changes that I can make on their smartphone that will make the screen easier to see. I go into the settings on their phone and try out some different options. This typically involves changing the font size, which makes the words bigger, turning on bold font, which makes words darker and changing the brightness level. Many times I find my clients have a picture or a busy background set as the wallpaper on their phone, which can make it more difficult to see the apps. So with permission, I'll replace the wallpaper with a color that simplifies the look and provides some contrast on the screen. Sometimes I also help my clients to clean up their screen and move apps into a folder if they aren't being actively used. That way it creates less visual clutter on the screen.

Smartphones also have built-in magnification options that can be turned on, which can further increase the text and the size of items on the phone. So all of those things that I just described are ways to visually change the screen. And that makes sense. We want to start with what you can see on the phone. If these visual enhancements work, that's a positive outcome in that it enables someone to continue to use their phone visually. The drawback for some people is that the bigger you make the words on the screen, the less words fit on the screen, and sometimes you need to scroll around to capture all of the words or to find things on the screen. And then for some of the people that I work with, these visual enhancements just don't work.

That leads me to the second tool. If you are still struggling with your phone visually, you could consider using a voice assistant to accomplish tasks. We mentioned Siri or Google Assist as examples. So here I think it's important to discuss what are the possibilities and what are the limitations of voice assistants. There are a lot of things you can do by voice. You can answer questions, keep a calendar, set alarms, make phone calls, launch or open apps and send and read text messages. Those are a few examples. So on the opposite side, what are some things that Siri and Google assist cannot do? One example would be deleting voicemail messages. Another example of a limitation is that you cannot add contacts to your phone by voice. Another problem I have seen some of my clients run into is during a phone call, if you call a business that has an automated menu where you're asked to press a number on the phone keypad, some businesses have their menu set up so that you can say a number, but some don't.

So this can prevent you from being able to connect to the right person or department. And lastly, in a more general sense, there are limitations to what Siri and Google Assist can do within apps. Many times you can open an app with the voice assistant, but then you can't complete a more complex task. So examples of that might be setting up transportation on apps such as Uber or Lyft, checking your account balances in a banking app, interacting with social media apps, things like picture taking and shopping in store apps or on websites. So we first talked about how to change the way the screen looks, and then we just talked about using the phone by voice.

A third option is a feature on the phone that will read the screen aloud. So there is the option to enable something called speak screen on the iPhone and select to speak on an Android phone. You can use this feature when you want to read something aloud on the phone such as an email, a web page or document. I view this feature as best suited for someone that can still see items on their phone, but want to hear more extensive text read aloud, maybe due to fatigue.

**Ricky Enger:** Yeah, it really does help with eye strain.

**Jennifer Shimon** Yes. But a potential barrier with this feature is that you still have to be able to get to the page that you want read aloud. And the read aloud feature will not help you get where you want to go. The other drawback is you can't interact with the phone. You can only listen to what's being read. So the fourth and final option is a screen reader. And a screen reader adds in the missing piece that we just talked about with the read aloud feature. A screen reader will not only read the screen aloud, but it will also enable you to interact with your phone, and therefore it grants you full access to your phone.

So the iPhone has a built-in screen reader called Voiceover, and an Android phone has a screen reader built in called TalkBack. Instead of locating apps or content on the screen visually, you use what are called gestures to move throughout the phone and tell the phone what you want to do. These gestures include swipes and taps on the surface of the phone, and these gestures allow you to perform more complex tasks. So that was a lot of options.

**Ricky Enger:** Yes, and the great thing is that Hadley actually has material on how to use all of these things. So whatever it is that you end up deciding is going to work best for you, then Hadley does have that material for figuring out. Okay, now how do I use it then?

**Jennifer Shimon** I want to emphasize that ultimately the goal is whatever of these methods is easiest and allows you to accomplish the task at hand.

**Ricky Enger:** I think one of the things that people will struggle with typically is nobody really enjoys change. People want to stick with what they've done before because it has worked for them, and sometimes they want to hang on to it even though it might not be working so well. With your clients, are there some telltale signs that you might look for, some common things that might indicate, okay, you've used your phone visually for a very long time, but this is just not efficient anymore? It might be time to start thinking about a screen reader.

**Jennifer Shimon** Yes, I absolutely agree. Changing how you do something is not easy. So I'm going to list a few reasons that you may want to consider learning to use a screen reader. If you can no longer visually complete tasks on your phone, if you feel like you're straining your vision while you're using your phone, if you find it's taking you a very long time to complete tasks, and if you find yourself requiring multiple devices to use your phone and you're still struggling. I have seen clients use their glasses and a handheld magnifier above the phone with the font as large as it can be, and then you need the just right lighting, and they are still having a really hard time. A few other reasons might be you're making mistakes with what you intended to do with your phone. If you become frustrated with the limitations of the voice assistant, I feel like that's a big one.

Right now, I have a client who has glaucoma and macular degeneration, and she is aware that her vision will continue to decline. So she's learning the screen reader because she wants to prepare and she wants to stay independent, and she is motivated and curious about screen reader technology. So she is a great candidate for learning a screen reader. When we work together, we have these animated discussions talking about the pros and cons of the screen reader, what's frustrating, what does and does not feel intuitive. And then we discuss when is Siri the better and easier option and when is a screen reader necessary? So through this engagement with her, I feel like she's helping me learn how to teach the screen reader as much as I'm helping her to learn it.

**Ricky Enger:** That's awesome.

**Jennifer Shimon** So for some people, I introduced the idea of a screen reader, but they decide they're content with Siri or what Google Assist can do. That might be someone that mostly made phone calls on their smartphone prior to their vision loss, and they don't feel like they're missing out with their phone's capabilities. And some people are just not interested in learning additional technology, and that is absolutely fine.

**Ricky Enger:** Yeah, exactly. That makes a lot of sense. So whether you have decided, okay, we are going to learn to use the screen reader, or maybe they are just thinking about dipping their toe into the water. There comes that first moment where you're just showing them, so this is what a screen reader is, we're going to turn it on for the first time, and you can see what it's like. What are those reactions usually like?

**Jennifer Shimon** Yes, there can be some strong reactions to a screen reader at first. So something that you will notice when you first turn on a screen reader is that it talks a lot. It not only reads the information on your screen, but it also gives you cues for what other actions you can take or what gestures you can use to interact with your phone. So when you hear all of this information strung together, it's a lot to take in and it can be really overwhelming to listen to at first, but it can also be really helpful for learning once you grow more accustomed to it. I'm actually going to roughly quote you Ricky on something that you said in an email to me as we were talking about this podcast. I think you said something to the effect that most people aren't accustomed to taking information in like this with their ears, and I think that is such an important point. It takes time to get used to listening for the information that you used to obtain through your eyes or through vision.

**Ricky Enger:** Yeah, exactly. That is one challenge that people face when they're getting used to a screen reader is how to parse all this information? How do I make sense of it when I used to be able to just glance over and get an idea of what was going on? So that's one challenge I know people face when they're getting accustomed to a screen reader. What are some other ones that you and your clients face as you're just in the beginning stages of learning to use a screen reader? And then hopefully maybe you've got some tips for, okay, here's the challenge, but here's how we go about solving it.

**Jennifer Shimon** Yes, tips are the important part.

**Ricky Enger:** Yeah.

**Jennifer Shimon** So one challenge I find is simply adjusting to the idea that using your phone with a screen reader is very different than how you used your phone with vision. When you look at your phone, you see an app on the screen that you want to open, and you touch, or you tap it. When you turn a screen reader on, it changes the way you interact with the screen. So when you land on an app with one finger, the screen reader reads that aloud instead of opening the app. If you can't see the screen, you wouldn't want to open something every time you touch the screen. So with the screen reader turned on, you have to double tap the screen with one finger when you have the intention of doing something or opening an app. So there are quite a few gestures like to learn for both Voiceover and TalkBack to navigate through the phone and to perform actions.

Another thing that takes getting used to that I've found with my clients is how the screen reader reads the information on the phone. I think I mentioned earlier that a screen reader reads the phone as if it were in a list format, and that in and of itself can sometimes be confusing. I'm going to give you an example that really stuck out to me when I was first learning. When you go into your voicemail app on an iPhone, if you're looking at your phone, the heading where it says voicemail is in large font and it's bigger than the rest of the words on the screen, and it's in bold type. Because it's large and bold, your eye is drawn to that heading, and it tends to be the first thing you see when you look at the screen. However, when Voiceover's turned on, and if it reads it from the screen from top to bottom, the first thing you hear is edit in the upper left-hand corner and greeting in the right corner. And finally, you hear voicemail because it's the third item in the list on the screen.

So it can take time to get used to this and to understand where you are in your phone because the screen reader does not necessarily give you the information that is most important first, like the heading, but it's reading it like a list. Another challenge lies in the labeling of items on the screen by the screen reader. Everything on the phone is labeled so that you can hear the buttons instead of seeing them. So this can be challenging at times because some of the labels may have names that you might not find to be really intuitive. An example of this, again, on the iPhone in voicemail is the speaker button. I find the speaker to be a really great feature when you're sorting through a lot of voicemail messages in one sitting. So when I first heard Voiceover read that speaker button, what I would think of it as a speaker button, Voiceover calls it playback destination button.

**Ricky Enger:** Yeah. And you're like, what is that?

**Jennifer Shimon** What is that? I had no idea what that meant. So I didn't recognize it at first, but over time, you're going to learn how the screen reader has named things, and there's learning in that. So another thing that people notice with a screen reader when it's turned on is sometimes it feels like it just starts talking out of nowhere. If the screen dims, Voiceover will tell you that. If you have your phone open and a notification comes in like a text message, Voiceover will tell you. So there's this very large increase of audio information that's presented. Thank goodness there's a gesture to silence or pause your screen reader with both Voiceover and TalkBack. It's a two-finger single tap. So I place that gesture as a very high priority to learn because sometimes you just need your screen reader to be quiet.

**Ricky Enger:** Yes.

**Jennifer Shimon** And so one last challenge I wanted to mention is accuracy with your gestures that you use on the screen. So when you execute a gesture, for instance, a one finger double tap, you need to perform it precisely and quickly, which is really hard to do if you're first learning and you don't really know the gestures very well. So another example would be swiping on the screen. If you land for too long on the screen during a swipe, Voiceover will think you're tapping the screen instead. So the swipes have to be a fluid motion, and the taps need to be quick. So these gestures take practice, and it's important to understand what happens if your gestures are a little off and how the phone may interpret it. So sometimes I'll instruct a client to just return to the home screen if they accidentally did a gesture that took them to some page they didn't intend to land on.

**Ricky Enger:** Yeah.

**Jennifer Shimon** Okay. So more importantly, the tips part. First of all, I come back again to that it's important to recognize that a screen reader is a different way to use the phone. It's not the same way you used it with vision. Secondly, I would recommend training your ears to hear things that you used to identify by sight. Ricky, in one of our conversations, you mentioned that audiobooks are a great way to begin to get used to taking in information through your ears. Another suggestion would be to listen to movies or shows with audio description turned on. You not only hear the dialogue of the show or the movie, but a description of what's going on visually on screen. Here, again, you're increasing the amount of information you're receiving through your ears. Third, I would highly recommend using the Hadley workshops. I use them with my clients all the time.

I often assist my clients in getting set up with the NLS program and with the Talking Books player so that we can order the screen reader tutorials on a cartridge from Hadley. We typically listen to one or two of the short tutorials, and then we frequently pause them to practice what's being taught. By having access to these workshops, my clients can then re-listen to them, and practice in between our appointments. So practicing is an essential part of learning the screen reader.

**Ricky Enger:** Yeah, that makes perfect sense. I think that's true for anything and certainly for something that you're finding overwhelming. Every time you practice, you just get that much further into, “Hey, I had success with this.” Once you have that one success, then it feels just a little bit less intimidating, I think. So I don't want to put words in your mouth, but that would probably be one of the top tips that you would give to someone who's thinking, “I want to use a phone, but I'm just feeling kind of intimidated.” Just be prepared for some practice. Are there any other final thoughts that you would give to somebody who's in this situation?

**Jennifer Shimon** Absolutely. I completely agree with practicing and with finding the successes. There's a lot of learning of gestures and things like that with the screen readers, but ultimately that has to be balanced with what does learning the screen reader do for me? What can it allow me to do that I can't do right now? So that is extremely important.

**Ricky Enger:** Yeah, finding the motivation.

**Jennifer Shimon** Yes, yes. Motivation. So many times I step back with my clients and then we say, okay, what do you really want to be able to do on your phone? And is this going to help you? That's the overarching message with everything. And I think it's really important to remember that you can use a combination of the tools that we talked about; altering the way the screen looks, using a voice assistant, using a read aloud feature, and using a screen reader. You are not necessarily choosing one as the best option over the others. It's more so picking the tool for the most efficient way to accomplish a task that's important to you.

So starting out in this field four and a half years ago, I did not consider myself to be a very techy person. When I think about my relationship with technology over time, a lot of words and feelings come to mind. There are definitely moments when technology has been intimidating and frustrating, but there have also been equally as many times that I have felt hope and excitement over technology. I've been diabetic since the age of 19, and that diagnosis falls in the top five conditions that can lead to vision loss. And there's this great irony with this diagnosis. How can you apply a drop of blood to a test strip if you can't see it? How can you read your blood sugar value on a machine if you can't see the screen?

**Ricky Enger:** Wow. Yeah.

**Jennifer Shimon** Right now, I have a sensor inserted in my body that communicates with my insulin pump and my smartphone so that I know my blood sugar value at any moment in time without having to obtain blood from a finger stick. So there are more and more solutions coming out all the time for people with vision loss, and technology has so much to offer if you're open to it.

**Ricky Enger:** Absolutely. I think that's really the key is that you may not love technology for its own sake and get excited about all the new gadgets and gizmos, but you can recognize that it opens so many doors. It gives you so many possibilities of things that you can do with technology as the vehicle for it. Jennifer, this has been such a great conversation. I've had a wonderful time. I hope you have too.

**Jennifer Shimon** Thanks, Ricky.

**Ricky Enger:** Got something to say? Share your thoughts about this episode of Hadley Presents or make suggestions for future episodes. We'd love to hear from you. Send us an email at podcast@hadleyhelps.org. That's P-O-D-C-A-S-T @hadleyhelps.org. Or leave us a message at 847-784-2870. Thanks for listening.