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A BENETECH INITIATIVE

News about Bookshare: an ebook library for people with reading barriers



Reframing the Text-to-Speech vs. Human Audio Debate: Both Make Reading Easier

PUBLISHED MAY 2, 2019 by Christine Jones, Associate Director, U.S. Education

The proliferation and improved quality of text-to-speech is helping people with reading barriers succeed in school and life

On any given day, my morning routine might include a “conversation” with my home digital assistant from which I learn the latest news, the weather forecast, or just how terrible the traffic is on my route to work. In my car, my GPS app tells me how to get

where I'm going, and I often listen to podcasts or audiobooks to make my commute more tolerable. On particularly busy or stressful mornings, I'm grateful that my Bible app can read aloud to me while I navigate the crowded freeways, providing needed inspiration. In some of these audio experiences, the voices talking to me are human ones; other times, they're digital voices so human sounding that I hardly notice the difference. For me, though, consuming content in audio is merely a convenience. For many others, it is as essential as air and water.

Digital Text-to-Speech Voices Are a Lifeline

Consider the person who is visually impaired and depends on audio interactions to provide directions, read emails, and complete everyday tasks. Or the person with dyslexia who can read with greater ease and comprehension with narrated books because he or she doesn't have to struggle to decode every word. For individuals with reading barriers, audio is a necessary mode of receiving and processing information. And although some of what they consume today will be human narrated, more and more information will be communicated through technology. Let's face it: digital text-to-speech (TTS) voices are here to stay, and they will only become more common. Thankfully, the quality has improved significantly and will continue to improve every year. Soon, the distinction between human and text-to-speech voices will be negligible.

[Bookshare and TTS are life changing for Emery, a sixth grader with dyslexia](#)

As I interact with educators around the country who support students with reading barriers, I sometimes hear concerns about students' willingness to adjust to TTS versus human-narrated audio. Some educators indicate that their students have already chosen one audio format or the other, or the educators themselves have made this choice for them. In light of the realities described above, this either/or approach to audio formats can limit learning opportunities. Preparing students for the future requires helping them become comfortable with TTS as well as human-narrated audio content. Fortunately, students have a growing number of excellent TTS voice options from which to choose, so they're sure to find at least one voice they can use for reading. And, research shows that reading with TTS benefits students now as well as in the future.

Text-to-Speech Offers Features that Improve Reading Proficiency

Many applications that facilitate TTS reading offer karaoke-style highlighted text (at the word, phrase, or sentence level) to accompany the narration. In addition, these tools often allow students to customize their experiences by selecting the font, font size, color scheme, voice, and speed that works best for them. Voice Dream Reader, for example, offers 186 voices in 30 languages. Many tools also facilitate bookmarking and highlighting of text, note taking, and connections with supplementary online resources. According to studies on TTS used by students with reading barriers, as cited by the National Assistive Technology in Education (NATE) Network, features such as these “enhance student engagement, interest, and motivation” (Reinking, 2005; Strangman & Dalton, 2005).

In another study with students with reading barriers, “students accessed twice as much text within the same amount of time” when consuming information with TTS versus reading text on paper. In addition, “the use of the TTS allowed students to demonstrate improved comprehension scores on factual and inferential (higher level thinking) comprehension questions.” Moreover, in this same study, “teachers reported improved academic performance, better on-task behavior, and more engagement when using TTS” (Hodapp & Rachow, 2010).

Another benefit and point of differentiation for consideration is that production of TTS-enabled books is far quicker, easier, and cheaper than that of human narrated content. That means more of the books students need will be readily available in a format that works well for them.

Bookshare plus Reading Apps Equals Versatility and Independence

As the producers of Bookshare, an ebook library of 700,000+ titles available in text-to-speech (combined with highlighted text, if desired), and readable on nearly any device, Benetech is doing its part to help students succeed now and in a digital future. We believe that no matter how you want to consume content – audio, karaoke-style, braille, large print, or printed on paper – that content should be accessible to you and available when you need it.

We encourage you to see [how text-to-speech reading can help your students](#).

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Jim Kauppila

In a perfect world everyone would speak with perfect consistent diction, We could make recordings of all the books of the world. Having them accessible for those that need such support.

In my world, the improvements in speech synthesis are quite impressive. The ability control the voice, pitch, and rate of speech are nothing short of amazing. We can get publisher files, scan and convert books with greater ease and speed than ever before.

I started listening to synthesized speech in 1983, Thirty five years later I can swear on a stack of bibles, text to speech is a viable means to gain content from the printed word for those who struggle. The largest group of Nay-sayers, don't struggle, they confuse instruction in Fluency with learning from content. I will not disregard the importance of Fluency in reading instruction. Students, adults who are using sites like Bookshare HAVE fluency problems, issues with understanding phonics etc.

These people are using Bookshare to LEARN.

Consistency in presentation is important for struggling readers. Speech Synthesis represents text with 100% consistency, Human speech will never achieve at that level.

The developers of such great technology are a gift from God, proof that humans are able to create things of beauty and utility.

MAY 7, 2019 | REPLY

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