

Abstract: Windows XP operating system comes with an accessibility tool called the Narrator that provides text-to-speech functionality for the operating system. It is easy to use but only works for a few programs and is useful for navigating through the Windows system. A more robust program would be required for anyone needing a text-to-speech tool.

The setting of text-to-speech on a Windows XP computer requires only a few setup steps. The accessibility program is called Narrator and there are shortcut keys available to use it as well as menu options. Once enabled, it will read menu commands and dialog box options, read events on the screen and can be enabled to also read letters as they are typed. It cannot read selected words and is very limited as to which programs it will work with. The official list of programs is: Microsoft's Notepad, WordPad, Control Panel programs, Internet Explorer, Windows Desktop and selected parts of Windows setup. The Microsoft instructions were easy to follow and explained in a chart with both screen/menu directions and keyboard directions. The websites were easy to navigate but without an adequate text-to-speech reader that could read web page text, I would not have been able to locate or read the information if I was vision impaired. (Microsoft)

You start the tool from Windows through the Accessories --> Accessibility menu or use a shortcut key of Windows Key + N. The Microsoft documentation states that this tool provides "minimal level of functionality" for users with special needs. "Most users with disabilities will need utility programs with more advanced functionality for daily use." The limited use of this tool becomes apparent as soon as you try to use Internet Explorer to view a web page. It reads the active URL, the page title and then proceeds to describe each toolbar that is open. It will not read any text on the page and only reads a link when you click on it. Most annoying, it announced read-only as "red-only" (sic). As a tool to assist you in browsing the Internet I don't see how it could be useful. As a webmaster, I am aware of the Bobby guidelines developed by CAST, and I was particularly interested in how a web page would be handled by a text-to-speech program. The chart of Accessibility Requirements for Web in Reaching Accessibility: Guidelines for Creating and Refining Digital Learning Materials (Table 1 page 3) outlines multiple accessibility challenges with proposed potential solutions. I have never had the opportunity to experience the web from the perspective of somebody attempting to utilize a text-to-speech reader and although I attempt to follow as many guidelines as I can, I still wonder how it works out from the user's perspective.

The program's functionality seems to be limited to navigating Windows as a computer operating system. It accurately described each window that I had open and read the tooltips as I moved the mouse over them. Once I tried to use any of the programs, the functionality of the program was so limited that it was frustrating to me.

The only way I could get the Narrator tool to read text was to use the WordPad program. When I opened a document in WordPad, Narrator started with the entire window description (program, toolbars, etc), then read all the text, and then finished

with the description of the bottom of the window (press F1 for Help).

The Narrator utility was useful to me as a teaser. It gave me an idea of what I would need if I could provide a text-to-speech reader to a student. It had a single male voice which sounded very mechanical and reminded me of HAL on 2001 Space Odyssey. I generally prefer to listen to female or higher pitched voices in other technologies so I think a choice would have been helpful. Then each student could choose what works best for their hearing and understanding of the spoken text.

As I read through the description of the state of Kentucky's efforts to implement text reader software into all of its schools I became very excited at the prospect of the possibilities. They used a program in 2005 called Read and Write Gold (RWG). It is a text reader that reads individual words, sentences and paragraphs to the student. They encouraged the use of headphones so students could have the program read any content they choose, however many times they wanted. The authors felt this strategy avoided stigmas associated with students needing to rely on a teacher repeatedly because of their disabilities. I found the use of headphones helpful to clearly hear the voice enunciations, reduce distractions and provide appropriate volume. There were some words that I could not understand at all and I don't know if it was because of mispronunciation or because it was an unfamiliar word to me. In this instance, the text on the screen showed initials and the narrator spoke a proper name. The importance of having them match was clear to me immediately. Learning to wear the headphones while I worked was a separate skill that I think you would get used to but I kept taking them off and then having to put them back on to hear the Narrator. (Abell, 2005)

Abell (2005) supported students having the ability to control the program with a variety of customization features such as voice styles and the control of pitch, speed and the tone of the voice used for narration. Kentucky's Universal Design for Learning project supported having this software available across an entire school rather than only on certain computers so that no matter where the student was working, they would have the technology available to them.

The area of instruction that I found most interesting in Kentucky's project rollout was the use of the narration tool to play back what the student had just written. Abell believed this tool "allows (the student) to make critical decisions and efficiently make changes to improve the quality of their compositions. This is especially important in the writing process." The Windows narration tool would read back writing if written in WordPad but not selectively. If you wrote the composition, saved it, then opened it back up, it would read it out loud once. At any time you could use a keystroke combination (CTRL + SHIFT + SPACEBAR) to have it read the text but it always started at the beginning, including the application and toolbar descriptions. I don't think that would be useful for students to work on their writing. (Abell, 2005)

The Project ACCESS Toolkit chose text-to-speech word processors as one of the standard core assistive technology software tools they would provide to support access to students with mild disabilities. They did outline Narrator as support for computer operations but suggested several other software packages for word processing text to speech. Teacher training was highlighted as a necessity throughout the description of the project rollout. (Puckett, 2007)

The Kentucky project highlighted the use of technology as state assessment accommodations. The state required an IEP or PSP, a documented disability which justified the use of the technology and routine use of the technology as a regular part of classroom instruction. I believe that all technologies should be available to all students regardless of the severity or identification of disabilities – if the student feels it helps them learn and demonstrate their level of learning, it should be allowed. (Abell, 2005)

References

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