

Newton, M. (2013). Technology spotlight: Accessibility features of iOS7. Newsletter of the Division for Physical and Health Disabilities (Fall ed., Vol. 31(3) pp. 7-10). Arlington, VA: Division for Physical and Health Disabilities of the Council for Exceptional Children.



Assistive Technology Spotlight Fall 2013: Accessibility features of iOS7

Greetings from the AT spotlight! I hope you are off to a great start to the new school year and are finding ways every day to enhance the educational experiences of your students through the use of assistive technology. Over the past few months I have been considering a wide variety of topics to highlight with this quarter's column; however these topics were quickly moved to the back burner with the release of Apple's new iOS7 operating system this past week. This new operating system for Apple's idevices contains many of the same accessibility features contained in previous versions (assistive touch, voice over, visual support), but now also has added build-in switch accessibility. Some of you may remember a previous AT Spotlight column from me a year ago focusing on the complexities and limitations of switch accessibility for iPads using Bluetooth switches to access a small number of premade switch accessible apps. With the release of the new iOS7, iPads, iPods, and iPhones and their applications will now be almost universally accessible for individuals with cognitive and motor disabilities.

To activate the new switch accessibility features of your i-device, it is first necessary to make sure that you have downloaded and installed iOS7 on your device. Go to Settings>General>Software Update to make sure that you are running the most current operating system. Once you are running iOS7, once again go to settings and choose accessibility. From this screen, scroll down and turn switch control "on". The new iOS7 allows for three different types of switch control (sources) of the i-device. The first type of switch sources the can be used is an "external" switch, a device that will couple with the iPad using Bluetooth like Ablenet's (www.ablenet.com) new Blue2:



Ablenet's new Blue2 Bluetooth enabled switch for iPads running iOS7. Available October 2013. After pairing this device with the i-device, it can be calibrated to work as a single switch (the iPad auto-scans available choices using a cursor at a determined rate of speed and the switch selects) or as a double switch that allows both scanning and selection. Features also allow you to determine hold duration before a selection is made and limiting repeat taps if you have a student with motor challenges that may need these supports. The second switch source that iOS7 integrates is the screen itself. This option will allow for the cursor to auto scan the choices on the screen until the screen is touched (anywhere on the entire screen, not just the particular app or option) to select that option or to cause another action like returning to the home screen. While this might not sound like the most supportive or innovative type of switch access, it can be if you integrate the gesture control option. This feature allows you to create certain touch-screen gestures that will cause pre-programmed reactions by your i-device. Have a student with motor challenges that has trouble pointing to and/or touching a favorite option on the classroom iPad, but can swipe the screen with a hand from left to right? Create a new touch-screen gesture for them that will allow that gesture/touch of the screen to open the app or feature that they want. The third a final switch source that is included in the new iOS7 is the most remarkable in my opinion – the camera. The camera on i-devices can now be set up to recognize head movement to the left and to the right to scan items, tap an app (including an AAC app), hit the home button, activate Siri, and more. The sensitivity of the head gestures in the feature can be adjusted as well, so only deliberate head movements, or those individualized for the user will cue the i-device. The camera as a switch feature will open up the accessibility of iPads to an even larger number of students with physical disabilities, including those with forms of paralysis. Assistive technology of this type generally costs many hundreds, if not thousands of dollars.

That it can now be found in something as ubiquitous and “socially acceptable” as i-devices is really quite astounding. Teachers of students with physical and health disabilities that can harness these sorts of tools can change the lives of their students. Within the limitations of this column (and your reading attention span!), I really only have time to give you an overview of the new switch accessibility features included in iOS7. There are many more details you can discover for yourself by playing with the switch access, as well as the other accessibility features, on your own i-devices. Many good overview videos are available online as well; I

particularly like the [playlist available here](#). I would love to hear about your discoveries and the ways that you are integrating not only switch accessible iPads, but other types of AT into your classroom as well. Email me at matthewn@vt.edu with your AT questions, comments, successes, and failures. Have a great year!

Matt Newton