TECHNOLOGY

by Jane Farrall & Alex Dunn

"A" Is for Access!

Switch Accessibility and the iPad

Pick up the new iPad and suddenly, it's clear. You're actually touching your photos, reading a book, playing the piano. Nothing comes between you and what you love…. (Apple.com)

Is this really true that nothing comes between people and their iPads? Some adults and children alike have been relegated to the outside of the iPad revolution looking in because they can't "touch their photos or read a book".   Some people rely on alternative means of accessing their world such as switch access. Do barriers to participation lie solely with the individual with special skills?   CAST believes that "*barriers to learning are not, in fact, inherent in the capacities of learners, but instead arise in learners' interactions with inflexible educational goals, materials, methods, and assessments.*" *Teaching Every Student in the Digital Age, p.vi.*

At our school district, consulting firms such as Inclusioneers and Jane Farrall Consulting have made every effort to promote a universal design for learning toolkit where classrooms, workplaces and homes support multiple means of engagement, expression and representation so all people, including those who rely on switch access, can look through their photos, read a book and play the piano as Apple suggests.

What is switch access?
Firstly, switch access refers to an external switch which someone who may not have the requisite motor control to access directly, can press to make a selection in an App running on an iPad or iPhone (or an App which allows the person to use the iPad screen as a switch). Switches come in all different shapes and sizes and really offer individuals an alternate way of accessing Apps on the iPhone or iPad. To read more about switches and switch access click here.

Switch access to an iPad is currently limited to specific Apps. Each App developer must include the code that offers switch access as they develop the App. At present, it is not possible to use a switch to leave an App or to move between Apps – switch access is in-App only. Recently, we have seen the development of the iPortal, which enables joystick control of the whole iPad using VoiceOver. In addition, the new AssistiveTouch feature in iOS5 looks like it could enable overall alternative access to the iPad at some stage. It is important to note that developers are currently working on switch interfaces which could potentially offer greater switch access to the iPad including scanning to select and launch an App from a home screen.   Komodo Open Lab will be launching the 'Tecla Shield' App and interface soon. Please click here for a preliminary video. The Tornado switch interface from Origin Instruments is also in development and here is a demonstration video from a recent conference exhibit.

What switches provide alternative access to the iPad?

Currently, in order for switch users to access the iPad, a switch accessible App is required in addition to an iPad switch interface. Currently, there are three Bluetooth switch interfaces available, and one interface, which plugs into the 30-pin dock connector port on the iPad. Any of the switch interfaces, which connect via Bluetooth, will reduce the iPad's battery life and also may 'lose' the Bluetooth connection intermittently. Some people find this problematic, but others don't. The interface which connects via the iPad port has the limitation that you are unable to connect anything else to the port while it is connected – which means activities such as charging the iPad or connecting the iPad to a VGA monitor while I am using the switch, are restricted.

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RJ Cooper has two different iPad switch interfaces available.

The Bluetooth Super Switch connects to the iPad via Bluetooth as the name implies. The interface itself functions as a switch and there is also a switch port to connect a second switch. The interface is rechargeable from any USB port.

Photo taken from rjcooper.com

The Air-Turn BT-105 is a small interface with two switch ports – allowing the user to connect one or two switches. This also connects via Bluetooth and is marketed as the Bluetooth Switch Interface by RJ Cooper and as the SwitchBox by Therapy Box. This interface is also rechargeable from any USB port.

The Blue2 from AbleNet is the third Bluetooth option. This interface has two built-in switches (in the form of the two pedals on the front) and also has two switch ports, which can replace the two pedals. This interface requires 2AA batteries to run – which works better for some people than recharging – and the batteries have a long run time.

Photo taken from ablenetinc.com

Five Sharks Swimming

Photo taken from http://www.inclusivetlc.com

The it-iClick is the fourth switch interface for the iPad – and is the newest option. This interface plugs into the 30-pin dock connector port on the iPad, as you can see from the picture above. Part of the Simply Works range from Inclusive, it is designed to work with up to 6 Simply Works transmitters, such as the it-Switch. This interface takes power from the iPad so it doesn't require recharging or batteries – although the wireless switches that work with it do.

The last word…..
As a community, it is important to encourage more developers to consider ALL people, including switch users, when developing Apps. We can also cheer for companies like Komodo Open Lab and Origins Instruments who are daring to develop tools to promote true universal access. In so doing, and with a few word changes we can make the apple.com dream a reality…….

Access the new iPad and suddenly, it's clear. You're actually interacting with your photos, reading a book, playing the piano. Nothing comes between you and what you love….

For more information please do not hesitate to contact Alex Dunn (Speech Language Pathologist at Upper Canada District School Board and President of Inclusioneers) (alexdunn@smartinclusion.ca, @Smart Inclusion on Twitter or smartinclusion.wikispaces.com) or Jane Farrall (Jane Farrell Consulting) jane@janefarrall.com, @JaneFarrall on Twitter or janefarrall.com). We would like to keep updated – so if you find any Apps missing, discover new access methods or have any comments please let us know!

Which Apps permit switch access?
A comprehensive Switch Accessible Apps resource has been compiled by Alex Dunn and Jane Farrall. The resource lists all the apps that we are currently aware of that have switch access. details the type of switch access (e.g. cause and effect, 1 switch scanning, 2 switch scanning, visual scanning, auditory scanning) and also lists which switch interface(s) the App is compatible with.