

The Case for Android -

Why an Android tablet may be a better choice for some people with disabilities

We owe Apple a lot. The iPad, introduced in 2010, has transformed the computer industry. These light, easy to use devices with long battery life and loads of creative apps have been warmly endorsed by consumers everywhere. And nowhere has this impact been greater than in the assistive technology field. In areas such as speech, cognitive support, early learning and environmental control, the iPad has made its mark. There is no doubt that the iPad is king in the assistive technology field.

It has taken Android a few years to catch up. It is now my view however that an Android device may be a better option for many people with a disability. I know that view will challenge the current wisdom in this field. But let me take you through step by step the facts that lead me to this conclusion.

Access

Apple's iOS7 includes some great switch access possibilities; it is clear that the iPad has a clear advantage overall in this regard. VoiceOver is great for people with vision impairment, although TalkBack on Android 4.4 offers some similar features. But for all other access options, the Android is clearly ahead. The reason is that you can plug in a standard USB pointing device and use that to control a cursor on the Android screen. You cannot do that on an iPad. This means on an Android tablet you can use a trackball, a joystick, a mouth controlled devices such as the QuadJoy or IntegraMouse, and even now an optical device such as the Tracker Pro (through MouseTrack). There are a couple of joystick options for the iPad, but they work in a cumbersome way, piggy-backing on VoiceOver or Apple's Switch Access facility. There is no cursor for complete and flexible control.

Lack of a Back Key

For those with cognitive impairment, there is an annoying feature of the iPad that can easily lead to confusion. It is the lack of a Back key. For example, if you are reading an email and that directs you to a web site, and then you wish to return to the email, on an Android you press the Back key. There is no back key on the iPad. So if you the press the back arrow, it takes you to the previous page on your browser (which may be something you looked at last week). You only get back to your email via the Home button. This is not intuitive, especially for people with cognitive impairment.



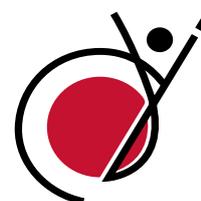
IN THIS ISSUE

- **WiFi Mapper**
- **MightyText**
- **n-Abler Joystick**
- **Is it Down?**
- **Cisco Voice Gateway**
- **Ability Activities**
- **Ability Regional Bases**

- **and LOTS MORE!**

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Ability Technology

The Case for Android continued

More Size Options

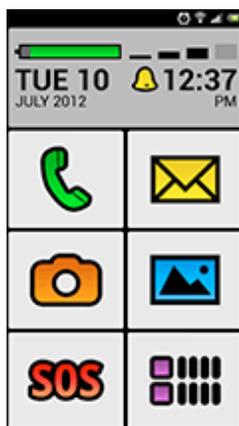
Android devices come in a variety of shapes and sizes. The iPad comes in two sizes only. This means greater choice for consumers with Android.

Telephone Options

Several Android devices (such as the Asus FonePad and the Samsung Galaxy Tab), among others, can be used as a mobile phone by inserting a SIM card. That is not possible on an iPad. The possibility arises for a person with a disability use their Android tablet as a device that does everything (as we shall see in a moment). The lack of a phone feature robs the iPad of this possibility.

Simplified Desktop Options

An app like Big Launcher on the Android gives users a simplified, large button access option for their Android tablet. There is no equivalent for the iPad, leaving users to the small, standard icons.



Big Launcher

Many Apps Available on Both

There is no doubt that the iPad has the widest range of apps in the assistive technology field, but it is also true that the gap has narrowed dramatically over the last 12 months.

For speech, there are heavyweight options now available for Android (such as Predictable, Sono Flex and Avaz) and many other options too (such as QuickTalk AAC, YouTalk AAC, Taptotalk and Talk Tablet). Proloquo2Go and SoundingBoard are iPad only. The iPad still has the lead in the is area, but there are plenty of options for Android and they are growing. Interestingly the Dynavox T10 is based on an Android platform.

For environmental control, one of the most

powerful options for users is the HouseMate Pro, running on an Android phone or tablet. This has been the most widely accepted ECU option among our clients. It also supports switch access. There are also options for the iPad, including the L5 and Switchamajig IR.



HouseMate Pro

For cognitive support, there are rich pickings for both iOS and Android. Pictello, for example is available on both platforms. So is First Then Visual Schedule, iPrompts and My Weekly Budget. There are plenty of mind-mapping apps on both platforms. One of the best apps however is CanPlan, and that is only for iOS. The iPad is still ahead here, but the gap is narrowing.

There are of course limitations regarding Android devices that should be noted. For example, there are hints of vulnerability to viruses. More important, is the fact that operating system upgrades are not automatic – they are at the discretion of the manufacturers of the Android devices. For example, I have a Sony tablet, an Acer tablet and an HTC phone; none of these devices is offering an upgrade to Android 4.4, which is the latest Android operating system. This is a serious weakness with Android and may drive users to Google's own devices, which should hopefully support the latest operating system upgrades.

Conclusion

This analysis suggests that Android tablets must now be considered as equally relevant as assistive technology options for people with disabilities as the iPad. The iPad will still be the most appropriate option for some; for others, an Android device will be the better solution.

WiFi Mapper

Telstra Wi-Fi Maximiser is an Android and iOS compatible app that helps you to learn more about the Wi-Fi signal in your home or office and how it can be improved. It can be used to survey your local Wi-Fi network for Wi-Fi related blackspot and 'dead zones'.

If using iOS, the Telstra Wi-Fi Maximiser App needs to use a different method of detecting Wi-Fi signal. For the 'Quick Wi-Fi Test' screen, it will use network latency and packet loss to detect the quality of the network (instead of signal strength/RSSI values).

You'll need to enable 'Quick Wi-Fi Test Statistics' in the Settings app -> Wi-Fi Assistant before they can view these statistics.

You can use either the Quick Test, as above, to get a quick Wi-Fi coverage reading in any room, or you can create a Wi-Fi heatmap to help identify high and low signal areas in a couple of minutes.

Please note: The App is compatible with Android version 1.6 and above, and iOS versions 6 and above and can be downloaded from either Play Store for Android or App store for Apple devices.

(Information courtesy of Telstra)



MightyText

Mightytext enables you to send & receive SMS and MMS from your computer or tablet, using your current Android phone number. Messages stay in sync with your phone's SMS inbox. It involves installing an app from the Google Play Store and then a web app for your computer. It is free, although a Pro version is also available at a cost.



Wireless Camera Options via Smartphone

Here are some options for taking pictures remotely through or with your smartphones.

First, a Bluetooth Wireless Shutter Button, that works with iPhone, iPad and Android devices. Take photos from up to 30 feet away! Seen at <http://au.cellphoneshop.net>



A Wi-Fi enabled 1080p action camera that will sync with your Smartphone so you can use your phone to stop/start recording, review footage or images without unmounting your camera from your wheelchair. You can control the various functions i.e. Record, Snap-Shot, Stop, Image Quality, etc and view live images from the mobile device via Wi-Fi. Video and Still shots are only recorded to the camera, which can be downloaded/transferred to the mobile device once recording is complete. Available from Jaycar (CAT. NO. QC8021)



Here is the Googoo Wireless Camera, which connects to your iPhone or Android without wifi. It has a built-in microphone and rechargeable battery that reportedly lasts for over 700 hours. Available at <http://www.clubretail.com.au>



Cisco Voice Gateway - Use Any Computer/Smartphone to Make Landline Calls

Here is a way to use whatever computerised device you are comfortable with - Windows, Mac, iPhone or Android - to make landline calls at landline rates. It is done through a Cisco voice gateway (Cisco SPA 3102 \$89.10 ex gst). A normal analogue phone can also be plugged in to the gateway for others (such as carers) to use. All you need is a softphone (on-screen phone software) such as X-Lite.

One clear advantage of this system is that the call doesn't pass over the internet. Thus there is no VoIP required with your ISP and no internet connection, as phone calls go directly from the user's device out through the user's normal landline connection. Calls are at landline, not mobile rates.



Is it down?

We've all had the experience - trying to log on to a web site and you can't get through. Is the web site down or is there something wrong with my internet connection? There are web sites that let you check whether the web site you are seeking is down or not. One of these is - isitdownrightnow.com, or itdrn.com. It also gives you some very good troubleshooting tips if the website is up but you still can't get on. Such as forcing a full refresh for the site (by pressing CTRL + F5 keys at the same time) or clearing the temporary cache and cookies on your browser to make sure that you have the most recent version of the web page.

n-Abler Joystick

The n-ABLER Joystick emulates a computer mouse but, with fingertip control and the need for only minimal hand movement, reduces wrist and elbow fatigue, requires far less effort and is less tiring. The symmetrical design enables users to work with either hand without having to angle the wrist, and the unit can also be configured for 'left-handed' operation. Its large, integrated hand support/palm rest makes work posture more relaxed and less strained. It is 'plug and play' installation (no additional drivers required).

Features include

- * Rugged construction and ergonomic design.
- * Colour coded buttons mounted sub-flush to prevent accidental activation.
- * Double click and latching drag lock buttons
- * X-Y axis and Scroll button for up/down or left/right only cursor movements and scrolling facility.
- * Audible (switchable to mute) and visual warnings indicating selection or change of function.
- * Cursor Speed Control
- * Left and Right side programmable switch jacks for alternative switch input to any of the controls



Available for \$650 from <http://www.communicateat.com.au>.

ABILITY News

■ CASE MANAGEMENT DATABASE

Our new case management software is about to be implemented. Using FileMaker Pro database software, it will allow greater access to information on client services, project activities and other services. Data will be able to be entered on the road.

■ ARATA 2014 in Canberra

Ability had a strong presence at the recent ARATA Conference in Canberra, with Gemma McDonald and Bronwyn Simpson's workshop on mobile phone access winning the ARATA Soft Technology Award for "developments, improvements and innovations in service delivery to AT users". It created a buzz of excitement throughout the conference. Another presentation, by Dr Graeme Smith, on videoconferencing as a means for providing AT services in rural areas, was also well received.

It was great to catch up with so many from the AT field!

■ ABILITY HOUSE

We continue to receive great feedback regarding our abilityhouse.org.au web site. We have plans to extend this innovative and intuitive way of providing information to other forms of assistive technology.

■ RECENT ACTIVITIES

Recent trips have included Orange, Canberra, Perth,

Newcastle, Batemans Bay and Bomaderry. We participated in the ARATA Conference in Canberra.

■ FORTHCOMING ACTIVITIES

Our next "iPads and More" workshop will be held in Armidale, on 16 September. Another Perth trip is being planned for October.



Ability had a stand at the conference, shared with our colleagues from Hartley Lifecare.

ABILITY Regional Locations

While Ability is based in Sydney, our clients are located throughout NSW and ACT, and in some cases, beyond. As part of our commitment to people in rural and regional areas, we have a regular presence in the following locations:

NEWCASTLE (65 The Avenue, Wickham 2293, in association with Paraquad)

CANBERRA (6 Hodgson Place, Pearce 2607, in association with Hartley Lifecare)

WHAT THIS MEANS is that you can book services (such as assessments, training and technical support) in these locations in advance. You can plan ahead and know that Ability will be visiting your region on a regular basis. And we can supplement these face-to-face services by teleconnection.

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