

Tablet computers - A revolution in assistive technology

Tablets began as an adjunct to computers; now, for many people, they have replaced computers. Nowhere is this trend more obvious than in the disability field. How has this happened?

Tablet computers (such as the iPad) are generally very compelling. They are light, easy to use and have a long battery life. They start up instantly. If you need email, some web browsing, contacts, calendar, photos... then tablets do these tasks as well as a computer.

Apps written for tablets reflect the spirit of these devices. They are often bright, intuitive and very direct - by comparison, many computer applications are bloated, slow and cumbersome to use.

In assistive technology, the rise of tablets has been remarkable. The iPad established itself as a speech (AAC) tool once apps like Proloquo2Go were developed. Now there are many AAC apps for the iPad, as well as some for Android devices.

Another area where tablets have been prominent in AT is in the area of cognitive support. Apps are available for prompts, sequencing, scheduling, reminders and related areas. Early skill development is another area of growth, as well as environmental control.

Tablets have limitations. Access is one, especially for the iPad. Access options are growing, but control by voice or eye gaze, for example, have been slow to emerge. Mouse-type options are very limited on the iPad in particular.

Even though tablets do not appear to be well-suited to activities such as word processing, many of the old favourites from the computer (such as Co:Writer, Read & Write) have been reborn on the iPad.

Many people in AT still think of tablets as just iPads. But this is to overlook the growing offerings from Android devices, which have greater access options than iPads and a growing range of relevant apps. And we musn't forget dear old Windows, being reborn in a range of tablets. With a Windows tablet you inherit the large base of access options and software.

Interesting times ahead! We can expect big things in the disability field, with developer attention now being channelled clearly in the direction of tablet computers.



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Ability Technology

Virtualisation - a new pathway for assistive technology

We have been amazed at the positive response we have received about Ability House (www.abilityhouse.org.au). It provides an intuitive starting point for people with disabilities, their family and carers, as well as therapists, to explore assistive technology options. This is fully in the spirit of the NDIS and consumer choice. We are now in the planning stages for applying this same virtualisation approach for other types of assistive technology.



ABILITY Services - Research and Projects

One of the ways Ability contributes to the disability sector is through our research and special projects. We have undertaken these virtually continuously for 15 years, on topics such as speech recognition, employment of people with disabilities, environmental control technology, technology for people with brain injury, technology for people with Friedreich's Ataxia, a study of memory aids, and services for people in regional and rural areas. We developed videos of people who were extensive users of AT, and these have been used to inspire other people with disabilities throughout the country. Current projects include a substantial study of videoconferencing as a tool for providing AT services in country areas.

The development of **abilityhouse.org.au** was funded through the Practical Design Fund, as a prelude to the launch of the NDIS.

Our research and project work has been undertaken for Government departments, Government bodies such as the MAA, the Royal Rehabilitation Centre, charitable trusts, private companies, consumer groups and individuals. We see them as a way of reflecting on our client activity and contributing to the AT and disability sectors.

Good Buy?

One of the biggest trends in retail has been the shift to purchasing on-line and globally. Assistive technology has not been immune to this trend.

Some software, for example, can be downloaded direct from the manufacturer's web site, with big savings. An increasing trend however is for software to be made available through "subscription", which means an annual fee, wherever you are.

For equipment, we face the often prohibitive cost of shipping when looking at overseas purchases. For smaller items, buying overseas can still make sense and can result in savings.

But before we jump to criticise local suppliers, it might be worth reading the recent report of the Queensland Competition Authority on Price Disparities for Disability Aids and Equipment. They found that price differences did occur, but could be largely explained by factors such as our small market, pre-sales activity (such as trials) and local "red tape". They did not find any significant market power problems in the pricing of aids and equipment. The report did not deal with the type of equipment we focus on at Ability, but many of the findings would still be relevant.

ABILITY'S FACEBOOK PAGE

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ARATA 2014 - CANBERRA "ACTIVELY CHOOSING TECHNOLOGY"

The next National Conference of the Australian Rehabilitation and Assistive Technology Association (ARATA) will be held at the National Convention Centre, Canberra, from 20-22 August, 2014. More details are available at www.arata.org.au

Reflector for iPad/iPhone

Reflector is an AirPlay receiver that allows you to wirelessly display your iPad or iPhone on your computer (either Mac or Windows). This enables you to play games, watch movies, demonstrate apps or give presentations on the big screen (or projector or whiteboard) from your iPhone or iPad. With Reflector, everything you do on your mobile device is wirelessly streamed to your computer in real time. It does this by turning your computer into an AirPlay receiver for wireless mirroring and streaming (like the Apple TV). AirPlay is built in to the iPad, iPod or iPhone to display content. Most newer Apple devices support mirroring and work with Reflector. You can also record your iPhone, iPod or iPad, including device frames, audio and full video in recordings for later review or webcasts. Note that you cannot control the iOS device from your computer (as you can with J5Create for Android devices) but nevertheless this is a very useful facility. The cost is US \$12.99 from <http://www.airsquirrels.com/reflector>.



Android Mirror by J5Create

Speaking of mirroring, Android Mirror from J5Create is wonderful. It allows you to display your Android phone on your computer. Not only can you display your Android phone on your computer, but you can magnify and rotate your phone's screen and copy and paste text between your phone and your PC. You can even use your keyboard and mouse to type directly on your phone or to click on any programs. You can transfer data through the file manager and receive incoming calls and text message notifications directly on your PC. We are

currently testing simple Android infrared controllers, which could give inexpensive ECU options.

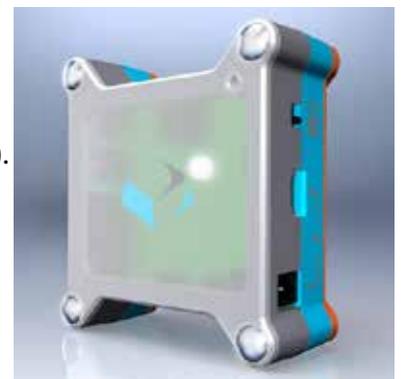
You can purchase this locally at MWave for under \$50.

Tecla Shield DOS

This is the latest product from Komodo. It enables switch control of Android and iOS devices (as well as Windows, Mac and Linux computers). You can navigate and interact with the built-in apps on iOS or Android devices to take photographs, listen to music, browse the internet, make phone calls and watch videos. With the Tecla Shield DOS you will also be able to access the on-screen keyboard to compose e-mails and messages, or enter text whenever you need to. On iOS, Tecla Shield DOS takes advantage of VoiceOver or Switch Control, Apple's in-built access technology, to enable control of the iPhone, iPad & iPod Touch. On Android, DOS works in combination with the Tecla App for Android (available for free from the Google Play store).

Single switch access to Siri is supported, as well as switch access to the voice dictation key in the iOS or Android built-in keyboards, enabling you to use your voice to enter text into any text box.

More details from <http://shop.komodoopenlab.com>. Cost is \$349 CAD plus shipping.



Logitech Harmony Smart Control

Products that use smartphones or tablets to provide control of appliances at home seem to come and go. We liked the Redeye, but it has gone. The Griffin Beacon tested well but has been discontinued. So we have the Logitech Harmony Smart Control. Logitech have been in the business of making remotes for a long time, so hopefully this product will be durable.

It works by wifi, enabling an iOS or Android device to operate through the IR Mini Blaster Unit, to control infrared devices.



Some home automation devices are included in the large database. Setup is undertaken on a computer (Mac or Windows). A maximum of 8 devices can be controlled, which some may find limiting. IR signals can be bounced off walls and furniture, but can be supplemented with two IR ports on the back for hard wired connections. The Hub is also capable of sending commands via Bluetooth for the PlayStation 3 and the Wii. Cost is around A\$150.



Motorola Moto X: "always listening" phone

With nearly all mobile phones, you need to touch a button or a switch to activate voice dialling. This Motorola phone is always listening for the passphrase, "OK, Google Now", after which you can answer calls, makes calls and give Siri-type instructions by voice. Won't this drain battery power? Motorola designed a dedicated processor called the X8 that includes a low-power core, just to listen for the passphrase. This ensures it doesn't drain your main battery. It incorporates some other battery-saving features as well.

The Motorola Moto X has just become available in Australia, at a price of around \$600.



Beamz - Inclusive music creation tool

The generic Beamz is available in Australia for around \$300. Hand movements interrupt the laser beams to create music through a connected computer (see <http://www.youtube.com/watch?v=6HUcQOIkyiA>). However Inclusive Technology in the UK have developed the product further and tailored it to the special needs market, to address areas like cause and effect, directionality, sequencing, fine and gross motor skills, common core subjects and more. It is called Beamz Interactive (see <http://www.youtube.com/watch?v=tkP7C2M2yq0>).

The adapted version features additional access methods, including attaching a switch interface and switch, using an iOS smart device or an interactive whiteboard. It sells for £250 (delivery to Australia is £50).

The Beamz Interactive is certainly cheaper than other music creation devices such as the Invisible Keyboard (\$1,360) and Soundbeam (over \$6,000) but more limited in positioning options. These other devices can be positioned to adapt to any movements of a person's body, whereas the user has to adapt to the Beamz.



ABILITY News

■ CASE MANAGEMENT DATABASE

Our new case management software is nearing completion. Using FileMaker Pro database software, it will allow greater access to information on client services, project activities and other services.

■ WELCOME JEREMY!

We welcome Jeremy Smith

The NDIS... in 1996?

During a recent clean-up at the office we came across a short submission that the Executive Director, Dr Graeme Smith, wrote to a review of the Commonwealth-State Disability Agreement. Some extracts from the submission in 1996:

"To extend funding into new areas simply extends the problem. It will result in more minimalist services which fail to address the needs of consumers. Funding will

to our team. Jeremy, who is undertaking a policy studies degree at the University of Sydney, is providing administrative and technical support services to other Ability staff. He has already made a significant contribution.

■ RECENT ACTIVITIES

Recent trips have included Coffs Harbour, Orange and Dapto.

continue to roll down the well-worn channels, propping up the inefficiency and incompetence for which this sector is, unfortunately, renown. Funding serves to insulate the recipients from healthy competition.

The answer to this problem is not to have detailed standards and an army of bureaucrats to enforce them...

A better way of achieving quality control, consumer-focused services and lower costs, as well

■ FORTHCOMING ACTIVITIES

In April we visit Newcastle, while in May we visit Benalla, Geelong, Ballarat and Albury, as well as Canberra. Bronwyn is conducting a workshop at the OT NSW Conference on 28 March. Graeme is taking bookings for medico-legal assessments during a Perth trip in early May.

as innovation, is to encourage competition. Consumers will go to those services which treat them well and produce positive outcomes; other providers will seek to emulate the successful ones.

The funding entitlement should rest with the individual and not with the service provider. This entitlement should be portable between providers. And the number and range of providers should be expanded".

- 18 April 1996

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)

Other locations are planned.

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.

Ability Technology

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