From the editor’s desk

Welcome back to TechnoTalk!
In this issue we’ve focused on some of the new technology hitting the high street and how it can be used to meet the needs of our clients with some mainstream and some specialist adaptations. Android devices are fast catching up to Apple in terms of popularity and they offer a different range of features, so our Technology team have reviewed some of the most relevant points to consider when deciding whether an Android device will meet your needs.

We also have a guest spot from TechnoTalk’s longsuffering desktop publisher, Judith Geppert. Judith recently showed us the fantastic and colourful tablet mount that she sourced for herself and we asked her to tell us a little bit more about it here.

At TASC we are so pleased to see more and more of our clients becoming self-sufficient in finding creative solutions that work for them and we’re always happy to offer any advice that can help with this.

We’re waiting to hear from YOU !
To be as flexible as possible in offering support to clients and therapists of TASC, we are now offering a Telephone Advice Service.

When: Twice a week.

Monday, 1.00pm til 4.00pm
(Occupational Therapists offer telephone support around seating and technology)

Wednesday, 1.00pm til 4.00pm
(Speech Pathologists)

Phone: 02 9975 8472 to talk to one of the team

Or drop us an email at:
TASC@cerebralpalsy.org.au
to arrange an alternative time if you are unable to call during that time.
Most of us have seen or heard of an iPad, but the term Android is quite unfamiliar. The TASC team have been getting to know the Android and this article will introduce you to some of the terminology, introduce some useful apps and discuss some of the accessibility features. Further in depth discussion on accessibility will be provided in later issues of TechnoTalk.

**What is Android?**

Android is an operating system like Windows on your computer, only it’s more basic and tailored for use on a mobile device. On Android, everything is done via ‘apps’ – lightweight applications that can be easily loaded to perform almost any task required. The web browser, email, even your phone and SMS are all apps.

**How do we put apps onto Android devices?**

Apps are downloaded via the Google play store. Tap the (Google) Play Store icon on your home page. Type in a keyword and then hit the search button. This will search for apps, books, magazines, movies, games...every type of app related to your keyword. You can narrow your searches within the categories. You will need to have a Google account to purchase items. Simply tap ‘install’ to download.

Here’s a brief explanation of some features of Android devices:

- **Capacitive Touch Screen (type of screen will vary with manufacturer)** these are very responsive to light touch.
- **Customisation of home screen** to make it personal and practical to the individual. There is also the ability to have multiple home screens.
- **Widgets** mini apps that run on your home screen and provide instant viewing e.g. weather, turning on/off settings.
- **Operating System** currently up to Android Version 4.2 Jelly Bean. Each version is named after a sweet, e.g. Cupcake 1.5, Gingerbread 2.3, Honeycomb 3.0, Ice Cream Sandwich 4.0.
- **No Recessed Home Button** the home button is a soft button (permanent icon on touchscreen).
- **Most have a USB or micro USB port**
- **Has all the regular features of tablets:** onscreen keyboard, voice recognition, Wifi, Bluetooth, camera, GPS etc.
- **Android tablets can come in various sizes** 5 inch, 7 inch, 10 inch. Android phones also have various screen sizes (depending on the brand).

**Accessibility features:**

1. **INBUILT FEATURES:**
   
   Android devices come with the following inbuilt features (depending on the version of Android):
   - **Talk Back** a screen reader on the Android that reads out what is touched and activated.
   - **Magnification Gestures** allows for magnification to zoom in the screen.
   - **Large Text** supports users with low vision by increasing the text size.
   - **Text to Speech Output** allows control over the speech rate and voices used.
   - **Touch and Hold Delay** allows adjustments for the time required to touch and hold an item e.g. move an app to the home screen.
   - **Mouse / Track Pad** you can change the pointer speed if you have plugged in a trackball/mouse.
   - **Gesture Mode** this enables users to use touch and swipe gestures to navigate the device.
   - **Vibrate On Touch** gives tactile feedback that you have activate the cell or area.
   - **Voice Search** Android 4.1 and above (Jelly Bean) allows you to use voice commands to operate basic functions in your phone and offline text dictation.
2. APPS:

Below are a few examples of apps you can download to provide an easier way to use your phone or tablet:

**Big Buttons App**
For people who want their onscreen keyboard to have larger keys. The deluxe version also has voice to text microphone, word prediction and large cursor keys.

**Easy Touch App**
Easy Touch floats on your phone screen and provides a very convenient way to access quick settings (change your phone settings like turn on Wifi, change screen brightness and so on), open your favourite app, go to Home Screen, back button, menu button.

**Big Launcher**
A fast and simple Android interface for seniors and people with vision problems. Or even you, if you hate millions of icons.

**Voice Recognition Apps** - Google voice search which allows searching within the Google search engine but there are also apps that extend past that, towards voice recognition that allows you to operate most areas of your phone hands-free, e.g. to send an email.

There are a number of apps that are attempting to enter this space, e.g. Utter, Vlingo Virtual Assistant, Iris, Android Voice Xtreme, some of which are still in trial versions.

Watch out in our future issues for more information as these apps are refined.

3. PLUG INS:

There are a number of options for people who have difficulty accessing an Android device with their hands. These include:

1. **Keyguards**
A keyguard is a plate which can fit over a tablet. The holes are positioned directly over the keys to assist in accuracy of selection. A person can rest their hand on the keyguard and make a single key press. They can be made of various materials including steel or acrylic. A keyguard can be made for a specific app.

2. **Mouth stick or stylus options**
There are many different types of conductive styluses or mouth stick options that can be used to directly access an Android device. These are just a couple of examples sourced from the Etsy website www.etsy.com

3. **External keyboard/mouse options**
An external keyboard can be used to access an Android device should the on-screen keyboard be too difficult to access via Bluetooth or USB connection. If an Android tablet does not have a USB port, a UBS mini to USB adaptor or USB Connection Kit will be required to allow many “plug and play” keyboarding and pointing devices to be used. Alternate mice that do not require driver software including many trackballs, joystick mice or head mouse devices can be supported.

**NOTE**: The mouse cursor size on Android devices is small and not readily resized which may be an issue for some users.
4. Wheelchair Integrated Options

It is possible to use the driving controls of some power wheelchairs to operate an Android mobile or tablet with the addition of the Tecla Shield for Android and the Tecla App for Android (available for free from the Google Play store).

![Tecla Shield Image]

Pictures and information sourced from Komodo OpenLab website http://komodoopenlab.com/tecla/tecla-for-android/

5. Switch Access

Switch scanning of some Android smart phones and tablets can be achieved using the Tecla Shield for Android or ClickToPhone / HouseMate Mobile.

The Tecla Shield (see above) can enable switch access to apps and Voice Actions (Google’s voice dictation and control app). It allows a person to use their voice to enter text into any text box and voice control of common activities such as playing songs, sending text messages or emails.

ClickToPhone enables a person to access their mobile phone through an external switch or by tapping anywhere on the screen. This accessibility software includes lots of features such as the ability to make and receive phone calls and SMS text messages, word prediction when composing text, play music files and view photographs. With the addition of HouseMate hardware,

ClickToPhone also gives the user the ability to record and transmit Infrared codes to control appliances in their environment.

NOTE: Before deciding on an Android tablet, it is important that access options are considered and where possible trialled prior to purchase. For example, the Tecla is not compatible with all Android tablets. The Tecla highlight colour doesn’t always show up depending on the Android tablet and app.

NOTE: Some Android tablets cannot be ‘woken up’ using a switch and require a physical button on the side of the tablet to be pressed. Make sure the tablet has the option to ‘never go to sleep’ if someone has difficulty accessing this button.

REFERENCES:

www.android.com/about/jelly-bean
http://support.google.com/nexus/bin/answer.py?hl=en&answer=2692846
www.click2go.ie/resources/manuals/clicktophone-android-app/
http://komodoopenlab.com/tecla/tecla-for-android/
www.etsy.com
So many choices so……. where do I start???
by
Rachelle Baldock, Consultant, Occupational Therapy and Judith Geppert

With the growing popularity and ever expanding functionality of mainstream devices, such as Android tablets and iPads, the accessories available and the choice of suppliers has increased markedly. The options are seemingly endless and making a decision can be an overwhelming experience particularly when it is often not possible to try before you buy.

As with any assistive technology decision it is best to start the process by considering the needs of the person using the system and not the technology itself. We use the SETT framework at TASC. This involves a consideration of the person’s skills and abilities, the environments of use, the tasks they need to do and the tools they require. Through this assessment process we are able to generate a list of essential features to help decide on the best option(s).

Information about the SETT framework by Joy Zabala can be accessed via her website www.joyzabala.com

Judith Geppert’s (client and employee of CPA) article below demonstrates this approach so well. Judith considered her needs regarding a means of supporting her Android tablet and iPad from her wheelchair and came up with a list of essential criteria. It was this list that she used to assist in the process of searching the web for a suitable option. Judith was clear about her needs and was successful in finding a solution that she is very happy with.

My Pink Friend

Two years ago I brought a Samsung Galaxy Tab (which I use for sending/receiving text messages). Then in 2012 I purchased an iPad.

This year I decided that I needed a Tablet Stand, which would attach to my wheelchair and allow me use of either Tablet without having to swap over different size holders.

Over many months of searching the web I found a website in the UK which could fit the criteria I wanted.

- **Tablet Stand.** The flexible arm has a high-strength spring which extends to 600mm from the base and has a 360° rotational head holder giving versatile use, enabling positioning of Apple iPad, Samsung Galaxy Tablet or any other eReader or Tablet to desired comfort. (Landscape or Portrait position).

- **Rotational Head** is fitted with adjustable corner brackets with small rubber pads protecting against scratches when manoeuvring the Apple iPad, Samsung Galaxy Tablet or any other eReader or Tablet ranging from 5” to 12.6” (128mm - 320mm), allowing for thickness of tablets with or without a case up to 19mm.

- **Designed to withstand Compatible Tablets weighing up to 1000 grams.**

- **Easy to use Screw Clamp.** Can be attached to any solid stable surface with a maximum width of 50mm and has the ability to secure the stand to a desk, bedhead, side table, cabinets etc.

- **Holder is all metal.**

- **Rubber V-Cushion Pole Attachment.** Allows you to clamp Tablet Stand to Wheelchairs, Walkers, Strollers and other Mobility chairs that have pole areas ranging between 20 - 45mm.

* Tablet Stand AU$34.88 + postage
* Rubber V-Cushion Pole Attachment AU$4.35+ postage

Comes in three (3) colours: Black, Silver or Pink Tablet Stand can be purchased through website www.xpressuk.co.uk

* Prices at March 2013
* Information source Xpress Website
Want to learn more about Assistive Technology?

TASC provides several courses across the year through the Cerebral Palsy Alliance’s action PACT Training Service.

We regularly run our ‘Seating and Positioning’ and ‘Powered Mobility’ Courses and our Technology Course, ‘All About Assistive Technology’.

All of TASC’s Courses provide hands-on experience with equipment and a chance to discuss complex cases with our expert team.

To find out more about the range of courses, please look at the Cerebral Palsy Alliance website www.cerebralpalsy.org.au or if you have specific questions about the TASC courses, please contact;

**Phone: 02 9975 8472 or Email: TASC@cerebralpalsy.org.au**

The action PACT website is: www.cerebralpalsy.org.au/our-services/training-and-consultancy/actionpact-learning

**TASC action PACT Courses for 2013**

- ‘Seating and Positioning’ 23/24 April
- ‘Powered Mobility – Plug and Play’ 14 May
- ‘Seating & Positioning’ 15/16 October
- ‘Powered Mobility – Setting the Wheels in Motion’ 17 October
- ‘All About Assistive Technology’ 12/13 November