Using the iPad as Assistive Technology

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The presentation that goes with this handout is at
www.spectronicsinoz.com/blog/workshops/the-ipad-as-assistive-technology/

The resources for this presentation are located on our Apple and Apps Related resources page at
www.spectronicsinoz.com/blog/apple/. We hope you find this page useful!

iPad basics
Please see the entry on iPad Basics on our blog. Of particular interest is the Macworld iPad2 Starter Guide.

App licencing
The Apple App Licence Agreement can be found at http://www.apple.com/legal/itunes/us/terms.html#APPS and a great explanation of what this means is available at https://support.assistiveware.com/index.php?pg=kb.page&id=50

Using the iPad as Assistive Technology
The iPad is a fabulous learning and teaching and assistive technology tool. Of course, we always need to keep good practice in mind when using it. We always need to consider the student, the environment and the task when picking the best tool for each situation. Think about using the SETT framework or another similar model when making these decisions. You might also want to consider using an evaluation rubric for sorting and sharing information about apps. See an example at http://learninginhand.com/blog/evaluation-rubric-for-educational-apps.html. And always remember that the iPad is only a tool – we need to make the decisions about how to use it well and it isn't suitable for everything and everyone.

And with around 750 new apps being submitted to Apple every day there is a lot of change in this area. Many of the resources listed in this handout keep track of specific areas of apps – helping you find out when new relevant apps are released. (See http://148apps.biz/app-store-metrics/ for App Store figures and numbers)

Apps for Literacy Development and Literacy Support
The iPad can be used to support both reading and writing goals within literacy. Consider using Digital Storybook apps to support early readers – apps such as How the Grinch Stole Christmas (from Oceanhouse Media), Blue Hat, Green Hat (from Loud Crow) and Sir Charlie Stinky Socks (from Kiwa Media) or Far to the North HD (from PicPocket Books). Books that have word-by-word highlighting can be helpful for emergent readers and writers. I have had enormous success with some students who have been really motivated by the word-by-word highlighting – but we need to make sure that we don't continue to use word-by-word highlighting once students start to develop their literacy skills as we need to make sure that students develop appropriate eye movements (and we don't move our eyes in a straight line from left to right as we become competent readers).

Use books like "When You Grow Up" from Stepworks to help students develop language and vocabulary concepts. And check out Digital Storytime for digital storybook app reviews and the Daily Deal Page.

Digital book apps are also available for adults. Our Choice, a digital version of the Al Gore book, is an example of a digital book app that makes use of several unique features available to digital books, rather than just being a recreation of a paper book.

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Apple's own eBook reader, iBooks, is also a growing source for eBooks. The Australian store now has a much greater range, and children's picture books are starting to appear in greater numbers. Check out iBooks such as "Baby Wombat's Week". Enhanced iBooks are also available (although small in number) and contain audio to go with the book. "Bach's Farm Animals" is a free enhanced eBook that you can use to check out this format. You can also just search for enhanced books in the iBookstore to see the range. In the next update for iBooks there will also be the option of text-to-speech – but the book developer needs to enable this option so it will probably only work with limited books.

In addition, you can turn your own PPT or Word books and photo stories into PDFs or ePubs and install them in the iBookstore. I will be developing a step-by-step handout on how to do this and add it to our resources.

And Read2Go now offers an accessible eBook reader for readers with learning difficulties. I've done a review of this online at http://www.spectronicsinoz.com/blog/web-links/read2go-app-ready-set-read-for-students-with-learning-difficulties/. Students also need to become members of Bookshare to use this app.

And don't forget that TarHeel Reader is now compatible with the iPad too.

Apps used in this section:

How The Grinch Stole Christmas	iBooks
Blue Hat, Green Hat	Read2Go
Sir Charlie Stinky Socks	Hairy Maclary
Far to the North HD	Five Little Monkeys
When you Grow Up	Just Grandma & Me
Our Choice	Animalia

There are a range of writing tools (and apps which can be used as writing tools) on the iTunes store. Check out Greg O'Connor's list of Apps for Literacy Support for a list of his favourite tools in this area.

SpeakIt! Is one of my favourite apps for using the iPad as a pencil for developing writers. SpeakIt! Lets them write and hear as they write each sentence. The text can then be saved for future editing.

Pages is a full featured word processing app from Apple.

Typ-O HD is another favourite writing app. Typ-O HD has word prediction, speech support for both the writing and the word prediction and users can email the writing to themselves for future editing or to save.

Notability is a helpful app for students in secondary and tertiary study. It lets the user make a recording at the same time as they are taking notes. They can also supplement the notes with photos and other images. I wish I had had this app when I was studying.

Say Text is one of a range of apps designed to read out text from a photograph – these are designed for people with visual impairment but can also be very useful for people with learning difficulties. These apps generally work better on the iPhone – both because the iPhone has a flash to provide better illumination and also because the iPhone, as a smaller device, is easier to hold steady when taking a photo. There are a number of apps available in this category – see Anita Raftery's list at http://www.spectronicsinoz.com/blog/web-links/iphone-ipad-and-itouch-apps-for-people-who-have-low-vision-and-teachers-of-students-who-have-a-vision-impairment/.

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Dragon Dictation is an app designed to convert your speech into text. An internet connection is required at all times for this app to work – and success is a little varied – but this can be a great tool.

There is also a range of handwriting apps available from the App Store – see Carol Harpold's summary at http://otswithapps.wordpress.com/2011/05/01/handwriting-apps-for-ots/. iWrite Words is an example of an app in this area.

The iPad can also be used to help students work on literacy goals in other areas too. For example, Word Wall HD can be used to help develop phonological awareness through onset rime (see http://www.spectronicsinoz.com/article/onset-rime-word-families for more information on this).

Apps used in this section:

SpeakIt!	Notability	iWrite Words	First Words Deluxe
Pages	Say Text	WordWall HD	Magnetic Letters
Typ-O HD	Dragon Dictation	ABC Magic	Word Magic

Tips and Tricks
Make sure that you become aware of the Settings within the iPad that can be useful. Look at restrictions – you can turn off deleting apps and restrict access to some other apps and features.

Go to Settings -> General -> Restrictions to look at the options that can be changed through the main iPad settings.

Also look at the settings within apps. Many special education specific apps have options to change the responsiveness of the touch screen that can help some students. For example, look at TapSpeak Sequence and the Tap/Touch settings.

Working through the MacWorld iPad 2 Starter Guide will also give you some other helpful tips and tricks.

(Please see the end of this handout for further links and resources in this area)

Accessibility and Access
Go to Settings -> General -> Accessibility to see the range of Accessibility Options built into the iPad.

Look at Apple's Accessibility documentation for the iPad and iPad 2. Also check Luis Perez's YouTube Channel which has some great videos in this area and David Woodbridge's MP3s on VoiceOver on the Vision Australia website.

Currently, alternative access to the iPad is very limited. Many of the mouse alternatives, such as the Tracker Pro, are not compatible with the iPad. There are a small number of joysticks available for the iPad – but these only work with apps, such as Pac-Man, which include an onscreen joystick. Currently this seems to be limited to game apps.

There are YouTube videos showing other alternative input apps which are currently being worked on. Some of these have been released e.g. Breath Bird – a Twitter input app which allows the user to type using their breath. As with all alternative access options for the iPad, the access method only works within the app itself.

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Currently there are two switch interfaces for the iPad. The SwitchBox (from Therapy Box – which is identical to the RJ Cooper switch interface) and the Blue2 (from AbleNet). RadSounds is a cause and effect app. The majority of switch operated apps are AAC apps e.g. TapSpeak Choice, a symbol based AAC app with visual and auditory scanning that works with both the different interfaces. Predictable is a text based AAC app that works with the SwitchBox interface. Both of these apps also have the option of using the screen as the switch.

There are a number of styli also available for the iPad. A T-bar stylus and a mouthstick is available from http://www.etsy.com/shop/shapedad. Styli compatible with the iPad have to be compatible with a capacitive screen.

Bluetooth keyboards can be used with the iPad and there are some cases available with an inbuilt Bluetooth keyboard e.g. Logitech keyboard case. In addition, many wired keyboards can be used with the help of the Apple iPad camera connection kit.

Keyguards for specific apps can also be purchased. Lasered Pics make a range of keyguards in both Perspex and Acrylic. Yooralla Glenroy also make Perspex keyguards.

The other information I covered in this area is included in my recent blog "Access Options and Accessories for iPads….Gathering Strength as They Grow".

Attainment Switch is an app that lets you use your iPad as a wireless switch. I have successfully set this up to control Clicker 5 and other switch operated software on my PC and Mac.

Apps used in this section:

Pac-Man	RadSounds	Predictable
Breath Bird	TapSpeak Choice	Attainment Switch

Accessories

The iPad is a very cool piece of technology – but it isn't necessarily durable or moisture proof. Accessories can provide extra protection in these areas – but can also have an impact on the "cool" factor.

The Gumdrop Drop Series cases and the Otterbox Defender are two examples of protective cases. Both make the iPad much more durable in case of accidents but add quite a bit of weight. The iAdapter is a protective case with inbuilt speaker and a cover for the home button.

ZAGG make a full body clear protector called the Invisible Shield which may provide some moisture protection and Tunewear make a very waterproof case called Waterwear which is designed for sailors and which should protect the iPad from rain.

The BubCap is a sticker that goes over the home button and makes it harder to press – available in two strengths.

Some of the information I covered in this area is included in my recent blog "Access Options and Accessories for iPads….Gathering Strength as They Grow".

You can also look at the end of this handout for further links and resources in this area.

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Apps for Language and Articulation
There is a fast growing number of apps for various areas of speech therapy on the App Store. Lots of SLPs blog about apps – but a lot of them also develop them so you need to be aware that not all reviews are unbiased. Speech Gadget has a list of Speech Therapy App Lists and TherapyApp 411 is an app review site by a group of therapists.

Example language apps: Language Builder, Speech with Milo: Verbs, That's Silly
Example articulation apps: ArtikPix, ArticulateIt!

And, of course, there are a wide range of game and other apps which can be used in therapy – as in this great post from Geek SLP http://www.geekslp.com/2011/04/angry-birds-educational-tool-beat-them-join-them/

Apps used in this section:
Language Builder   ArtikPix
Speech with Milo: Verbs   ArticulateIt!
That's Silly

Apps for AAC
There are over 100 AAC apps now on the iTunes store. I keep a list of these (with reviews) at http://www.spectronicsinoz.com/article/iphoneipad-apps-for-aac

There are three main categories of AAC apps – apps with symbol based displays, apps with text-to-speech and symbol displays and apps with text-to-speech and a large variation in the quality of these apps.

As well as apps that can be used directly for communication, there are also some apps which can support low/light tech AAC. RIDBC Auslan Tutor and Baby Sign and Learn in Auslan can both be used to practice signing. Pic Card Maker can be used to make picture cards.

Apps used in this section:
TapSpeak Sequence   RIDBC Auslan Tutor
TouchChat HD   Baby Sign and Learn in Auslan
Verbally   Pic Card Maker

Visual Support Apps
There are a large number of apps which can be used as Visual Supports – and not all of these are specifically designed for this area. There are talking photo apps designed for family holiday snaps which work well for building social stories or making visual sequences. There are also a range of specifically designed visual support apps, such as First Then. Obviously, for each student we need to consider whether these provide enough of a visual cue for each student as the visual support app will be minimised when other apps are being used.

Visual schedules: First Then Visual Schedule, Picture Scheduler

Talking books and photo albums: Pictello, Click 'n Talk

Rewards: ChorePad HD, Visual Grocery

Visual Timers: TimeTimer, ASD Timer

Other: iDress for Weather

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For a round up of some of the highlights in Visual Support apps please see http://www.spectronicsinoz.com/blog/tools-and-resources/visual-support-apps-for-ipodipad/

Apps used in this section:

First Then Visual Schedule	ChorePad HD	iDress for Weather
Picture Scheduler	Visual Grocery	Scene Speak
Pictello	TimeTimer	
Click 'n Talk	ASD Timer	

Organisational Apps

Again, there are a large number of apps that can be used to assist with organisational skills. There are many calendar, appointment and to do list apps, and there are a range which can have picture based reminders. This is likely to be an area which will expand in usefulness greatly when Apple releases iOS 5 later this year – as this operating system will enable reminders to be created with a GPS tag. This will enable the option of having a reminder triggered when a user arrives at a specific location.
Some of the apps in other sections also belong in this area e.g. TimeTimer.

Apps used in this section:

myHomework	PhotoMind
VoCal	Corkulous

For information about organisational apps see http://www.inov8-ed.com/2010/10/theres-a-special-app-for-that-part-1-5-apps-to-improve-organizational-skills-for-students-with-learning-disabilities/ and Eric Sailer's excellent list of apps for special education at http://www.scribd.com/doc/24470331/iPhone-iPad-and-iPod-touch-Apps-for-Special-Education (which includes a list of organisational apps)

Other Apps

There are apps which can work on other skills such as fine motor skills, voice control or sensory apps.

For example:

Dexteria	Web Reader HD	Clock Face Test Large
Bubbles	Clicky Sticky	Fruit Ninja HD
Fish School	HAL The Talking Calculator	Slide 2 Unlock
Animal Sketch	My Underwear	Jungle Coins
Paint Sparkles Draw	Telling Time	Toy Story
Baby DJ	Telling Time – Digital	Jumbo Calculator
Songify	Wheels on the Bus HD	

Please check out reviews and information at http://otswithapps.wordpress.com/category/apps-for-ots/ and also at Innov8's excellent blog at http://www.inov8-ed.com/

Users with Low Vision

In addition to the built-in accessibility options in the iOS there are a large number of apps specifically designed for users with low vision. Anita Raftery has done a fabulous summary of these at http://www.spectronicsinoz.com/blog/web-links/iphone-ipad-and-itouch-apps-for-people-who-have-low-vision-and-teachers-of-students-who-have-a-vision-impairment/. She also includes information comparing the iPad, iPad2, iPod touch and the iPhone 4 as tools – including the usefulness of the camera built into each piece of hardware as a component of a magnification system.

For example:
Easy Reader

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Spectronics

Sources for Quality App Reviews
There are a range of sites which offer reviews of apps. Particualry, look for sites where apps are reviewed by teachers or special ed teachers, although Apps 4 Children with Special Needs does offer videos of apps which can be very helpful.

Please see the end of this handout for my suggestions and favourites.

Opinions and Research
From our Blog
AAC Apps – Speaking APPropriately
iHelp for Autism – the story of a boy and an iPad

External Links
"Learning: Is there an app for that"
Apple iPad2 launch video segment on iPads with children with autism
iPads are not a miracle for Autism
Mobile Devices and Communication Apps and AAC RERC White Paper
Why the iPad should be in classrooms

And don't forget – this is a static document. We will be constantly updating our web page at http://www.spectronicsinoz.com/blog/apple/ with new links, resources, opinions, ideas and information.

RESOURCES AND LINKS

iPad Basics
From Our Blog
iPad Basics

External Links
Apple's own iPad Basics
Macworld iPad2 Starter GuideiPad
Quick Start Guide from iPadsforLearning
Apple's iPad2 manual
Apple's App License Agreement
Assistiveware's explanation of App licensing

Using the iPad as Assistive Technology
From Our Blog
SETT framework

External Links
http://learninginhand.com/blog/evaluation-rubric-for-educational-apps.html.
http://148apps.biz/app-store-metrics/
http://atmac.org/ipad-assistive-technology-disability-round-up

Using the iPad as Assistive Technology

Apps for Literacy Development and Literacy Support
From Our Blog
All about Apps for Special Education
Educational Apps and Resources for the iPad and iPhone
QR Codes – What are they and how can I use them in my classroom

External Links
iPads in the Classroom
Getting Started: Classroom ideas for learning with the iPad from iPads for Learning
Why The iPad Should be used in Classrooms
Ipads in Education
Teach with your iPad
Slide2Learn
Evaluation Rubric for Educational Apps
iPad support booklet for Special Education from iPads for Learning
iPad for Learning
Digital Storytelling with the iPad
OTs with Apps

Tips and Tricks
From our blog
Access Options and Accessories for iPads…. Gathering Strength as They Grow http://www.
spectronicsinoz.com/blog/apps-and-mobile-learning/access-options-and-accessories-for-ipads-
gathering-strength-as-they-grow

Links:
50 Really useful iPad 2 tips and tricks

Accessibility and Access
From Our Blog
Access Options and Accessories for iPads…. Gathering Strength as They Grow
iPhone, iPad and iTouch apps for people who have low vision, and teachers of students who have a
vision impairment (Updated to include the iPad 2)
Switch scanning on iPads? Yes...well...sort of!

External Links
Instructional MP3s from Vision Australia for using the iPad with VoiceOver
Apple iPad Accessibility
Videos on iOS Accessibility Features on Luis Perez's YouTube Channel
ATMac

Accessories
From Our Blog
Access Options and Accessories for iPads…. Gathering Strength as They Grow
iPhone and iPod accessories: iMainGoX and Pogo Sketch

(Please see the end of this handout for further links and resources in this area)

Using the iPad as Assistive Technology

Apps for Language and Articulation
External Links
Speech Therapy App Lists
TherapyApp 411
GeekSLP

Apps for AAC
From Our Blog
http://www.spectronicsinoz.com/article/iphoneipad-apps-for-aac

External Links
AAC RERC White Paper
Apps for AAC

Visual Support Apps
From Our Blog
Charlene Cullen's list of visual support apps

External Links
Indiana Resource Centre for Autism

Organisational Apps
External Links
Innov8
Eric Sailer's list of Apps for Special Education

Other Apps
External Links
OTs with Apps
Innov8

Users with Low Vision
From our blog
http://www.spectronicsinoz.com/blog/web-links/iphone-ipad-and-itouch-apps-for-people-who-have-low-vision-and-teachers-of-students-who-have-a-vision-impairment/.

Sources for Quality App Reviews
From Our Blog
AAC Apps list
Literacy Support Apps list
Visual Support Apps list
iPhone, iPad and iTouch apps for people who have low vision, and teachers of students who have a vision impairment (Updated to include the iPad 2)
What's Appropriate: Using iTunes to Find Gems for Your Students in the App Store

Using the iPad as Assistive Technology

Opinion

From our Blog
[AAC Apps – Speaking APPropriately](#)
[iHelp for Autism – the story of a boy and an iPad](#)

Favourite Sites and Resources