



## eXPLORE with the iPad:

a compilation of accessibility resources and tips for users with visual impairments

Apple Canada

The suggestions in this resource are compiled from the following sources:

- Jessica Rathwell (of Nanaimo, BC), contractor for *Apple Education* and iPhone/iPad user who is blind ([independentdiva@gmail.com](mailto:independentdiva@gmail.com))
- "Is there an APP for that?" handout from AROGA ([www.aroga.com](http://www.aroga.com))
- "Top Tech Tidbits" e-newsletter by Larry Lewis from *Flying Blind Publication* (<http://www.flying-blind.com>)
- "Using the iPad with Students who are Blind or Visually Impaired" PowerPoint presentation by Roy McConnell, Learning Resources Centre - Alberta Education (<http://vision.alberta.ca/training/workshopmaterials/ipadworkshop.aspx>)



### iPad2 Navigation in iOS 5:



- 5-finger pinch to minimize current app and return to the Home Screen
- 4-finger swipe up (or double-click the Home button) reveals the multitasking bar (also known as the "app switcher")
- 4-finger swipe left or right switches between open apps (useful, for example, when reading the PDF version of a textbook and then switching quickly to a word processor to write responses)
- 2-finger expand/pinch increases/decreases the magnification in certain apps (without needing to use "Zoom")

### Low vision features on the iPad:

- "Zoom"
  - o activate in "Settings – General – Accessibility" or set as default "Triple-click Home"
  - o activate with a 3-finger double tap then release on the screen
  - o adjust zoom level with a 3-finger double tap and hold on the screen, followed by sliding 3-fingers up or down (to enlarge or reduce respectively)
  - o navigate with a 3-finger single tap and hold, then move around the screen
  - o this feature works well in the Home Screen as the fonts there cannot be enlarged otherwise
- "Large Text"
  - o maximum size is 56 point
  - o only works on some built-in apps (such as Notes, Calendar, etc.)
- "White on Black" – not actually black and white contract, but rather a reversal of all colours
  - o activate in "Settings – General – Accessibility" or set as default "Triple-click Home"
- "Speak Selection" – whatever is highlighted in most apps can be read aloud (e.g. Safari)
  - o activate in "Settings – General – Accessibility"
- To reduce/eliminate glare from the high-gloss screen, consider applying a matte screen protector (there are many after-market manufacturers such as *I-con*, available at *BestBuy*, etc.)



### **iPad Navigation with VoiceOver** (<http://www.apple.com/accessibility/ipad/vision.html>):

- activate in “Settings – General – Accessibility” or set as default “Triple-click Home”
- without needing to be touch above each one, the user can move systematically from one “container” (an option within an app) to the next, or move from one app or app folder to the next on the Home Screen; this is done by flicking to the right with a single finger (a flick left will go to the previous), then double-tap to open/activate
- to turn off apps, open the multitasking bar / “app switcher” (by using a 4-finger flick up, or double-click the Home button), then double-tap-and-hold on the app to initiate the “editing apps... remove from app switcher” option...
- 1-finger tap reads the item under the finger
- 1-finger flick right or left select the next or previous item
- 1-finger flick up or down changes the Rotor setting (e.g. text-to-speech language, typing mode)
- 2-finger flick up reads from top of page
- 2-finger flick down reads from current position
- 2-finger tap pauses reading
- 2-finger tap restarts the reading
- 2-finger double-tap plays or pauses currently music or video selection
- 3-finger flick up or down to scroll up or down on a page
- 3-finger flick right or left to scroll page-by-page next or previous
- 3-finger double-tap will mute/unmute VoiceOver
- 3-finger triple-tap turns on/off the visual display (apparently does not conserve power?)
- Additional navigation commands via braille displays  
([http://support.apple.com/kb/HT4400?viewlocale=en\\_US&locale=en\\_US](http://support.apple.com/kb/HT4400?viewlocale=en_US&locale=en_US))

### **Keyboard typing:**

#### On-screen keyboard:

- with VoiceOver enabled, “standard” typing requires a double-tap on each letter; however, “touch” typing can be enabled where one only needs to let go of the desired letter to have it typed (much faster typing mode)
- to change typing mode when using VoiceOver, a setting called “Rotor” can be changed to switch between typing mode
  - o when typing in a text field, use 2 fingers to make a rotating motion (for example, using one’s thumb and forefinger, open a bottle top or twist an imaginary dial), and rotate until “Typing Mode” is announced
  - o perform a flick up or down to switch back and forth between “standard” and “touch” typing

#### External keyboards:

- various Bluetooth keyboards are compatible with the iPad (Apple brand or other manufacturers), and connect wirelessly (but use more battery power)
- the “Apple Keyboard Dock” (no longer available) connects via the 30 pin port (at the bottom edge of the iPad), but only allows for portrait orientation of the screen
- some USB keyboards can connect to the iPad using the USB adapter from the “Apple Camera Connection Kit” (ZoomText keyboard, for example)

### **Web resources:**

- iPad user guide: [http://manuals.info.apple.com/en\\_US/ipad\\_user\\_guide.pdf](http://manuals.info.apple.com/en_US/ipad_user_guide.pdf)
- iPhone user guide: [http://manuals.info.apple.com/en\\_US/iphone\\_user\\_guide.pdf](http://manuals.info.apple.com/en_US/iphone_user_guide.pdf)
- AppleVis: Accessible apps, guides & discussion for blind and vision-impaired users of Apple devices [www.applevis.com](http://www.applevis.com)
- Article: The Complete Guide to iTunes Books, Podcasts + iTunes U:  
<http://www.ilounge.com/index.php/articles/comments/the-complete-guide-to-itunes-audiobooks-podcasts-itunes-u/>
- Accessible iPad Blog which discusses the accessibility of this device for a variety of people.  
<http://accessibleipad.blogspot.com/>

**Web resources (continued):**

- audio demonstration of the capabilities of Siri on the iPhone 4S.  
<http://audioboo.fm/boos/544034-a-comprehensive-audio-demonstration-of-siri.mp3>
- About iOS5 and the new iPhone 4S <http://www.tripleclickhome.com/>
- Podcasts on Apple products with VoiceOver from Vision Australia:  
<http://www.visionaustralia.org/atpodcasts/>
- Mac-cessibility Network accessible iPhone apps <http://maccessibility.net/iphone/apps/>
- List of supported wireless braille displays for iOS 5  
<http://www.apple.com/accessibility/iphone/braille-display.html>

**Suggested Apps (iPad/iPhone Application Programs):****Accessible games:**

- Papa Sangre (\$4.99)
  - o A bit of a scary game app?
  - o <http://itunes.apple.com/us/app/papa-sangre/id407536885?mt=8>
- Text Twirl! (free) <http://itunes.apple.com/us/app/text-twirl!/id428793596?mt=8>
- Bop It!™ for iPad (\$2.99) <http://itunes.apple.com/us/app/bop-it!-for-ipad/id438719058?mt=8>
- Zany Touch Free (versus Zany Touch full version for 99¢)
  - o <http://itunes.apple.com/us/app/zany-touch-free/id354661008?mt=8>
- Arcade Hoops Basketball (free – also in full for 99¢, and HD version for \$1.99)
  - o <http://itunes.apple.com/us/app/arcade-hoops-basketball-free/id306126286?mt=8>
- Stem Stumper Lite (free); also in full for 99¢
  - o <http://itunes.apple.com/us/app/stem-stumper-lite/id435669104?mt=8>

**Camera apps:**

- LookTel Money Reader (\$9.99)
  - o <http://itunes.apple.com/us/app/looktel-money-reader/id417476558?mt=8>
  - o claims to be able to recognize US dollars, Euro, British pounds, Canadian dollars, and Australian dollars – without WiFi access
- Omoby (free) - takes pic of image, searches on Google to recognize product
  - o <http://itunes.apple.com/us/app/omoby/id353867169>
- Digit-Eyes (lite = free; full = \$29.99)
  - o <http://itunes.apple.com/us/app/digit-eyes-lite-qr-bar-code/id379865944?mt=8>
  - o Create unique QR codes that you can print and attach to household objects – just scan and the iPad/iPhone will inform the user what object they've scanned (e.g. differentiate between various boxes in the cupboard)
- VizWiz (free) – blind users take a picture with their iPhone/iPad, ask a question, and via WiFi sends and receives a response from a remote sighted assistant
  - o <http://itunes.apple.com/us/app/vizwiz/id439686043?mt=8>
- Listen At It app (free)
  - o this iPhone app will take a photo using your device's rear camera, then by moving one's fingers around, sounds represent color and brightness of the picture... apparently by rubbing one's finger back and forth, one may be able to identify the object in the pic
  - o <http://itunes.apple.com/us/app/listen-at-it/id465884569?mt=8>
- aidColors (99¢) – developed for the visually impaired to identify the color of objects
  - o <http://itunes.apple.com/app/aidcolors/id365495704?tm8>
- Color Blind Aid (99¢) – developed for the iPhone
  - o it alters the spectrum displayed on the screen so persons with red-green colour deficits can identify colours
  - o <http://itunes.apple.com/us/app/color-blind-aid/id351425486?mt=8>
- Magnifier apps... there are DOZENS! Many are free (and as such, some free ones are terrible, but some are not) e.g. <http://itunes.apple.com/us/app/eye-glasses/id331625886?mt=8> (\$2.99)

**Videoconference:**

- FaceTime (built-in) – connect to others via audio and/or video to another iDevice with FaceTime
- Skype – connect to others via audio and/or video to anyone running Skype on their iDevice or computer desktop/laptop (PC or Mac)
  - o <http://itunes.apple.com/us/app/skype/id304878510?mt=8>
  - o can only connect 1-to-1; does not work for conferencing via Skype business version
- SMART Bridgit Conferencing (free) – share desktop image, video feeds & audio to the iPad
  - o <http://itunes.apple.com/us/app/smart-bridgit-conferencing/id433502122>
- Polycom® RealPresence™ Mobile (free) – the makers of videoconference equipment
  - o Join an existing videoconference session right from your iPad!
  - o <http://itunes.apple.com/ca/app/polycom-realpresence-mobile/id465412616?mt=8>

**Recording audio / recording speech-to-text:**

- VoiceMemo (built-in)
- List Recorder (99¢) <http://itunes.apple.com/us/app/list-recorder/id381936335?mt=8>
- Dragon Dictation (free) <http://itunes.apple.com/us/app/dragon-dictation/id341446764?mt=8>
  - o Speech-to-text app
- AudioNote Lite (free)
  - o <http://itunes.apple.com/ca/app/audionote-lite-notepad-voice/id379301403?mt=8>
  - o Records background audio in real-time while user is typing notes
  - o When reviewing one's notes, the audio (lecture) can be referenced and played back

**Navigation:**

- compasses for iPad
  - o iPad2 has the built-in compass technology but no app (unlike iPhone which has an app)
  - o there are many compass apps (some free, some not)
  - o some may work with VoiceOver
  - o some have better contrast for low vision (e.g. <http://itunes.apple.com/us/app/compass-for-ipad-free/id378640003?mt=8>)
- Sendaro GPS LookAround (\$4.99) – accessible GPS app for iPhone
  - o <http://itunes.apple.com/us/app/sendaro-gps-lookaround/id386831856?mt=8>
- Navigon Canada – GPS that works with the built-in accessibility on the iPad/iPhone
  - o Available for multiple countries
  - o <http://itunes.apple.com/us/app/navigon-canada/id366427976?mt=8>

**Word processing:**

- Notes (built-in)
  - o limited font selection
  - o files can be emailed (if the iPad is configured for email and has wireless access) or printed to a wi-fi printer
- PlainText (free)
  - o <http://itunes.apple.com/ca/app/plaintext-dropbox-text-editing/id391254385?mt=8>
  - o similar to Notes, but can organize files into folders and send via DropBox (see below)
- Pages (\$9.99)
  - o <http://itunes.apple.com/ca/app/pages/id361309726?mt=8>
  - o limited filing system (1 layer of folders)
  - o for taking notes, importing Word documents, emailing assignments, saving to iCloud
  - o Note: according to Jessica, iCloud seems a bit cumbersome to transfer documents; she prefers DropBox (<http://itunes.apple.com/ca/app/dropbox/id327630330?mt=8>)
- EverNote (free)
  - o <http://itunes.apple.com/ca/app/evernote/id281796108?mt=8>
  - o filing system (multiple layers of folders and subfolders)
  - o files saved to iCloud
- Quickoffice® Pro HD (\$14.99)
  - o <http://itunes.apple.com/ca/app/quickoffice-pro-hd/id376212724?mt=8>

### PDF documents viewers:

- iBooks (free) – can open PDF files in addition to various book types
  - o does not allow text to be selected (and therefore **Speak Selection does not work**)
  - o 2-finger pinch/expand works best for low vision
  - o Zoom works, as does VoiceOver (if PDF has rendered text and not just an image of text)
  - o <http://itunes.apple.com/us/app/ibooks/id364709193?mt=8>
- kobo (free) – can open PDF files in addition to various book types
  - o does not allow text to be selected (and therefore **Speak Selection does not work**)
  - o 2-finger pinch/expand works best for low vision
  - o Zoom works, but **VoiceOver does not**
  - o <http://itunes.apple.com/us/app/kobo-1-million-free-books/id301259483?mt=8>
- GoodReader for iPad PDF reader (Low Vision friendly; doesn't work with VoiceOver) \$4.99
  - o read PDFs, personalize magnification settings and contrast; option to switch to text-only mode when auto-wrap limits navigation
  - o untested for accessibility
  - o <http://itunes.apple.com/ca/app/goodreader-for-ipad/id363448914?mt=8>
- pdf-notes for iPad (free; upgrade to non-advertising version for \$9.99)
  - o allows user to add notes overtop the PDF document
  - o works well with DropBox
  - o 2-finger pinch/expand works best for low vision
  - o does not allow text to be selected (and therefore **Speak Selection does not work**)
  - o some features conflict with Zoom feature's 3-finger commands; not VoiceOver friendly
  - o <http://itunes.apple.com/app/id391487223>
- Adobe Reader
  - o does not allow text to be selected (and therefore **Speak Selection does not work**)
  - o 2-finger pinch/expand works best for low vision, and works with Zoom feature
  - o menus are VoiceOver friendly; reading the actual document is not VoiceOver friendly
  - o <http://itunes.apple.com/us/app/adobe-reader/id469337564?mt=8>

### Apps specific for playing accessible DAISY books:

- VOD Lite "voice of DAISY" (free; full version is \$25.99)
  - o <http://itunes.apple.com/ca/app/vod-lite/id398997553?mt=8>
- DaisyWorm (99¢)
  - o <http://itunes.apple.com/us/app/daisyworm/id383777731>
- inDAISY (\$19.99)
  - o <http://itunes.apple.com/ca/app/indaisy/id377597460?mt=8>
- Read2Go (\$19.99) – for BookShare books
  - o <http://itunes.apple.com/ca/app/read2go/id425585903?mt=8>
- Learning Ally Audio (\$19.99)
  - o Formerly the Recording for the Blind & Dyslexic app; access to audiobooks only with yearly membership (\$99 USD)
  - o <http://itunes.apple.com/us/app/rfb-d-audio/id418888450>

### Miscellaneous:

- large high-contrast clock – both analog and digital (free)
  - o <http://itunes.apple.com/us/app/clocks-2/id403684793>
- Jumbo Calculator (free)
  - o <http://itunes.apple.com/us/app/jumbo-calculator/id361121377>
- VLingo (free) – note: iPhone app
  - o <http://itunes.apple.com/ca/app/vlingo-voice-app/id297214191?mt=8>
  - o works similar to Siri on older iPhone4 (not 4S) to enable voice function
- TypeInBraille (\$4.99) <http://itunes.apple.com/us/app/typeinbraille/id474798075?mt=8>
- Silver Surf web browser (free)
  - o <http://itunes.apple.com/us/app/silver-surf/id364907596?mt=8>

### Miscellaneous (continued):

- Qwiki (free)
  - o 3,000,000 topic encyclopedia with built-in text-to-speech or can work with VoiceOver
  - o <http://itunes.apple.com/us/app/qwiki/id373717412?mt=8>
- Dictionary.com HD app (free; HD version without advertising is \$4.99)
  - o Does not require WiFi/Internet connection
  - o 2 million word dictionary plus thesaurus and antonyms/synonyms
  - o audio pronunciation of words, and even speech-to-text recognition
  - o <http://itunes.apple.com/us/app/dictionary.com-dictionary/id364740856?mt=8>
- Periodic Table of the Elements by Kevin Neelands (free app, works well with VoiceOver)
  - o <http://itunes.apple.com/us/app/periodic-table-elements/id364894399?mt=8>

### Cortical Visual Impairment (CVI) apps from Christine Roman-Lantzy's 2010 list:

- Fireworks! (99¢) by miSoft.com
  - o tap the black screen to start fireworks of various shapes and colours where tapped
  - o <http://itunes.apple.com/us/app/fireworks!/id364390735?mt=8>
- LED Light Box (\$1.99) by Greg Gineys
  - o use your iPad as a portable Light Box in bright-white light mode and red light mode; use with translucent objects on the screen for students to view
  - o <http://itunes.apple.com/us/app/led-light-box/id383576178?mt=8>
- Interactive Alphabet (\$2.99) by Piikea St. LLC
  - o interactive colorful flashcards: students select a letter, hear the phonic sound, play an animation
  - o <http://itunes.apple.com/us/app/interactive-alphabet-abc-flash/id383967580?mt=8>
- ColorPlay HD (lite = free; full = 99¢) by Tony Huynh
  - o load colouring sheets, select a colour from the palette then tap where one wants to colour; when done colouring, tap the 'play' button to animate
  - o <http://itunes.apple.com/us/app/colorplay-hd-lite/id398332223?mt=8>
- Glow Draw! By Indigo Penguin Limited
  - o draw on blank background or upload a picture to draw on
  - o <http://itunes.apple.com/us/app/glow-draw!/id364873934?mt=8>
- Sound Touch (Lite = free; version without advertising = \$3.99) by SoundTouch
  - o Main menu presents categories of animals, vehicles, etc., all with cartoon choices on white background; once in a category, each is a real photograph (many on simple backgrounds) with the accompanying real sound
  - o <http://itunes.apple.com/us/app/sound-touch-lite/id363705863?mt=8>