Webwords 45

Apps for speech-language pathology intervention

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Personal computers (PCs) are devices that have at least one processing element – typically a central processing unit (CPU) and some form of memory. They are programmable to perform a predetermined set of mathematical or logical operations of input, processing, output and storage. The results of these operations can be saved, stored and retrieved by users. PCs come in many forms including the desktop, the laptop or notebook, its smaller relation the netbook or lunchbox PC, mobile devices, wearable computers the size of a wrist watch or even smaller, personal digital assistants (PDAs), tablet PCs such as iPads and Androids, and tablet e-book readers like e-Reader and Kindle. As with so many other professions, all of these devices and their input, output and storage peripherals have found a place among our work tools.

Of the mobile devices (iOS, iPOd, iPad, Android and Blackberry), tablet computers and their application software (applications or apps) in particular have caught on. An app, such as iTunes, Microsoft Office or the calculator on a computer, is computer software designed so that the user can perform specific tasks. An app can run on the Internet, on the user's computer, or on a phone or other electronic device.

Lists

The word "app" is on (nearly) everyone's lips and many authors have attempted the impossible task of creating the definitive list of the best ones for speech-language pathologists to use in assessment and intervention, and lists of "top apps" in general. But as Holland, Weinberg and Dittelman (2012, p. 223) found, "Recommending apps today meant modifying the list soon thereafter. This is because there are so many of them, and the number is only growing." Such lists include Sean Sweeney's continually updated collaborative SLP Apps List, Bradd Spirrison's 20 Best iOS and Android Apps of 2012 (so far) on TechCrunch, Aubrey Taylor Klingensmith's What is the Best AAC App out there? on speechie apps, Katherine Kelley's Best List of Speech Language Apps on peachy speech, and Judith Kuster's (2012) "In search of the perfect Speech-Language App?" in her Internet column.

Blogs, boards, professional publications and social media

Blogs and message boards

In November 2012, Webwords 44: Life online touched on blogs, message boards and social media pages developed by colleagues as resource sites. These included a speech therapy app review blog by Mirla Raz and Pat Mervine's collection of app recommendations on the Speaking of Speech message board. Others are Speech-Language Apps by Dina Derrick, Speech Language Pathology Sharing by Eric Sailers, Apps for Older Students to Enhance Language and Learning Skills by Marg Griffin, and The Speech Guy by Jeremy Legaspi. Therapy App 411 edited by Renata Joy, Jeremy Legaspi, Sean Sweeney and Deborah Tomarakos is a collaborative blog with contributions by SLPs, OTs, other therapists and special educators.

Professional publications

Increasingly, the *ASHA Leader* features articles about apps. For example, Apps: An Emerging Tool for SLPs (Gosnell, Costello & Shane, 2011), Apps to Aid Aphasia (Sutton, 2012a), Apps for Brain Injury Rehab (Sutton, 2012b), App-Enabled Telepractice (Curtis & Sweeney, 2012), and Apps That Crack Curriculum Content (Sweeney, 2012). Todd Wingard's excellent overview Apps for Speech-Language Pathology Practice on the ASHA website sets out twelve advantages and two disadvantages of using mobile devices and apps in education settings and an assortment of useful links to other articles. The disadvantages he nominates are the initial setting up costs and the need to have a WiFi or 3G network available because mobile devices cannot be "plugged in" to the Internet.

Social media

Since June 2012 the Speech Pathology Australia's social media activity has incorporated a Facebook group called APPropriate Apps. It provides both a forum and a learning opportunity where SPA members can discuss and share information and advice about apps, mobile devices and related technology. Fun-loving Sharon Crane who expertly moderates the group and active contributors to the site regularly come up with quirky offerings such as the Sesame Street song "There's an App for That", time- and effort-saving resources like Sound Literacy (no more phonics tiles or weighty magnetic letters!), and excellent finds like 10 Alternative Communication Apps for iPad.

Evaluating and rating apps

Every now and then there is a reminder to SLPs in the informative sources described above that speech-language pathology is a scientific, evidence based discipline (Dollaghan, 2004) and that very few apps are associated with peer-reviewed evidence that has been published in the juried literature. Recognising this, ASHA addresses the question of what to ask when evaluating any treatment procedure, product or program in an article that concludes with a helpful list of eight additional questions specifically related to mobile devices and apps.

In a related piece, Wakefield and Schaber (2012) suggest a method of using evidence to choose a treatment app. The authors elaborate a 5-step process: 1) Frame your clinical question using PICO (population, intervention, comparison, and outcome); 2) find the evidence; 3) assess the evidence; 4) search the app store and consult the evidence; 5) Make a clinical decision and integrate the different types of evidence to determine your choices.

Deborah Tomarakos of Speech Gadget presents her App review checklist cum star rating system for reviewing

speech/language/educational apps in her ASHAsphere article "Rate that App". She rates under four headings: *1) General information and operation* for a possible six clearly specified points, *2) Features* also for up to six, *3) App design* for up to four, and *4) (suitability for) Speech/language use* for up to 4. Potentially, an app can achieve 20 points. The points are used to award a star rating to the app: 17–20 points attract a 5-star rating, 13–16 points is four stars, 9–12 points is three stars, 5–8 points is two stars, and 0–4 points is one star. Webwords has two suggestions. First to modify the scale so that 1–4 points would attract one star, and zero points would be starless, and second to add a further heading, *Evidence and theory*.

EBP, ethics and apps

SPA's (2010a, p. 3) Position Statement on Evidence-Based Practice in Speech Pathology states that:

> *It is the position of Speech Pathology Australia (The Association) that speech pathology is a scientific and evidence-based profession and speech pathologists have a responsibility to incorporate best available evidence from research and other sources into clinical practice. Speech Pathology Australia has a strong commitment to promoting and supporting evidence-based practice. The development of a coordinated, national evidence-based practice strategy is a key strategic goal of the Association.*

Under the heading of "Fairness (Justice)" in the SPA (2010b) Code of Ethics it says, "We provide accurate information. We strive to provide clients with access to services consistent with their need."

The proliferation of apps and the enthusiastic and sometimes undiscriminating use of them by both speech-language pathologists and consumers raises ethical issues, and as Leitão et al. (2012) point out, when ethical issues arise we need to be proactive in our (evidence based) professional lives. But how do we accurately and constructively inform consumers about the apps that they introduce to us and that we introduce to them?

The answer may lie in an article by Clark (2003) who discussed the strategy an SLP can adopt when selecting an intervention. She suggested that the clinician can start with the question "*Does* this therapy work; is it evidence-based?" and seek answers via a literature search. If the literature search fails to reveal evidence for the therapy, the clinician can ask a different question: "*Should* this therapy work; is it theoretically sound?" and seek an understanding of how the non-evidence based intervention is *supposed* to work, developing an account of the mechanism underpinning the intervention. After all, we do not knowingly embark on an intervention path unless we believe that it is going to work in the client's favour.

Applying Clark's strategy to apps, we could change the first question to: "Does this app work; is it evidence based?" and if the answer is "no", rephrase the second question as "Should this app work; is it theoretically sound?" and develop an easily understood rationale, and no hard sell, for including the app in the client's intervention regimen.

Consumers of our services, or their carers, should know that in simple terms there are four overlapping types of speech-language pathology app: those that are purpose designed to treat communication or swallowing disorders, repurposed apps that were not originally intended for SLP intervention, apps whose aim is to provide an incentive or motivation in the process of SLP intervention, and apps designed to track intervention data. When any app-based activities are introduced they need to know *why*, and they need to know what *outcomes* the clinician hopes to achieve for the client, and the clinician needs a transparent means of measuring and demonstrating the outcomes. It is a simple idea; it fits with the way we do business; and it is a good place to start.

The Code of Ethics and the Position Statement on EBP were researched and written before the release of the first iPad three years ago in April 2010. The EBP Position Statement is due for review in a little over three years time in August 2016. Webwords shied away from making a list of top apps for the profession, and is even more wary of predicting the sort of development we might see in mobile devices and apps in the next three or so years. A Google search for "what is the future of apps" will give the reader an inkling of the massive technological changes that may be in store.

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Links

Like all Webwords columns, this one is available online at www.speech-language-therapy.com. Readers are invited to visit Webwords 45 on the Internet to view the websites featured here, taking advantage of the resources many of them hold.