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Engendering Digital Independence in Students that Rely on AAC:

The Promise, Issues, Ideas and Suggested Next Steps

by Bob Williams

The Promise:

The concept of "digital independence" is gaining fluency and varied meaning in several different contexts and field. For independent media makers, for example, it means having the artistic, commercial, economic and legal freedom to create, produce, disseminate and profit from their own work. It further implies being able to access use current and emergent digital technologies for their own creative aims, especially to defy outdated norms and conventions (Digital Independence 2004).



Wanderman, Clark and Koethnig (2002) seem to have been the first to recognize that the idea of digital independence and its application has particular importance for people with a wide range of disabilities. They suggest that:

Making processes digital (reducing them to bits) can, and many times does, make those processes more accessible for everyone but particularly accessible to people with a range of disabilities that affect their access to the analog processes.

In other words, the more acculturated people with significant disabilities become to doing everything from reading, writing, listening to music, making purchases, pursuing a career and connecting with family and friends online to going wireless on the commode, the more personal independence they're likely to experience in life. Wanderman and his colleagues do not define what the term means in this context. But, even absent a fixed definition it seems self evident that at the very least digital independence means and requires:

Having meaningful, effective access to the opportunities, tools, skills, supports, motivation and reason to use universal and assistive technologies in tandem to exercise greater personal choice, autonomy and mastery in their life and future.

Gaining and continuously improving upon such ready use of digital strategies to living and learning is, of course, essential to the current and future success of all young people. But, this is particularly the case with regard to students with disabilities who rely on AAC as their main means of expression and self direction as well as self sufficiency someday.

Issues:

When asked 80% of parents of elementary and middle school students with disabilities said that their sons and daughters have good computer skills (Wagner and Blackorby, 2004). Similarly, about a third parents of high school students with disabilities said that these young people spend much of their time at home on their computers and the Internet (Wagner and colleagues, 2003).

But using a computer to research and write a term paper, chat with and e mail friends or just surf the Internet continues to be difficult, if not currently impossible, for many. This is likely especially true with regard to students with intellectual and/or multiple disabilities as well as

those from low income households. Similarly, using the Web, e mail, online chat rooms, Word and other digital devices such as cell phones, video games, e books, a MP3 player, smart cards, etc., -- constants in the lives of most young people in the U.S. – remains a paradoxical pursuit for those that use AAC devices.

That is, on the one hand, it is entirely possible to use an AAC device and still use of all of this gadgetry. In fact, an AAC device can become the digital curb cut for readily accessing and eventually become masterful at all of these types of activities and technological applications.

However, AAC devices are not yet designed to be used in conjunction with, let alone as a "key board" for or even as the on/off switch most other digital devices. The exception to this is a desk or laptop computer. The introduction of infrared capabilities has made it far easier use a computer via an AAC device and execute simple environmental control commands such as switching on lights and "picking up a phone". Navigating the Internet, sending an e mail, posting an appointment on your Outlook calendar, reading an e book, researching a paper online – these things are also all quite possible to do using an AAC device as one's key board, they are all within reach.

Yet, learning how to do these sorts of activities on an AAC device often is also a very laborious, frustrating and fairly complex venture to repeatedly undertake. This is likely particularly true with regard to children and young people who are often introduced and expected to learn how to use their AAC, a computer and the Internet all at the same time. Or, even worse, neither expected nor given a meaningful chance to learn to use any of these or other digital devices at all.

Ideas and Next Steps:

What will it take to engender an increasing sense of digital independence and the abilities necessary to sustain it in the everyday lives, habits and routines of young people that use AAC? It will require that these students – along with their parents, teachers, siblings, friends and supporters – master what is best described as the fine art of scaffolding: Making certain that the use of universal and assistive devices and applications securely support, complement and work in unison with each other so that the access, mastery and power such combined technologies afford will be magnified several fold.

Scaffolding must become second nature to these students and a primary problem solving skill that they use throughout life if they are going to make the most out of all that technology writ large has offer both today and in their future. Adults that use AAC and are proficient with both their devices, using a computer, e mail, the Internet and other digital devices have typically, if not exclusively, become "master scaffolders" over a period of years and largely always through trial and error. Indeed, trial and error is a necessary tool for sharpening one's wits and skills, and a certain amount of it likely is indispensable.

If this and future generations of students that use AAC devices are to succeed in this digital age, however, leaving such matters entirely to happenstance simply will not do. Indeed, it is unconscionable. The aim should be – as indicated at the outset – to make certain that young people with significant disabilities are acculturated and given all the advantages of living in an increasingly digitalized society – both early and often throughout their formative years.

This, in turn, will require that these students, their families, teachers and supporters be exposed to and have successful experiences in how the combined use of an AAC device with other web based or digital devices can bolster a student independence, academic success, opportunities for improving strong friendships and their overall self image.

Proposed Approach:

One approach to creating such exposure and success might be through "work shopping" specific digital skills, strategies and solutions the student can learn and use to do things he or she is highly motivated to do – download and listen to their favorite band – or must do in school – write a term paper. Specifically, this would entail working collaboratively with a "team" made up a student, their teachers, parents, brothers and sisters, friends and other resource persons over several months to:

1. Identify specific activities, subjects and tasks that the student wants and/or needs to master with greater proficiency, efficiency and ease
2. Identify specific digital skills, strategies and solutions the student can learn and use to achieve these aims
3. Workshop – practice, refine, hasten and continuously improve upon – how the student is able to readily access and use the digital short cuts to do whatever it is he or she wants and/or needs to do

Many young people and adults that use AAC already have developed their own individual and often idiosyncratic "bag of tricks", macros, shortcuts and techniques for accessing and living in a networked and digitalized world. But, no known attempt has been made to gather, review, synthesize and write up these practical strategies in a manner that can be made readily available for young people to use and/or adapt for their own purposes.

Identifying What Kids Using AAC Want and Need to Do Using a Computer or a Handheld Device:

The most straightforward way to do this would be to interview and spend time with a student as well as their teachers, parents, brothers and sisters, friends and other resource persons in order to identify and come to agreement on:

1. What the top 5 things are that the student currently does, would like to do and/or needs to do using a computer or some other digital device(s) either in tandem with or independent of their AAC device.
2. What skills, "bag of tricks", macros, shortcuts and techniques the student already has in respect to using a computer, the Internet, e mail, hand held devices, etc.
3. What skills, "bag of tricks", macros, shortcuts and techniques the student would find useful to acquire, refine or possibly adapt for another similar use.

Once this was done a plan would be developed to assist the student to acquire, brush up on or modify their skills in these areas. Where possible the student could receive online mentoring from a more experienced AAC user as part of this process.

Identifying Access Strategies That Works:

Additionally, a virtual advisors group made up of individuals that are experienced users of AAC, the Internet and other technologies and select practitioners could be created and asked to share ideas and "how to" suggestions. Typical requests along this line would include something like:

What tips would you have for a kid using AAC on the easiest and most efficient way to

- chat with or e mail or telephone a friend online;
- play a game or do a crossword;
- download music,
- search and move about websites and the Internet,
- use Word and other software,
- read e-books,
- use the Internet to research and write a term paper,
- use an online dictionary and encyclopedia,
- use a smart card to order pizza, etc.

Advisors would be asked to share and post such advice on a list serve and/or blog. Based on such shared experience as well as my own, a series "How To" tips sheets would be prepared on how to do each these types of activities using an AAC device, a computer, the Internet and/or other digital technology.

These sheets would then be shared with students using AAC, their families, teachers and others both for their use and feedback on their effectiveness as a teaching tools and ways they might be improved upon.

Work shopping Digital Independence:

A third set of activities that could be then undertaken is that of identifying and pursuing very concrete ways students using AAC could get their first tastes of success and digital independence. This could be done through a team approach as outlined above. Ideally, teams could be established for students that use AAC who at the following grade levels: K-3, 4-6, 7-9, 10-12 and college.

Conclusion:

It is self evident that to succeed in the "real world" of the 21st Century the vast majority of children and young people in school today will be first required to show their mettle and mastery of all things digital. This will be no less true and in some ways far more true of students that use AAC devices to let the world know what it is they know, what it is they are capable of and what it is that they are intent on making of themselves.

Ann McDonald, who spent most of her life on the backward of an Australian institution, writes in her autobiography that:

Unless someone makes a jump outside of a persons previous stage of communication there is no way the speechless person can do so. Failure is no crime! Failure to give someone the benefit of the doubt is. (Crossley and McDonald)

Digital technology and its applications can enhance the education, independence and futures of young people that use AAC devices in ways large and small. This requires that those of us who can leap over the ever widening digital abyss so now and improve the necessary strategies and resources to bring this and future generations of young people that support on AAC along with us.

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