

Simplicity is the Ultimate Sophistication.

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T4I communication type: Non-Research

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1. Overview

The authors have observed, complex technological solutions are often explored but the complexity of these solutions may actually become a burden or barrier either to the user or their support network. In these cases, simpler solutions, which may have been overlooked may provide a more effective option.

2. Background

Technology has been proven to be of great benefit to people with physical disability in terms of allowing continued independence, social participation and cognitive activities. However, finding solutions for adults and children with physical disabilities to access this technology can be inherently complex due to their posture, their range or type of movements and their limitations.

Historically, before the time of assistive technology specialists, solutions required the imagination, innovation and creativity of those who knew the person well to design custom, person-centred access methods. Whilst cases of people using their feet and mouth for activities such as painting, typing, sports and other everyday activities may have been documented [1], admired and shared in the media, these are not always considered for an access method for technology and may be bypassed with enthusiastic technologists, keen to showcase and make use of cutting-edge technology, jumping straight to the more complex solutions and overlooking what may be a simpler option.

3. Methods

Case reports were gathered as part of normal clinical practice within a specialised AAC service. Within these case studies, observational assessment was used to identify barriers and strengths which affected the client's outcomes. The authors – as part of an assistive technology specialist service – set out to reflect on the types of solutions selected in these cases. The case reports selected were adults using a chin pointer adapted for double-handed support, a mouth pointer and feet to access an Ipad.

This article and the presentation are a summary of the authors' reflections.

3.1 Ethical statement

Ethical approval is unnecessary for professional interpretation of practice from a collection of case reports. Clients gave permission for the use of anonymous data.

4. Results

The studies highlighted shared themes around assessment and adoption of an access method, in particular raising a comparison of the use of technologically complex versus "no tech" access methods. These demonstrate how the access method to technology can be kept simple but still be as effective as a high tech access method

5. Discussion

Tablet technology has rapidly developed and is currently divided into those devised purely for touchscreen use, those designed keyboard/switches and mouse control/cursor input only, and, those with both. Those devices intended to have input via keyboard and cursor control lend themselves to the assistive adaptations and technological developments made through using switch access and alternative mouse control options, such as eye gaze or head-mouse. However those devices designed from the outset to be operated via direct touch and gestures have had options for alternative access methods added retrospectively but do not inherently suit these methods and lose some of their appeal and the functionality which is built into the design of a touch device.

There are significant clinical impacts in considering these adapted direct access methods as this broadens the choice of access options for these tablets and may allow prolonged use for those with progressive illnesses. These devices have many features, such as, their light weight design which makes for easy mounting to wheelchairs, the ease of buying accessories, the light touch and quick responsive screen and the mainstream price and availability of mainstream support, all of which make them popular for use with the disabled population. However, it is often the access limitations which mean they are not a viable option for people with physical disability. If this could be overcome through innovative access methods such as those that will be presented

then this could significantly impact clinical decision making.

6. Conclusion

From a clinical perspective, clients with physical disability and computer access difficulties all have unique physical presentations and clinical expectations and therefore a single approach cannot be adopted for all. Along with the rest of the population, there are those who enjoy the challenge of exploring complex technological advances and those who prefer the simpler solutions to overcome the challenges they face. In the case studies observed, the clients involved found that the technological solutions explored did not meet their needs and added further complexity to their computer access and that simpler "no tech" access solutions were more effective in overcoming their access difficulties.

With the rapid development of technological solutions for computer or tablet access and the ease of sharing case examples of these uses, the temptation now is to jump straight to the "off the shelf" complex technology. This may be at the expense of overlooking the benefits that may come with the simplicity of those "no tech" methods which have stood the test of time.

7. References

1. Nolan, Christopher, My Left Foot, Secker and Warburg, 1954

Keywords:

Assistive, technology, disability, simplicity, access, clinical decision making

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