Self Advocacy and Digital Story Telling for Children with Special Educational Needs

Keir Willimas
Queen Mary University, London
Mile End Road
London, E1 4ns
keir@eecs.qmul.ac.uk

Dr Tony Stockamn
Queen Mary University, London
Mile End Road
London, E1 4ns
tony.stockman@eecs.qmul.ac.uk

ACM 978-1-XXXX-XXXX-X/XX/XX.

Abstract
An argument for the importance of developing interactive systems that support self-advocacy for children is made with an emphasis on an approach that acknowledges the social realities of a school context and the limitations of technical interventions for social change. The researchers work on Digital Story telling as a means of promoting confidence, creativity and communication for children with special educational needs is then given.

Author Keywords
Creative Technologies; Disability; Self-Advocacy

ACM Classification Keywords
H.5.m [User-Centred Design]

Introduction
Children and young adults with special educational needs have few opportunities to make choices and decisions that effect their lives. This results from their physical and cognitive impairments as well as social attitudes that lead to low expectations of a child's capabilities. The institutional arrangements for children with Special Educational Needs (SEN) if they are to

protect and enable students to develop socially and educationally will also impose constraints.

Ensuring that a child develops the skills and is given opportunities to experience some level of autonomy in their actions and decision-making is an important aim for those working with children with special educational needs in the UK. The development of these skills and providing opportunities to exercise them can be described as supporting a form of self advocacy for children with SEN. The term SEN denotes a wide range of abilities, impairments and life experiences. What constitutes self-advocacy for one student in a SEN school can differ greatly from another.

Understanding how research methods for the design of interactive digital systems and the resulting systems themselves can support children with special educational needs to self-advocate should be a priority for the IDC community. Self-advocacy however is a complex and contingent concept which is routed in both political and social discourses. There is no single tool, method or technical intervention that will ensure the social changes required for all students with special educational needs to self-advocate in a manner that is relevant to their abilities and impairments.

Research that is concerned with developing interactive systems to support children's with SEN should start by understanding the interpersonal dynamics and social realities that exist within a school context, and the limitations of any research intervention within them. That is not to say that technologies cannot offer alternative practices and new opportunities within education but those changes will not come about just through the technical qualities of a technology but through a complex realignment of people, place and institution that it may or may not play a part in. As researchers we can and do have a positive impact on children's lives by working on aspects of complex problems through the design of interactive systems. We must be cautious of claims that are made for the impact of these interventions to bring about significant social change.

Background

Self-Advocacy and Student's with SEN

There are many definitions of what self-advocacy in relation to disabled people. [1], [2], Furney et al. offer the following.

"Self-advocacy is an individual's ability to speak for oneself and one's own needs. Self-advocacy and self-determination are related concepts from the belief system that values the rights of individuals to make choices" [3].

Test et al. develop a conceptual framework for self-advocacy for students with special educational needs through an analyses of a wide range of relevant literature from 1972 to 2005. [4]. They describe self-advocacy as being rooted in a political struggle for the normalisation of and self-determination for, disabled people. They discuss how overprotection by carers and the social perceptions of disabled children as being incapable of making decisions for themselves, leads to children with special educational needs relying on others to articulate their ideas and needs.

In setting out the components of their conceptual framework for self-advocacy - knowledge of self, knowledge of rights, communication, and leadership,

Test et al. unpack the complexity and diversity of opportunities and training that are required in order to support self-advocacy for children with special educational needs. [4]

Participatory methods in IDC

In the past decade a number of approaches have been proposed for conducting technology based design research with children with special educational needs in social and school settings. [5], [6]. This body of literature offers a range of approaches to engaging students in a participatory design process. Recent literature has been concerned with the ways in which children's ideas can be interpreted and brought into the design process [7], [8] and how research methods developed for typically developing children can be adapted for use with children with special educational needs. [9], [10]

A uniting principle in the use of these participatory methods in these approaches for incorporating children as participants is to develop technologies that are suitable, engaging and useful for the differing abilities of children and as a means to democratise the design and research process through the inclusion of participants voices - a form of self-advocacy.

Iverson et al. argue that whilst these values for the use of participatory design methods present in IDC literature are compatible with the aims and principles of Participatory Design (PD), evidence for the impact of PD methods on the democratisation and emancipation of children is lacking. [11]

Approaches to educational technology

Sociologist Neil Selwyn calls for a view of technology in education that starts by considering social implications of designing and introducing technologies into educational contexts and the socio-political struggles that those social changes cause. He maintains there is a failure in research on educational technology to recognize the engrained social, political, cultural and economic problems in the education system, problems that can not be solved purely through technical interventions. [12]

He continues by arguing for research that starts by accepting the formal constraints and 'social facts' of education and the limitations that technical interventions can have in solving them. He contends that by starting with no expectations of what technology can change, a researcher can critically appraise where educational technology may mitigate or indeed have a negative impact on the interactions of learners, teachers and the institution.

Digital Story Telling

The current research of the authors is now detailed. The lead authors research is concerned with the development of design considerations and tools for digital story telling in a special educational needs school. The research has taken an embedded approach – with the lead researcher working within the same UK special educational needs school for the past 2.5 years, conducting art-led qualitative research that has involved observing and working with teachers, students and other support staff to design tools to support digital story telling. Whilst the methods that have been employed involve participation in the design process, the participants have not been involved as co-designers

or research partners. This approach requires a range of highly dialogical and democratic processes including a high level of training for students that was not deemed suitable or attainable with the resources available. It is in the development of digital tools and design considerations for others that the researchers hope to impact on participants confidence and skills.

The research starts by considering the role that story telling has in supporting children with SEN to develop some of the skills necessary to self-advocate. That is developing the skills and opportunities to develop a knowledge of their interests, preferences, skills and creative ideas and share those with others of significance to them.

What has been found through arts-led workshops in a UK SEN schools is that whilst the term story telling covers a huge area of creative and expressive activity, there are particular aspects of story telling that make it useful for working with students with special educational needs.

Story telling potentially offers students and teachers a range of creative and interactive activates. It can be adapted for both individual and group work. It can make use of many different mediums including speaking, writing, drawing, photography and music. This range of mediums allows for activities that can be adapted to the range of strengths, impairments, and needs found in a classroom made up of children with special educational needs.

Story telling is used widely in special educational needs schools. The use of digital media as a resource for these activities is only recently being developed. Designing accessible tools for using digital media in story telling expands the activities and materials available for students and staff and can offer alternative ‘ways of speaking’ for students for who a literary mode of story telling is unsuitable for their abilities - an autistic student or a student with profound and multiple disabilities may find it easier to use a digital image or recorded sound than to create and share their story using voice or signing.

What has become apparent from the work conducted so far is the importance of providing supportive and accessible environments and tools with which students can develop their communication and creative skills and demonstrate those abilities to others. In order to do this student’s must be able to access appropriate learning activities, be supported to take risks and have people that are willing to listen and appreciate their achievements. Developing tools for using digital media in story telling provides a means to extend teachers existing strategies for developing children’s confidence and creative skills.

Acknowledgements

The authors would like to thank Three Ways school in Bath, UK. This work is supported by the Media and Arts Technology Program, an RCUK Doctoral Training Centre in the Digital Economy.

References

[1] B. B. Weimer, M. Cappotelli, and J. DiCamillo, "Self-Advocacy: A Working Proposal for Adolescents with Special Needs," *Intervention in School and Clinic*, vol. 30, no. 1, pp. 47–52, Aug. 1994.

[2] P. Williams, P. Williams, and B. Shoultz, *We can speak for ourselves: self-advocacy by mentally handicapped people*. Indiana University Press, 1984.

[3] K. S. Furney - Enabling Futures Project, *Speak Up for Yourself and Your Future!* Department of Special Education, University of Vermont, 1993.

[4] D. W. Test, C. H. Fowler, W. M. Wood, D. M. Brewer, and S. Eddy, "A Conceptual Framework of Self-Advocacy for Students with Disabilities," *Remedial and Special Education*, vol. 26, no. 1, pp. 43–54, Feb. 2005.

[5] A. Druin, "The role of children in the design of new technology," *Behaviour & Information Technology*, vol. 21, pp. 1–25, 2002.

[6] C. Frauenberger, J. Good, and A. Alcorn, "Challenges, opportunities and future perspectives in including children with disabilities in the design of interactive technology," Proceedings of IDC 2012, New York, NY, USA, 2012, pp. 367–370.

[7] C. Frauenberger, J. Good, W. Keay-Bright, and H. Pain, "Interpreting input from children: a designerly approach," presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, New York, NY, USA, 2012, pp. 2377–2386.

[8] A. J. Hornof, "Designing with children with severe motor impairments," presented at the the 27th SIGCHI Conference, New York, New York, USA, 2009, pp. 2177–2180.

[9] M. L. Guha, A. Druin, and J. A. Fails, "Designing With and for Children With Special Needs: an Inclusionary Model," presented at the IDC 2008, New York, NY, USA, 2008, p. 61-64.

[10] E. Karna, J. Nuutinen, K. Pihlainen-Bednarik, and V. Vellonen, "Designing technologies with children with special needs - Children in the centre (CiC) Framework," Proceedings of *IDC 2010*, pp. 232–235, Aug. 2010.

[11] O. S. Iversen and R. C. Smith, "Scandinavian participatory design: dialogic curation with teenagers," Proceedings of IDC 2012, pp. 1–10.

[12] N. Selwyn, "Editorial: In praise of pessimism—the need for negativity in educational technology," *British Journal of Educational Technology*, vol. 42, no. 5, pp. 713–718, 2011.