Creative use of digital storytelling

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Background

History

Story telling has probably existed in some form since we started as humans to use language.

In contrast, digital storytelling has only been possible in the last decade, a very recent innovation in human history even when compared to writing and print. Even so it is clear that digital technology can be harnessed to open up different forms and contents when storytelling (Kucirkova, Messer, Critten & Harwood, 2014).

By describing the Our Story app, which we have been involved in developing and using in schools, we can outline and what we mean by creative digital story telling, and its possibilities. This free app for smartphones, tablets and iPads (to download search for Our Story 2 in App Store or Google Play) can be used with many different formats of digital storytelling (Kucirkova et al., 2014). In this way, the app does not narrow the choices made by anybody using the app. What they choose to do can be their own ideas and a means of self-expression, especially important for people with communication difficulties. Because of this approach we are less concerned with focusing on a particular type of story (fictional, traditional, descriptive, etc.); instead, we emphasise the flexibility in what is told and how it is told. The aim is for children and adults to express their own voice in a story format that has a ‘professional’ look.
Our Story enables photographs on digital devices to be put into a sequence to make up a story on what we term a storyboard (see Figure 1). The photographs or videos can be existing ones or those specially taken for the story. Once a photograph has been dragged onto the storyboard, then tapping on the picture will allow users to add text, sounds or speech to the photo. In other words, what is being created is a digital picture book with photographs that can have text and sound added to them. A finished story can be played on the device or sent to other people to view with the app; it can also be printed out or sent by email in the form of a purely visual PDF file.

![Figure 1: A screen shot from Our Story, photographs can be dragged onto the storyboard at the bottom to make up a digital picture story. Video recordings can be included.](image)

**Theories and Principles**
The Our Story app draws on theories in education and psychology, especially socio-cultural theory, to provide an easy-to-use interface and activities that can encourage communication and interest in literacy. Important principles are that digital technology can offer new possibilities for learning and education, and in addition, that technology can powerfully engage and motivate (Flewitt, Messer & Kucirkova, 2015). We also wanted to provide an app that could encourage children’s interest in communication and literacy, by making possible the creation of stories that are personalised around children’s own interest and culture. This is an important part of the process of using Our Story as the user can insert their own personal information such as their friends, places they like to go, or things they like to play with or do, which is thought to increase their sense of empowerment and raises self-esteem (Kucirkova & Crumin, 2018).

Work in Practice

In many ways an issue with digital storytelling is that it is very open ended, this means a lot of choices and decisions are needed especially when the storyteller is new to the process, but this also can be an advantage as exploration and modification are possible rather than following a set format of say stories having a beginning, middle and end. Indeed, digital storytelling as we conceive it can be contrasted with a written or even oral story where there is often an established format, to one that is more like acting out a story so that a range of skills and expressions can be brought into the service of communication.
Both stories and narratives can be used in digital storytelling, with stories involving more emphasis on fiction and entertainment, while narratives involve more description, for example a topic like ‘my holiday’ or ‘what I like doing’. Consequently, our interest in digital storytelling covers many different forms, and fundamentally it concerns a sequence of events and images that communicate information that a person wants to provide to others.

Because of this we do not have detailed recommendations about the use of Our Story, rather the app can be adapted to the needs and interests of the users. This flexibility can be off putting, but we believe it also means that digital storytelling can be used to achieve many different aims in many different circumstances. Hopefully, this becomes clearer when we discuss examples of use.

**Outcomes and Evidence**

**Outcomes**

Digital storytelling is a valuable activity in itself, it provides storytellers with a platform to voice issues of concern and interest to them, and the information they provide can be useful to carers and families (Clark & Moss 2011). Additionally, the experience of storytelling develops abilities such as organising information, presenting information in a way to interest the reader, and learning to use different forms of communication. Furthermore, Karmiloff-Smith (1992) suggests that re-representing information in a new format is likely to result in new understandings and insights for the storyteller.
There also is a wealth of evidence that most children are highly motivated to use digital technology (Flewitt et al., 2015), and as a result will engage and be motivated to use digital storytelling. In the examples below, the storytellers were engaged and motivated by the idea of creating a digital story and were very proud of their achievements.

Research studies provide evidence that personalised stories can make new vocabulary more likely to be remembered, and that engaging with creative apps can result in higher levels of speech than other types of app especially those with closed content (Flewitt et al., 2015). Our examples below also resulted in other outcomes. In the first example, there was a meeting with a speech and language therapist before and after the project to identify communication related learning objectives. It was found that each of the children had met their targets through enacting and telling the story. The use of the iPad, especially the functions of the camera and the video that were used in the app, and the attachment of the iPad to the smartboard motivated, excited and enthralled the children. It was a special time in the class when drama, storytelling and technology married together to produce a class story.

Children and families are usually proud of the stories that are produced (Kucirkova et al., 2014). In our second example, both of the male students practised telling their stories with the TA, recognising or reading some of the words in the captions and they communicated their stories to their class. In post-project interviews with the class teacher and the TA, they said that the families appreciated the work completed by the students: “Technology gives a good outcome to their work; it looks like the kind of work completed by children in mainstream schools.” (Critten & Kucirkova, 2015 pp 5).
The story of a class of children

Val (second author) taught in a special school for children with physical and associated learning and communication disabilities. She organised a storytelling activity with nine children aged between seven and nine years in her class, most of whom had some form of communication difficulty and used Alternative and Augmentative Communication (AAC) devices such as a communication book with images (low tech) or an electronic device (high tech).

The final digital stories were digital picture books, each screen consisting of a picture chosen by the storytellers and put in the sequence that made most sense to them. These pictures could be swiped forwards and backwards on the device just like turning pages and could be printed out. Text often was added to the pictures, and sounds, music or speech also could be recorded with each picture.

The class were first introduced to a range of stories such as fairy tales, myths and legends through listening to and looking at books. Val and her support staff decided to write a story as part of a whole class project ‘The Great Outdoors’ and the children chose to tell a story based on a visit to the local spinney which had entranced them. It had been a Magical visit as the spinney was covered in blossoming trees, there was a stream and many insects were flying or crawling around.

All of the children were encouraged to express their ideas about the spinney, so the staff raided the dressing up box, and brought in costumes from home so that the children could dress up and relate to an aspect of the spinney visit that was important to them. Everyone used iPads to take photos and filmed the children dancing or acting a part. The staff were able to attach the iPads to the smartboard in the classroom and show all the photos and video
clips, and a number of the photos that the children particularly liked were printed. From these photos and clips they were able to put together a sequence which was the basis of a story.

Next to the classroom was a sensory room, and everyone decorated it as the spinney. The bubble tubes became the stream, paper flowers made by the children were hung up, and the wind machine provided the breeze that was integral to the story. Photos of the children were taken in their costumes acting the story in the sensory room, see Figure 2. Once the story was completed the children enacted their story in the sensory room, narrated by two of children who were good readers.

*Figure 2: The spider is going to weave his cobwebs around the flowers near to the stream.*

The Story of the Spinney was put together on the app by the children choosing photos of themselves and everyone added captions to tell the story. The story and photographs were
printed out and put together into a booklet for each of the children to take home to show their parents and families.

*The story of individuals: Jimmi and Aaron*

One of the key considerations is to inspire storytellers with ideas or a starting point, e.g. the title or the subject matter. Sometimes it can be extremely difficult to have a starting point which resonates with or motivates people with severe learning difficulties/cultural differences/different life experiences, or people living with dementia. One important consideration is the difficulties with the communication of ideas: either because an individual had little or no speech or because they are unable to understand others. In these circumstances, how can you inspire a story that is meaningful for them?

Two male students (Jimmi, 16 years old and Aaron, 18 years old) both with severe learning difficulties (SLD) attended a transition class in a special school. Both of the students had emigrated from different countries in Africa in challenging circumstances. Both were physically strong and active and were well over six feet tall. They were constantly challenging each other in the class and their teacher felt that if they could express their emotions it would encourage them to communicate positively with each other and with others in the class. An intervention in the form of an action research study was organised with the teacher and a TA and monitored and recorded by Val in which there were five sessions over five weeks each consisting of: aim, progress, and evaluation (Critten & Kucirkova, 2015).
In the initial session the two students were taught to use the camera on the iPad which they both found straightforward, and they enjoyed looking at the photos they had taken. To start them off on their stories, the teacher encouraged them to take photos around the school while separately accompanied by the TA: Aaron chose to take photos of the staff especially the reception staff who greeted him every morning; Jimmi chose to take photos of his favourite classrooms. Each week the teacher and the teaching assistant (TA) helped the students to choose the order of their photos and to choose and type captions for each photo on the app. They were able to build up their stories on the iPad with 1-1 help. They chose their own pictures and the order of the pictures. It was important that the narrative was their own although others might have put the photos in a different order.

**Contexts**

The advantage of the app is that it can be used in a group or a class situation where members of the group can make individual choices about parts of a story, or by individuals who have a personalised story. The Our Story app can also be used with adults who have communication difficulties. We carried out a research project with adults living with dementia who had deteriorating speech and language abilities, and memory loss. In common with the children in our case studies, the adults had difficulties with a starting point to their stories, however once they started a story they found that the process initiated other reminiscences and promoted communication (see Critten and Kucirkova, 2019). In another project digital stories have been created about growing and eating vegetables, these can be downloaded and used with Our Story to encourage healthy eating (https://www.seeandeat.org/ebooks/).

**Issues to consider**
Our approach to digital storytelling grew out of the possibilities offered by the Our Story app and our experiences of using the app with individuals who had a range of abilities and needs.

Some common features of the examples we have provided are:

- Finding a starting point which excites and motivates the storyteller/s,
- Teaching the storyteller to become familiar with the functions of the technology so that they have more agency,
- Encouraging the storyteller/s to review and amend their work,
- Encouraging the stories to be shown to friends and family.

The main limitations for the children and adults we have worked with came if they were unfamiliar with digital technology and both the use of iPads and the Our Story app had to be taught to them. This meant that they needed one-to-one help to enable the stories to be produced.

Be aware that families may need support when taking part in projects. Jimmi and Aaron’s teacher did a home visit to ensure they understood the research and to gain their consent.

**Try it Yourself**

**Top tips**

- Gradually build up the technical skills of the children/adults to sequence their own photographs. If needed show how to make a story, but make sure you scaffold, and give help when it is needed. Adapt to the pace of your storytellers. Also, support the
storyteller’s motivation and inspire them to express their own ideas by making the experience fun.

- Remember that the content of the stories can be very flexible - photos of the storyteller (often very popular), drawings, screenshots from the internet, photographs of pictures from books or magazines (remember about copyright), photos of toys that are characters in a story, and videos. In this way storytellers can choose aspects of their own culture. Storytellers often like to hear their own voice or make sounds related to the story.

- Encourage the children/adults to communicate their stories with others by: showing on the digital device; using a printed copy, or by emailing the story to others.

**Training and Resources**

Make sure you are reasonably confident about using any digital story making app. For Our Story there are help screens when using the app, and general advice about using the app (tap on Get Starting on the opening Page of the app, e.g., the delete button can be disabled so there is little risk of losing a story).

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References


Critten, Valerie, and Natalia Kucirkova. "‘It Brings it all Back, all those Good Times; it Makes Me Go Close to Tears’. Creating Digital Personalised Stories with People who have Dementia." Dementia 18, no. 3 (2019): 864-881. https://doi.org/10.1177%2F1471301217691162


Notes on Contributors

David Messer is a developmental psychologist who often works in multi-disciplinary research teams. His current research concerns communication, language and literacy in children and young people with a range of disabilities. He has been interested in learning, education and technology since the 1980s when BBC computers were introduced into primary schools. He has written or edited 12 books and published widely. Currently he is involved in several projects that concern technology and disability. David is Emeritus Professor at the Open University and Visiting Professor at City, University of London. At the Open University he was an academic advisor to the BBC series ‘Child of Our Time’.

Valerie Critten was an IT teacher and coordinator at a special school for children with physical and learning disabilities. Since graduating with an EdD from the Open University she has published research into children and young people with physical disabilities, with learning and communication disabilities, and people living with dementia. Latest projects have included researching into programming and coding with preschool children.