New Ways to Tell my Story
Evaluation of a Digital Storytelling Workshop for Older Adults

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Abstract: This study discusses the design, development, and implementation of a digital storytelling workshop for older adults. The paper reports on the post-evaluation of three iterations of the workshop in three different centres. Adjustments were made for the second iteration and these are discussed. The facilitation and a socially supportive environment were important to digital learning. Participants reported increased skills in digital storytelling as well as other computer and internet skills. Finally, it was found that participants enjoyed the contribution of others and sharing of stories, creative expression through learning story creation, and facilitation. The main difficulty reported by participants was related to time restrictions.

1 INTRODUCTION

The aging population is increasing in numbers, particularly in proportion to other age demographics. It is estimated that 30 % of the population will be over 60 years by the year 2050 (WHO, 2012). This has led to increased discourse on improving quality of life to live a happy and healthy lifespan. For example, the concept of 'active aging' promoted by the World Health Organization (2002) has been described as follows. "Active ageing is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age." (WHO, 2002). Improving older adults' quality of life can incorporate a vast number of aspects and can be attained in many ways depending on the individual. It requires a holistic approach, incorporating not only physical and cognitive health, but also aspects that contribute to well-being such as creativity, social engagement, and lifelong learning (Hanna, Noelker, and Bienvenu, 2015).

Technology and communication are tools which have the opportunity to enhance the lives of older adults (Mitzner et al., 2010). Increasing digital literacy may improve quality of life in a number of ways, including increased socialization and information access (Baecker, Moffatt, and Massimi, 2012). Technology also offers the opportunity for creative expression and sharing facilities. One technology creation that could be beneficial for older adults is digital storytelling. Digital storytelling could encourage older adults to share their stories, become digital producers, express creativity, and to improve digital literacy. Furthermore, digital storytelling can also serve as a learning experience where participants are both diving into traditional structures of writing a story (such as the story arc), but also learning technology (Czarnecki, 2009).

Story and narrative are powerful cultural tools and are traditional ways to share knowledge. They serve as one of our main tools of identity, in that we perceive our lives as embedded in narratives and our memories are wrapped around these stories (Bruner, 2004). Thus, the combination of technology and autobiographical narrative could offer many opportunities for older adults to express themselves in new and different ways.

The purpose of the current paper and presentation is to describe the design of a digital storytelling workshop for older adults and present the initial evaluation of the program. The paper provides an overview of digital storytelling and its various uses, discusses learning for older adults, then examines the design and implementation of the program. Initial findings include participant perceptions about the workshop, learning gains, rewarding aspects, and areas for improvement. This study contributes to both research on the use of digital storytelling and the design of workshops for older adult cohorts.

2 BACKGROUND

2.1 Digital Storytelling

A digital story is simply a story that utilizes multimedia in its expression. Leslie Rule (2010, p. 56) describes it as "the modern expression of the ancient art of storytelling. Digital stories derive their power by weaving images, music, narrative and voice together, thereby giving deep dimension and vivid color to characters, situations, experiences, and insights." The process involves creating a script and bringing it to life through technological means. There are few rules on what can and can't be used in its creation; however, it often uses voice, images, sound, and music. Furthermore, participants do not just simply produce their stories but also play the role of editor (Meadows, 2003). All choices and decisions are made by the story makers, creating an ambience of their own self-expression within the story presentation.

Digital storytelling arose as a new art form in the 1980's. A large part of the drive for its popularity was through the founding of the Center for Digital Storytelling (CDS) by Joe Lambert and Dana Atcheley (Robin, 2008). Over the next couple of decades, the art of digital storytelling slowly gained momentum in the United States. In the early 2000s, Daniel Meadows and Cardiff University, in partnership with BBC, brought digital storytelling to England (Meadows, 2003). The art of digital storytelling has now spread throughout many countries and for various purposes.

Digital storytelling has not only gained popularity as an artistic expression but has been touted as a tool with a diversity of benefits. For example, digital storytelling has recently been the subject of research in education (Robin, 2008), to create a voice or participatory media (Burgess, 2006), as a public historical archive (Klaebe et al., 2007), and as a means of creating empathy, understanding and giving voice to marginalized cultures (Sawhney, 2009).

Much of the digital storytelling research has centred around its use in education, whether K-12, higher education, or professional development. In the K-12 system, it has been praised as a tool for increasing literacy and digital literacy skills (Behmer, Shmidt, and Schmidt, 2006). However, the learning is not just limited to the digital aspects, but also incorporates traditional story writing structures (Czarnecki, 2009). Furthermore, digital storytelling has also gained use in its ability to promote reflective practice in various fields such as pre-service teachers (Tendero, 2006) and nursing (Stacey and Hardy,

2011).

The reflective nature of stories has been noted in other areas. Bruner (2004) suggests that one cannot tell an autobiographical story without having some level of reflection. For example, Stacey and Hardy (2011) report on a study where newly registered nurses were provided digital storytelling workshops to help with adjustment. They created stories on recent distressing events. The process was found by many of the participants to be an opportunity to reflect on difficult experiences and created time to process the event. It also provided a venue for expressing themselves openly, although that also created concern about how they would appear to others. In another phase of the study the stories were shared with final year nurses, who appreciated and recognized the authenticity of the digital storyteller's experience. The digital stories created an environment where the viewers could reflect on their own fears and empathize with the story teller. This study emphasizes the power of stories for both teller and viewer.

Other studies have also found that digital stories could be used to increase empathy and understanding of patients and disadvantaged individuals (Christiansen, 2011; Stenhouse et al., 2013). The digital stories of patients have been used in nursing education to create a patient-centered approach (Christiansen, 2011). The creation of the digital stories do not simply help the medical practitioner, but the process can be useful to patients. A study by Stenhouse, Tait, Hardy, and Sumner (2013) of seven adults with early stage dementia suggested that the act of creating a digital story helped with the patient's ability to express themselves and supported a sense of identity. Furthermore, over the four-day workshop, participants became more social.

Besides medical education, there has been a cross over between using digital stories as a learning tool and a community tool through projects where students are working with disadvantaged persons to create stories (Militello and Guajardo, 2013) or the stories are used specifically to educate. For example, *Silence Speaks* gives those individuals who may have experienced violations of human rights an opportunity to express themselves. In turn, these narratives are then shared globally in strategic places to try to promote human rights, equality and health (McLellan, 2007).

Digital stories are a way for ordinary people to produce and share their own stories (Burgess, 2006). Thus, digital storytelling is a way of amplifying the voices of ordinary people (Burgess, 2006). In the context of older adults, it could allow for a new

avenue to tell their story and archive their history. It is a way of communicating and making oneself heard, empathizing with others, and forming meaning through self-reflection.

There is limited research on using digital stories with older adults. However, a few have started to appear. For example, a study by Loe (2013) evaluated a course on aging that involved students going to local senior communities and working with elders to produce a digital story. They were paired together, elder storyteller and student facilitator, to produce a digital life story. After completion, the digital stories were presented to the community. This study reported positive results, including building a reciprocal relationship between the pairs, a reviewing and reflection upon the future and past, and reducing ageism. This was likely due to the intergenerational nature of the study and the story process (Loe, 2013).

When given the chance, older adults seem to embrace the opportunity to be content producers versus simply consumers, as was seen in a study of the program Enmesh (Waycott et al., 2013). Participants could share photos, and comment, tell stories and discuss with other older adults. Although not specifically a digital story in the way we are considering it here, the study emphasized the social benefit and creative expression older adults gained through sharing photos and stories.

2.2 Older Adults and Learning

Lifelong learning and cognitive engagement have been discussed in the research community as valuable elements that can contribute to quality of life (e.g., Jenkins and Mostafa, 2015). Older adults have different reasons for continued learning than younger cohorts. In many instances, learning for the older adult is a personal choice versus formal learning for a degree or work; and therefore, requires interest and relevance to the older adult. It has been found that there are two main motivations for continued learning by the older adult, interest in the content and social factors (Kim and Merriam, 2004). Furthermore, Jenkins and Mostafa (2015) conducted a study examining data from a longitudinal study that compared participants' subjective well-being with their learning habits and found a significant relationship between high levels of reported well-being and learning. However, this only applied to informal learning that included arts groups and night classes.

The informal and social nature of learning that seems to be valuable for older adults may benefit from constructivist design considerations, such that

the program is learner centred, and learners have the opportunity for collaboration and sharing of different perspectives. Furthermore, the knowledge and learning is part of the practice of performing an activity (Land, Hannafin, and Oliver, 2012). In the current workshop design, all learning is embedded in the practice of creating a digital story.

Two other aspects specifically considered in the current design were scaffolds and planning for group sharing and knowledge construction. Participant's computer experience was expected to vary, and their zones of proximal development would also vary. The zone of proximal development is the level to which an individual can attain learning goals with the guidance of another, either a peer or facilitator, but the task may be too difficult to achieve on their own (Vygotsky, 1978). Thus, to reach certain goals, scaffolding (support for learners) is needed such as through peers, artefacts, or facilitators. Scaffolds are support designed to help and guide the learner towards an achievement (Hannafin et al., 1999). In the current workshop design, the scaffolds had to be flexible and multiple to account for the different skill levels coming into the program.

Another aspect that may be valuable for educational programs is a collaborative social environment where participants can share experiences and understanding. This allows for multiple perspectives for reflective practice and to negotiate meaning (Land and Hannafin, 2002). Furthermore, previous studies have found that older adults find leisure activities more rewarding when they are social (Mannell and Kleiber, 1997; Kim and Merriam, 2004). In the current workshop design, all learning occurs within a social and sharing environment.

3 PROGRAM DESIGN

The design was inspired by the work of the Center for Digital Storytelling (now called StoryCenter) and its Digital Storytelling Cookbook (Lambert, 2010), creative writing sharing techniques, and film techniques. It was designed to create as many shared experiences as possible. However, each participant worked on their own digital story. The social opportunities became more limited as the participants moved to the computers, where they were divided by a screen. However, a collaborative environment was still maintained.

The program was designed with two specific sections: story creation and digital creation. Many participants had limited story writing experience. A

digital story is not composed of individual parts which are combined but is a unified piece, so it was important that participants had a full story to work with. This also facilitated a writing group environment where participants could get to know each other through sharing life narratives before moving to the computer. However, for the second iteration we implemented an introduction to the software, which provided understanding of the digital story process as a whole. This helped to provide a richer understanding of the length of the story, number of pictures and other aspects that differentiate digital stories from written stories.

3.1 Further Design Consideration

Software Choice: During the design phase, we also underwent a difficult decision on the software tools. We wanted software that would be easily accessible, simple, could be accessed from multiple locations, had publishing options, and would suit our demographic and program. The software also needed to meet the different levels of computer skill and knowledge of the participants. Thus, we wanted a system that had some built in scaffolding to provide users with 'how to use the program' information readily available.

We reviewed the existing software programs that were available in the summer of 2014. Of these, most were aimed at students and often used to create 'comic book' stories. Of our top three choices, MS Photostory, PhotoStage, and WeVideo, we found that MS Photostory was no longer supported and Photostage required installation so would appear 'different' on MACs and PCs. We also consulted researchers and programs that had experience with digital storytelling. After our review we chose a program called WeVideo.

WeVideo was recommended by Bernard Robin (University of Houston) and is a browser-based software application that does not change, regardless of hardware used. Further, WeVideo has been adopted by StoryCentre (formerly the Center for Digital Storytelling). The program has a full range of options and tools that can be used to create digital stories, instructional videos, is online so can be accessed from any computer, and produces a digital story with good quality s MPEG-4 multi-media file that can be viewed with most digital media players.

Technical Experience: We had no required technical experience since we wanted to make it accessible to all. As expected, the participants ranged from those who worked with computers in their careers, to those

who had never used one. For this reason, a ratio of at least one facilitator to five participants was used.

Time Constraints: The initial workshops were based on two hour sessions, occurring once a week, for eight weeks. These time constraints were due to venue requirements. In our initial design we realized this could be a limiting factor, but it was design restriction that we had to work with. Some venues allowed the workshop to be extended to 10 weeks. Additionally, workshop participants were expected to do some work at home.

Story Style: Within digital storytelling there are many different forms, sometimes more of a life history approach which is a retelling of a person's life or it can be a complete short story with a beginning, middle, and end which is seen more in the workshops of the Center for Digital Storytelling. In this program we chose the latter. Participants were asked to reflect on an event or moment in their lives that stood out. We also incorporated reflective journals to help develop the theme, emotions, and personal understanding of the story. Many of the stories did not take place over one incident, although some did, but a specific idea or lessons learned were incorporated. For example, one participant wrote about how she was a dancer, until her body failed in later years due to arthritis. She had to learn to accept her body and found new ways to dance.

3.2 Program

The first iteration of the design took place in September of 2014. For the second and third iterations, some changes were made based on the feedback from participants and observations by facilitators. Two specific changes that were made were familiarizing participants with a more comprehensive view of the process by introducing participants to the digital storytelling software earlier and having extra hours, tutorials, with facilitators outside of the workshop.

The first adjustment was to have an earlier session in the program focused on creating a digital story in the chosen software. The participants were given photos, sound, and other parts of a digital story and shown how to upload these. They were also given a few mini lessons and encouraged to play around with the software.

From the initial feedback we also noted that participants were finding it difficult to finish their stories given the amount of time. Our first adjustment was for a facilitator to meet with participants outside of the workshop, a one-on-one learning sessions.

However, this was not sustainable so tutorial groups were formed with a set time for facilitators to work with more than one participant. Below is an example of the program.

Final Outline of Weekly/Workshop
Week 1 – Introduction to the research study and digital storytelling. Learners our introduced to the research study and to what digital storytelling is. They will start to think about the stories of their life.

Week 2 – Intro to WeVideo, practice creating
Learners are introduced to the digital storytelling software. They are given photos, music, a voice clip and shown how to upload these, and lay them out. This also gives them an opportunity to think about how many photos they may need.

Week 3 – Writing a Script (draft)
Learners will begin to explore the art of story writing and think about the story they may want to tell. Activities are used to help them come up with ideas. Sharing of ideas.

Week 4 – Sharing Your Story and Editing
Learners bring their story to class and get an opportunity to workshop it with other learners and the facilitator getting feedback.

Week 5 –Images and Storyboarding
Learners bring their edited script and storyboard it, figuring out the photos to go with each section.

Week 6 – Voice, Sound, Music; Record the Narrative
Learners explore ideas of voice, sound and music, and start recording their stories. Learners upload images, recording, etc… to Wevideo and start to put it together.

Week 7 – Record and Edit in WeVideo
Learners continue putting the pieces together.

Week 8/9/10 – Record, Edit, Final Touches, Publish.
Learners continue editing and share their stories.

The viewing of the participants' digital stories occurred in class; however, a special event was also held where participants from all of the workshops had an opportunity to showcase their work to family, friends, and others in the community.

4 METHOD

The workshops took place in the greater Vancouver area, Canada. The research grant is a partnership grant where the researchers worked with community organizations to host the digital storytelling

workshops for older adults. Participants were recruited through advertisement with the partnership facilities. The digital storytelling workshops ran once a week for two hours, for 8-10 weeks depending upon the centre and time restrictions. There have been three iterations of the program so far consisting of 7 groups of 4-10 participants.

Participants: Participants were older adults aged over 55 who signed up for the digital storytelling workshop. A total of 40 participants, from all three initial iterations of the workshop, filled out the final surveys.

Instrumentation: Participants were given an anonymous survey at the end of the workshop evaluating the program. A five point scale was used to rate various aspects of the workshop and to rate perceptions of digital skills improvement. There were also open ended questions asking the participants what they liked best and what could have been improvement.

5 RESULTS

The questions on the evaluation forms were analysed for descriptive measures using IBM SPSS Statistics V22, a statistical software package. For the open-ended questions, two researchers coded the data and formed categories, continuously checking on their agreement.

5.1 Workshop Experience

The workshop was evaluated on facilitation, process, and software used. All participants were able to use the software; however, varying levels of assistance were required. Some participants required more hands-on help from facilitators. Most of the participants completed their digital stories during the course of the workshop and were given the opportunity to share their work during the final session.

Overall most participants rated the workshop as being good or very good as can be observed in Table 1. The facilitation was rated as being very good by most participants, both in regard to communication (70%) and helpfulness (82.5%). Approximately 95% of participants felt the process used was good to very good. The software used was also rated high with close to 87 % of participants rating it good to very good.

Table 1: Workshop evaluation.

Question	Categories	Frequency (n)	Percent (%)
Facilitator's ability to communicate	Very Poor	0	0
	Poor	0	0
	Fair	3	7.5
	Good	9	22.5
	Very Good	28	70
	Total	40	100.0
Facilitator's helpfulness	Very Poor	0	0
	Poor	0	0
	Fair	1	2.5
	Good	6	15
	Very Good	33	82.5
	Total	40	100.0
Process used to create digital story	Very Poor	0	0
	Poor	1	2.6
	Fair	1	2.6
	Good	16	41
	Very Good	21	53.8
	Total	39	100.0
Software used to create digital story	Very Poor	0	0
	Poor	2	4.3
	Fair	3	7.9
	Good	18	47.4
	Very Good	15	39.5
	Total	39	100.0

Almost two-thirds of participants found the workshop just right (see Table 2). However, 28.2% of participants found it difficult, while a few participants found it easy and one found it very difficult. Overall this is a good outcome and would suggest the workshop was accessible to most participants.

Table 2: Difficulty level of workshop.

Question	Categories	Frequency (n)	Percent (%)
I found the workshop	Very Easy	0	0
	Easy	3	7.7
	Just right	24	61.5
	Difficult	11	28.2
	Very difficult	1	2.6
	Total	39	100.0

5.2 Skill Improvement

Participants were asked whether they thought their skills improved in specific digital literacies and digital storytelling skills.

Table 3: Skill improvement.

Did skills improve:	Categories	Frequency (n)	Percent (%)
Using a computer	Not at all	4	10.3
	Slightly	11	28.2
	Moderately	13	33.3
	Very	7	17.9
	Extremely	4	10.3
	Total	38	100.0
Using computer software	Not at all	3	7.9
	Slightly	10	26.3
	Moderately	16	42.1
	Very	7	18.4
	Extremely	2	5.3
	Total	40	100.0
Using the internet	Not at all	11	28.2
	Slightly	8	20.5
	Moderately	15	38.5
	Very	3	7.7
	Extremely	2	5.1
	Total	40	100.0

Approximately two-thirds of participants reported that they improved on computer and computer software skills either slightly or moderately (see Table 3). A small percentage reported no improvement, while almost one-quarter of participants reported that their computer and computer software skills were very or extremely improved over the course of the workshop. Just over one-quarter of participants reported no improvement of their internet skills, with one-fifth reporting a slight improvement. However a large number of participants (38.5%) reported moderate improvement in their internet skills.

Table 4: Skill creating a digital story.

Did skills improve:	Categories	Frequency (n)	Percent (%)
Creating a digital story	Not at all	0	0
	Slightly	1	2.5
	Moderately	10	25
	Very	20	50
	Extremely	9	27.5
	Total	40	100.0

As might be expected, the skill with the most improvement reported was digital storytelling (Table 4). All participants reported some increase, with over three-quarters reporting their skills were very or extremely improved.

5.3 Benefits and Improvements

The participants were asked open-ended questions about what they liked best and what they would improve.

5.3.1 What Participants Liked Best

Three major themes emerged regarding what participants liked most about the workshop. These are sharing/interactions with others, digital story creation/learning, and facilitation.

Shared Social Experience
One major theme that emerged was the shared experience with other participants and what that brought to the program. The environment allowed for participants to give each other feedback, share stories, and socialize. This came out as an important aspect of participants' experience. Below is an example of some of the comments.

"The fellowship/moral support of fellow participants"

"Sharing the works of the other participants."

"Interaction with other participants"

"Story sharing"

"Supporting each other"

These examples of some of the comments shows the comradery and appreciation participants had of the shared learning experience.

Expression through Learning Story Creation
Some participants revealed that what they liked best was learning something new and creating their own story. As one participant wrote:

"I liked learning the software and the process of putting the pieces together."

There were also comments that showed the excitement of learning how to turn pictures into living stories as expressed by these two participants

"Turning still photographs into a live picture, with sound and life. And also learning to building a story"

"Able to tell and express the story of a picture with emotions."

And as one participant wrote the best aspect was *"Finding new ways to tell my story"* and another participant simply wrote that they *"learned or discovered I can write stories."*

The story creation could even be very empowering as expressed by a participant who wrote, *"The very organized and helpful approach to build an effective and powerful story - it is a process that gives one a bit more self-respect!"*

Helpful Facilitation
Another aspect that came up for many of the participants was facilitation. As outlined earlier the program involved a high level of facilitation both during the workshop, and outside the workshop when needed. This was appreciated by participants and can be observed by comments such as,

"Friendly, kind assistance of the mentors"

"Approachable, supportive facilitators"

"Got opportunity to ask questions and get assistance when I got stuck"

"The facilitators teaching us something new"

5.3.2 Improvements

The major theme that appeared for needing improvements was related to time, or not enough of it. These did not encompass one aspect of the program but different participants felt they needed more time on different areas, as seen by these participant comments.

"More editing time"

"We could have had more time to do research and work more on the timeline."

"A lengthier course to help people like me who are not too computer savvy to grasp the technological details"

"Needed a lot more time - in developing the story and in the lab."

The need for time was the only consistent theme that arose. This is understandable as it was a concern from the start. We described how we attempted to adjust for this through tutorials. Even with the extra facilitation sessions, the later groups still had time come up as something they would like more of as one person wrote "longer training".

6 DISCUSSION

Overall participants were satisfied with the digital storytelling process and workshop. They reported gaining skills in digital storytelling which may contribute to lifelong learning. Hopefully, these new skills will encourage some of the participants to continue their exploration of digital storytelling. Furthermore, many participants also suggested that the workshop improved their digital skills. The learning of technology was embedded in the program, due to its necessity, and was an added benefit. It was the authentic practice of creating a digital story with technology in which the learning occurred.

The program included a high level of scaffolding, particularly by guidance from facilitators, since some participants needed the extra help and time to finish creating their stories. As was reported by participants, this was appreciated and was seen as one of the aspects that was most favourable. However, the sustainability of having many one-on-one sessions is not realistic in many community programs. Time limitations was one of the main factors affecting the need for extra sessions.

Although, for many, there was a high level of guidance, participants managed to create their own individual stories with the freedom to express themselves and their life narrative in new and meaningful ways. Moreover, they became digital producers and not simply consumers producing artifacts that could be distributed among family, friends, or whomever they wished. Similar to the work of Waycott et al. (2013) we found that they were eager producers of digital content and found the program rewarding as noted by the evaluation.

In regards to the level of difficulty of the program, participants mainly marked that the workshop was *just right* or *a little difficult*. This places the workshop design within most learners' zone of proximal development, yet required the program to have a fair amount of scaffolding built in. The one on one time with facilitators allowed for the wide range of different digital skill levels.

What the older participants liked best about the program seemed a strong indication of what made the learning a valuable experience for them. The opportunity for shared experience, creative expression, and helpful facilitation appeared to be what made the program successful for the participants. Shared experience has come up in previous work on leisure activities and learning as being important for older adults (Kim and Merriam, 2004). Similar to the nurses in Stacey and Hardy (2011), the older adults seemed to appreciate learning a new way to express themselves and having the opportunity to do so.

6.1 Limitations and Future Directions

This study was limited by the fact that it was a self-reported survey. Thus, participants claimed to have learned something, but this was not specifically tested. The fact that they created a digital story would suggest they at least learned how to do this, but for increased digital literacy skills this is dependent on self-assessment. This could be improved by more rigorous assessment methods.

However, this may not be critical as lifelong learning is more related to feeling engaged and enjoying the experience. Furthermore, at this point the digital stories created have not been analysed. This will be done soon may provide a more thorough understanding. The workshop also had a high level of support with a least two facilitators per group of up to 10 participants, it is difficult to determine what the success would be with less individual support provided. One area that would be interesting to follow up is in developing an intergenerational program where youth and older adults can create together. This may provide added intergenerational aspects and help with the issue of limited time. Another possibility is that designs could be longer or broken into two sections. Thus, participants could learn storytelling techniques and development in one workshop series, and digital storytelling in another workshop series.

7 CONCLUSIONS

In conclusion, our study addressed the design and evaluation of a digital storytelling workshop for older adults. The insights gained from the feedback allows for further understanding into approaches to workshop design for older adults. Overall the positive response of the participants offered some evidence that older adults find creating their own digital stories a worthwhile experience. Through reflecting on past life narratives participants were able create an artefact to share a moment in time with others. The reported increase in digital literacy were also a benefit and may help as a guide for future programs.

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