

# **USING DIGITAL STORYTELLING AS AN ASSESSMENT INSTRUMENT: PRELIMINARY FINDINGS AT AN ONLINE UNIVERSITY**

**Jeremy B. Williams and Kanishka Bedi**



# Using Digital Storytelling as an Assessment Instrument: Preliminary Findings at an Online University

Jeremy B. Williams and Kanishka Bedi

Universitas 21Global

[jwilliams@u21global.edu.sg](mailto:jwilliams@u21global.edu.sg)

[kbedi@u21global.edu.sg](mailto:kbedi@u21global.edu.sg)

## Introduction

'Digital Storytelling' is a term often used to refer to a number of different types of digital narrative including web-based stories, hypertexts, videoblogs and computer games. While the definition of digital storytelling is still evolving, this emergent form of creative work has found an outlet in a wide variety of different domains ranging from community social history, to cookbooks, to the classroom. It is the latter domain that provides the focus for this paper, specifically the online classroom in the graduate business school environment.

The authors hypothesise that as – in the majority of societies – people are 'hard wired' both to tell and to listen to stories from a very young age and, significantly, to *remember* stories, the scope for deep learning using this particular pedagogical tool is considerable. The more conservative forces within business schools may not be persuaded by this idea but – whether they are or not – the fact remains that, in the knowledge economy, digital technologies have become the *modus operandi* for business communication. In this sense, a business school curriculum with a heavy bias towards text-based, essay-style assignments might be adjudged out-of-step with the times. A supplementary hypothesis, therefore, is that digital storytelling also represents a highly authentic form of assessment (Herrington et al. 2003), in that the digital storytelling format improves presentation skills which are highly sought in the business world today.

Much of the work on digital storytelling in the education sphere has concentrated on the primary and secondary sectors. With some notable exceptions (e.g. Paull 2002), the literature on digital storytelling in the tertiary/adult education sector is quite sparse. Research on the use of digital storytelling in business schools, meanwhile, appears non-existent, hence the motivation for this study.

## Methodology

In early 2006, work began at Universitas 21 Global (U21Global) – a completely online university – to investigate the extent to which digital storytelling might be integrated into the MBA course. In keeping with the work of Paull (2002), the initial focus was how digital stories might help to create a sense of personal and social agency and empowerment within students; characteristics that appeared to be in short supply within U21Global's virtual distance learners. This involved training faculty in the art of digital story creation in order to better introduce themselves to their students and, thereafter, have students reciprocate by producing their own stories (see Williams, Bedi and Goldberg, 2006). Current work-in-progress has concentrated on the use of digital storytelling as the vehicle for the submission of assignments.

In late 2006, an experiment was conducted with an Operations Management class where participants were required to submit a team assignment and a team-based final project in digital story format using Microsoft PowerPoint. As a standard inclusion in the Microsoft Office suite, this application is used extensively by faculty and students in universities the world over, but the use of images, animation and voice is quite rare in the traditional business school setting; there being a greater tendency to rely on text. This break with tradition enables the student to become more *actively* involved in their learning and not simply rehash and regurgitate text cut-and-pasted from various electronic resources. Importantly, it permits the student to *construct* a more authentic and meaningful learning context for themselves in which cases are brought to life through real-world images (or through images used as metaphor), and through the use of their own narrative rather than somebody else's for whom they may have little real empathy.

At the end of the course, the students were invited to take part in an 18-question semi-structured survey covering a number of different aspects of digital storytelling.

## Findings of the 2006 pilot study

While the results of the experiment are only preliminary at this stage (given it was a pilot study), positive feedback from 24 respondents to the questionnaire (a response rate of 69% in a class of 35) suggests that listening to and telling 'true stories' was a compelling and engaging experience, providing an opportunity for 'transformative reflection' (Lambert 2000). By including multimedia, learners were able to build upon the fundamentals, presenting content in an easy-to-absorb and compelling way. In terms of team assignments students learned to become more effective actors in collaborative work environments, and felt encouraged to communicate meaning on multiple levels. Importantly, this approach offered an entertaining way of promoting team awareness and coherence in virtual teams. It also provided an avenue for the students in this class to express their creativity. Some of them came up with their own unique methods of creating digital

stories using Flash and Camtasia, rather than use the narrated PowerPoint model suggested by faculty. On the minus side, not all the respondents were equally enamoured by the digital storytelling experience, and there would appear to be a number of obstacles in the path of a programme-wide roll out of digital storytelling as a formal assessment instrument.

The moderate success of digital storytelling as an assessment tool in this pilot study has been followed up with further experimentation in other MBA classes during early 2007, with a view to addressing some of the problems identified by the detractors. One important improvement has been to provide additional scaffolds for learners who are enthusiastic digital storytellers, but feel challenged by the *process* of compiling a digital story. In the 2006 pilot study, students were provided with a digital story created by faculty entitled “Creating Digital Stories”, the aim of which was to provide some basic instructions and to reduce the ‘learning curve’ for those less adept at using PowerPoint. It was also thought sufficient for faculty to act as role model for the students in the creation of their personal introduction in digital storytelling format, and that this format serve as a template (or at least a guide) for the assignments that their students would submit later that term. In summary, an assumption was made that, as students at an online university, learners would possess sufficient ‘tech-savviness’ to put together a narrated PowerPoint without too much difficulty. This assumption was flawed on two counts; (i) that all students would have sufficient technical expertise, and (ii) that – technical considerations aside – the principles of digital storytelling (as they were articulated in the context of a personal introduction) would be seamlessly applied in the context of an assignment for formal assessment purposes. Thus, in the 2007 study, learners were provided with two additional scaffolds; an exemplar digital story team assignment from a previous class, and a “Digital Story FAQ” presentation (in digital story format) created by faculty to specifically address the common technical problems encountered and the key principles one might adhere to in composing a digital story for assessment purposes.

### **Findings of 2007 follow-up study and comparative analysis**

The 2007 survey tool (see Appendix) was the same as that used in the 2006 pilot study with a few modifications. Two questions were added to take account of the additional scaffolds described above, and two questions were omitted; one focusing on the inclusion of digital stories in discussion board postings, a practice that was discontinued after the pilot project; and one question referring to the use of the digital story format in the students’ Final Project (a practice that was also discontinued). The same Operations Management course was the vehicle for the follow-up study and in a class of 29 students there were 22 responses (a response rate of 76%).

In both the 2006 and 2007 surveys the download and viewing of the digital story introduction of the professor was considered a straightforward process by the majority of students. Furthermore, all either agreed or strongly agreed that the professor’s digital story helped them to get to know him/ her better

compared to the usual text-based introduction. In the 2006 survey, the majority of the students felt that the professor's digital story 'improved the learning environment' for them – the 2007 result being slightly less resounding – the comments of students suggesting that the learning environment does tend to be very impersonal, so the digital story introduction helped them to make a connection with the professor. Interestingly, however, the quantitative data did not reflect the sentiment contained within the qualitative data, as in both the surveys, only 40% of the students felt that digital storytelling should be a feature of all U21Global subjects for introductions by professors and students; a large majority remaining neutral.

On the question of whether the opportunity to submit the Team Assignment in digital storytelling format was a good idea, the 2006 survey received a more favourable response from the students compared to the 2007 survey. This was a disappointing result, especially given students had commented in response to the 2006 survey that it would be better if the digital story format were restricted to only the Team Assignment, rather than both the Team Assignment and the Final Project. With hindsight, however, it is probably not appropriate to compare the responses to this question as the exposure to digital storytelling of each class is different. It could be, for example, that the responses of the 2007 class would have been different had they also submitted their Final Projects in digital story format, or that the 2006 class would have thought differently had they only done the Team Assignment as a digital story. Whichever way one interprets this result, there would appear to be sufficient doubt over the veracity of the questionnaire in this instance, for this issue to warrant further study. This is especially the case when one considers the qualitative data in relation to the use of the digital story format for assignment submission which corroborate its usefulness in terms of the skill development it facilitates; for example:

*“This compensated for the missing opportunity for U21 students to do oral presentation which normally happens in other MBA courses.”*

*“This has also helped us to summarize our report and be more creative.”*

*“Really got our creative juices flowing.”*

In the part of the survey instrument devoted to understanding the experiences of students in creating the digital story assignment, a majority in both surveys responded that deciding what information to include was a straightforward process. So, too, was the process for finding relevant images from the Web for compilation of the digital story. However, while recording the narration was straightforward for 2007 class (more than 82% students agreeing or strongly agreeing), this was not the case for the 2006 class where only 37% agreed or strongly agreed. This is a pleasing result as it would suggest that the additional scaffolding included for the 2007 class paid off; the “Digital Story FAQs” presentation and the sample digital story assignment serving to increase the comfort level for students when recording their narrations. Even so, students' comments still indicate that this is a difficult skill to acquire:

*"For students who are familiar with presentation in ppt and who are knowledgeable of the information required for presentation, it is quite a breeze. However, recording seemed to "magnify" mistakes and "ah.ah.eh.eh", and for a perfectionist, it can take quite a bit of efforts in re-recording! But great training for presentation skills!"*

*"It did take a long time for the initial recording as well as getting the timing correct. I did experience that it took many "takes" to get it right, but the lesson learned - prepare a proper script to eliminate hesitation and make the presentation flow."*

Another positive outcome to emerge from the 2007 data was that the difficulty encountered by students in uploading the digital story assignment file seemed to have decreased. Less than 20% of the students indicated they experienced such problems in the 2007 class compared to more than 40% in the 2006 class. This improvement can be largely attributed to the provision of a dedicated student FTP site for the 2007 class, while the earlier class had to upload via a Learning Management System less able to cope with large file sizes. In keeping with this result, the proportion of students feeling that, overall, the creation of the digital story for assignment submission was a relatively straightforward process, increased from about 45% in 2006 to 60% in 2007. Further, in the 2007 class, about 80% of the students were of the view that the "Creating Digital Stories: Principles and Practice" presentation, the "Digital Story FAQs" presentation and the sample digital story assignment were helpful in creating the digital story team assignment.

In both surveys, more than 55% of the students agreed that the submission of the assignment(s) in digital storytelling format improved the learning outcomes from the subject. While this is a satisfactory result, around one third surveyed disagreed. More encouraging was that in the 2006 survey, 75% of the students felt that the submission of the assignment(s) in digital storytelling format improved this type of presentation skill which is highly sought in the business world today. In the 2007 survey, 82% of the students believed this to be the case. The following comments provide an illustration of this strong endorsement:

*"This was good practice for me and more like a real business assignment than the written assignments."*

*"This is exactly the skill missing in an online MBA course. The ability to present well by being able to communicate in person and to "project" the energy and enthusiasm of the idea is important if not the most important skill senior managers need for internal and external selling to top management members in order to succeed."*

*"More visual !!!! and effective !!!!"*

*"Digital story telling (when used in office environment) makes it superior form of ppt as compared to the standard presentation techniques."*

*“With the current work environment, no senior managers would like to spend the time or want to spend the time to pour through pages and pages of text written document, As I have discovered that after having written 20 pages of strategy on business improvement, my senior GM refuse to read it , so I had to condensed it into a ppt file where it will display the key points. It is time to keep up with the changes in the real business world. After the ppt presentation, my senior GM complemented me on an excellent piece of work.”*

A common negative theme to emerge in both surveys was the time it took to create digital stories. When asked if they would feel comfortable submitting their OBOW (Open Book Open Web) exam (see Williams 2006) in this format, a majority of students responded in the negative. The concerns expressed by the students with regard to this were primarily based upon the time constraints and possibility of technical glitches taking place during the examination period. Similarly, in the 2006 class, the survey revealed that a majority of students (more than 50%) felt that while the discussion board postings of some students in their class in digital storytelling format were more engaging compared to the usual text-based postings, this practice should not become mandatory as time would be a major constraint.

In 2006 as well as the 2007 survey, a majority of students (more than 50%) either agreed or strongly agreed that digital storytelling should be a feature of all U21Global subjects for at least one assignment. However, a larger number of students (36%) were against it in the 2007 class compared to about 8% against it in the 2006 class.

## **Conclusions and future directions**

Further validation is clearly required before contemplating large-scale implementation and this is unlikely to be realised until several more studies have been completed in different discipline areas within the MBA course. A significant challenge yet to be tested is the resistance (or otherwise) of faculty to the widespread adoption of digital storytelling as a reliable and valid assessment instrument.

These challenges aside, the proliferation of broad-band Internet access and the increasing availability of file compression software have opened up new exciting vistas in higher education. It may take some time before the concept of digital storytelling takes hold, but as this paper suggests, existing obstacles are not insurmountable, and with further experimentation and analysis, digital storytelling has the potential to become a mainstream assessment instrument even in the traditionally conservative environment of a graduate business school.



## References

Herrington, J., Oliver, R., & Reeves, T. C. (2003). Patterns of engagement in authentic online learning environments. *Australian Journal of Educational Technology*, 19(1), 59-71.

Paull, C. (2002). *Self-Perceptions and Social Connections: Empowerment through Digital Storytelling in Adult Education*, University of California, Berkeley, Dissertation Abstracts International.

Lambert, J. (2000). Has digital storytelling succeeded as a Movement? Some thoughts. *dStory News*, Issue 2, September 20. Available online: [http://www.dstory.com/dsf6/newsletter\\_02.html](http://www.dstory.com/dsf6/newsletter_02.html) (24 February 2007).

Williams, J.B., Bedi, K. & Goldberg, M.A. (2006). The impact of digital storytelling on social agency: early experience at an online university. U21Global Working Paper Series, 003/2006, August. Available online: <http://u21global.com/PartnerAdmin/ViewContent?module=DOCUMENTLIBRARY&oid=157295> (24 February 2007).

Williams, J.B. (2006) 'The place of the closed book, invigilated final examination in a knowledge economy', *Educational Media International*, 43(2), 107-119.

## Appendix

### 2007 Questionnaire

**1. The introduction of the professor in digital story format helped me to get to know him/ her better compared to the usual text-based introduction.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**2. The introduction of the professor in digital story format has improved the learning environment for me.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**3. The opportunity to submit the Team Assignment in digital storytelling format was a good idea.**

- ☐ 1. Strongly Disagree
- ☐ 2. Disagree

- ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**4. Deciding what information to include in the digital story was a straightforward process.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**5. The submission of the Team Assignment in digital storytelling format improved the learning outcomes from this subject.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**6. The submission of the Team Assignment in digital storytelling format improved this type of presentation skill, which are highly sought in the business world today.**

- ☐ 1. Strongly Disagree
- ☐ 2. Disagree
- ☐ 3. Neutral
- ☐ 4. Agree
- ☐ 5. Strongly Agree
- ☐ Not applicable

---

**Please add any other comment you feel is relevant:**

Not Applicable

---

**7. I was integrally involved in the creation of digital story for my Team Assignment.**

- ☐ 1. Strongly Disagree
- ☐ 2. Disagree
- ☐ 3. Neutral
- ☐ 4. Agree
- ☐ 5. Strongly Agree
- ☐ Not applicable

---

**Please add any other comment you feel is relevant:**

Not Applicable

---

**8. I would feel comfortable submitting my OBOW (Open Book Open Web) exam in this format.**

- ☐ 1. Strongly Disagree
- ☐ 2. Disagree
- ☐ 3. Neutral
- ☐ 4. Agree
- ☐ 5. Strongly Agree

☐ Not applicable

---

**Please add any other comment you feel is relevant:**

Not Applicable

---

**9. The download and viewing of the digital stories of the Professor was a straightforward process.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**10. Creating the MS PowerPoint slides for the digital story was a straightforward process.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**11. Finding the relevant images from the web for the digital story was a straightforward process.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**12. Recording the narration in the background for the digital story was a straightforward process.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**13. The file size of the completed digital story meant uploading via the “Student upload site” and this was manageable.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**14. Overall, the creation of the digital story for assignment submission was a relatively straightforward process.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**15. The “Creating Digital Stories: Principles and Practice” presentation was helpful in creating the digital story team assignment.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**16. The “Digital Story FAQs” presentation was helpful in creating the digital story team assignment.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**17. The sample digital story assignment provided was helpful in the creation of digital story team assignment.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

---

**18. Digital storytelling should be a feature of all U21Global subjects for introductions by professors and students.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**



Not Applicable

---

**19. Digital storytelling should be a feature of all U21Global subjects for at least one assignment.**

- ☐ 1. Strongly Disagree
  - ☐ 2. Disagree
  - ☐ 3. Neutral
  - ☐ 4. Agree
  - ☐ 5. Strongly Agree
  - ☐ Not applicable
- 

**Please add any other comment you feel is relevant:**

Not Applicable

**20. I have some suggestions regarding the use of digital storytelling in assignment submission as under:**

Not Applicable

