

Navigating 21st Century Education: Attitudes and perceptions from the other side of the digital divide

While much research is available on the benefits of incorporating interactive and collaborative environments using online tools and spaces into the teaching of younger students, distance students in older demographics are often left out of the equation. This paper describes a project undertaken in a university with a majority distance education cohort, conducted to determine whether older students (25+) studying via distance education can benefit from the inclusion of the technologies generally designated as the domain of 'digital natives'. The project involves the integration of blog technologies in different configurations across four units for one teaching semester, and surveys students initially and finally to gauge perceptions and attitudes.

Keywords: distance education, web 2.0, blogs, digital natives

Introduction

In today's rapidly changing education environment, it's impossible to look anywhere without hearing buzzwords - 'tech integration', 'social media', 'student-generated learning', 'digital native'. There is a strong push in higher education to adapt teaching methods and content delivery to engage a new breed of learner - as Wall (2010) notes, "Higher ed and K-12 both need to shift teaching methodologies to...real life applications to meet our 21st Century Learners". One can find countless sources urging educators to rethink the way they teach to accommodate these younger learners. Walker and Logan (2008: 2) note that learners are part of a community, and 'failure to engage with learners in the education process risks increasing disengagement and disillusion'. This disengagement is of particular concern in distance education, as students do not have easy access to a community of peers.

Prensky's oft-cited paper on digital natives (2001) makes the case that today's (younger) students should be taught using the technologies they are immersed in every day. While his premise has been widely contested over the last ten years (King, 2010; Siemens, 2007), it is generally accepted that a move to adopting various

technologies in teaching younger students is necessary – students ‘will be looking for a digital culture to which they can contribute and not just consume, ... and demanding interactive environments’ (Donahoo, 2010).

However, it is the intention of this project to determine whether older, more ‘traditional’ students (Prensky’s digital immigrants) still benefit from the use of online interactive tools, and whether these tools help redress some of the isolation experienced when these students study via distance. Stoerger (2009), for instance, proposes a ‘melting pot’ theory where the skill sets of ‘immigrants’ and ‘natives’ integrate and overlap, rather than divide.

The project described here is conducted in an environment where a majority of students study via distance education, and an additional majority of these students are older than 25. Most of these students have not experienced the use of interactive online tools (particularly social media and web 2.0 tools) in their studies beyond the use of the learning management system. In the project, the use of blogs in student learning and assessment were implemented across four units, and students were surveyed twice (once initially, once finally) over the duration of the semester-long project to gauge students’ attitudes and perceptions towards the redesign.

Methods

Initially, lecturers in two disciplines (Linguistics, Music) expressed an interest in delivering interactive and collaborative content via web or social media tools, but were unsure of where to begin and how to develop a strategy to do this. This desire to incorporate particular tools is a common starting point for lecturers, but is better implemented by looking at current learning design and finding tools to support this. In

this project, assessment components were identified that offered opportunities for transfer into an interactive online environment while making few changes to the learning design. Working with existing learning design also serves the purpose of limiting the effect of unit redesign on workload – there was a concern that modified instruction could impact negatively on the lecturer’s workload, as teaching staff are often asked to make substantial changes in their methods of instruction without consideration for the impact these might have on workload (Ruhleder 2010).

A core desired outcome for the project was a more interactive, collaborative assessment experience, to both increase the quality of online instruction and reduce the isolation experienced by many distance students (described by a student in Ruhleder (2010, 72) “We aren’t ordinary commuting students. We ... don’t have the kind of informal access to students and staff that produces a feeling that we are not alone”).

With these considerations in mind, the choice of blogs as a tool was based on the following factors:

- The learning curve is relatively low:
- ‘To create a blog post, one only need write a paragraph, without using (or knowing) HTML. [‘To create a blog from scratch, the user simply fills out a form, which is about as challenging as buying a DVD from Amazon...’ (Alexander 2008:198)]
- Blogs allow current assessment to be transferred into an interactive, online environment with little to no modification to the learning design
- Blogs allow for a high level of collaboration and interaction, through the use of comments and trackbacks, or via multiple-author collaborative blogs
- Blogs allow scope for high-quality, in-depth content and flexible usage - Groom (2008) notes ‘[blogs] are excellent at pulling together all the various online spaces a person may occupy’
- Blogging is highly scalable, in that any number of students can create or collaborate on blogs, and non-blogging students will still benefit from other students’ generated content
- The university currently runs a self-hosted WordpressMU blog platform, and there is no cost involved
- Plugins can be added to streamline management

The blogs were implemented in two different configurations in the two disciplines, across three linguistics units (one of which is postgraduate) and one music unit. In the linguistics units, the blog component was set up to replace part of the previous 'discussion contribution' assessment task, and carried a 5% weighting. One 'main' unit blog was set up for each unit, with a widget that allows students to add themselves as contributors to the blog. Students then contribute content to the blog, sharing media, web and text resources. Their contributions are chronological and based on topics covered within the units, and demonstrate transformative and conceptual understanding of topic content. Students have the option to generate their own media to contribute, as well as contributing and reviewing externally produced media.

In the music unit, an existing major assessment task was a reflective journal and process diary accompanying a major creative project, carrying a 35% weighting. Rather than completing this on paper, students in this unit were required to start and maintain their own blog. An additional 'main' unit blog was set up, and posts were syndicated out from the students' blogs into the main unit blog, allowing students to view other students' work in one place. This configuration provides a communal area for students to view and interact with the reflective process of other students (a level of transparency and interactivity that would not normally be available in a DE context), but still provided individual journal blogs for assessment purposes.

Research data in this project is gathered via two student surveys – one conducted to gather perceptions as students commence the unit, prior to engaging in the blogging exercises, and one conducted at the conclusion of the unit to determine

attitudes following completion of the blog component. The survey assesses students' initial attitudes and perceptions of distance education experienced to date, and their initial responses to use of a 'new' tool, then compares these to the responses gathered at the conclusion of the unit to assess the impact of modified instruction on students' attitudes and perceptions of the unit.

Perceptions – on approach

The initial survey at the beginning of the unit yielded a number of responses that were inconsistent with digital natives theory. The response set consisted of 61 students, 79% of whom are aged over 25. Over 85% indicated they currently use Facebook, nearly 30% use GoogleDocs and wikis, and over half the respondents regularly read blogs (see fig. 1). This is in direct contrast with Prensky's concept of 'digital immigrants', and is more indicative of Stoerger's 'melting pot'. These responses indicated that there were certainly some possibilities to engage students using online tools.

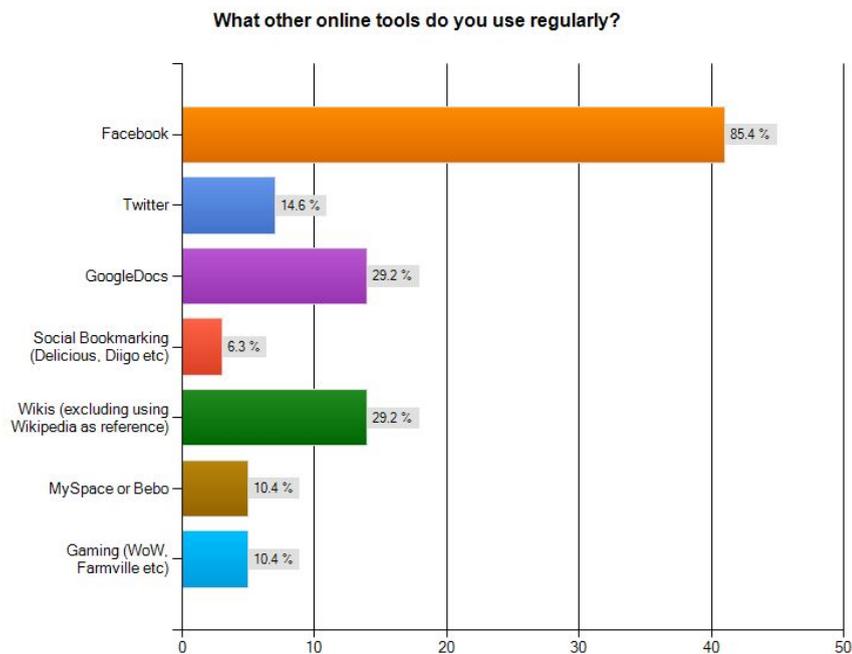


Fig. SEQ Figure * ARABIC 1 – Reported use of online tools

Additionally, nearly 85% of respondents rated their computer competence as 'average' or higher, and 56% of these reported 'savvy' competence or higher – again, not expected in a cohort largely made up of 'digital immigrants'.

As they approached the blog component of the unit, a majority of students could identify both potential positives and potential negatives in the use of blogs. While some of the negative statements do reflect some of the characteristics of Prensky's digital immigrants, they appear to affect the experience of instruction in only superficial ways.

Perceived positives

- being able to contribute and relate to 'real world' examples of what I am studying
- It feels less formal and less intimidating than discussion boards
- much more interactivity
- it allows us students to engage with each other and share online media in a creative way
- It gives a streamlined, diarised process to my learning
- a variety of input from all kinds of people in all kinds of places, not just the uni[versity]
- it allows students to engage with each other

Perceived negatives

- Not having enough time to read/look at them all and make comments
- I am not very technologically literate
- It is an added layer of stress which is already on top of all of the other things we are responsible for
- I find it daunting when I have to learn how to do something new on the computer
- Something I post may be totally irrelevant
- I have never used a blog before
- I don't have time to look at it
- Could get distracted by the blog and not concentrate on the other areas of the study

A majority of the negative comments refer to time management issues, new skill acquisition and anxiety about the ‘quality’ of their contributions – lack of technological skill was listed infrequently as a concern. In contrast, the positive comments focus on qualitative aspects related to the learning process and social connectivity. This suggests that, while some students do appear to view themselves as ‘digital immigrants’ in their ability to decode and use technology, it is not a major blocker, and benefits are still perceived.

In practice – workload and issues

While initial choices in the design of this project were made based on factors that would attempt to curtail potential workload increase for the involved lecturers, the actual time investment for the lecturers in this project was somewhat of an unknown. However, over the course of the semester, the lecturer workload proved to be manageable, and not significantly increased. While there was the additional responsibility of monitoring and commenting on blog posts, this reduced the need for writing extended feedback and monitoring and responding to activity in the unit’s discussion boards. ‘Teething problems’ such as system-level technical difficulties yielded emails to the lecturers, but it is anticipated that this will be a ‘one-off’ incidence for this semester as these issues are addressed for future units.

In regards to student workload, it was predicted that some students would have difficulties with technical aspects of the blogging tool, and this was certainly the case (however, it was interesting to note that this was despite earlier stated self-reported levels of computer competence). Upon investigation of these difficulties, it was found

that a majority of these were due to not reading the provided instructions or running outdated browsers. This suggests that more scaffolding and explicit instructions may be required in future implementations, but that technical issues were not inherent in the blog setup itself.

Attitudes – Findings and discussion

The final survey at the conclusion of the unit gathered students’ attitudes and experiences during the project. Many of the final responses indicated that some of the perceived benefits in the initial survey had been realised, and project intentions had proved largely successful.

Aspects of the project that students viewed favourably were the ability to share and learn using different media, reference beyond the end of the unit and solidifying knowledge of course material. Fig. 2 shows that, while these responses were not universal, there was a strong positive trend in many of the responses.

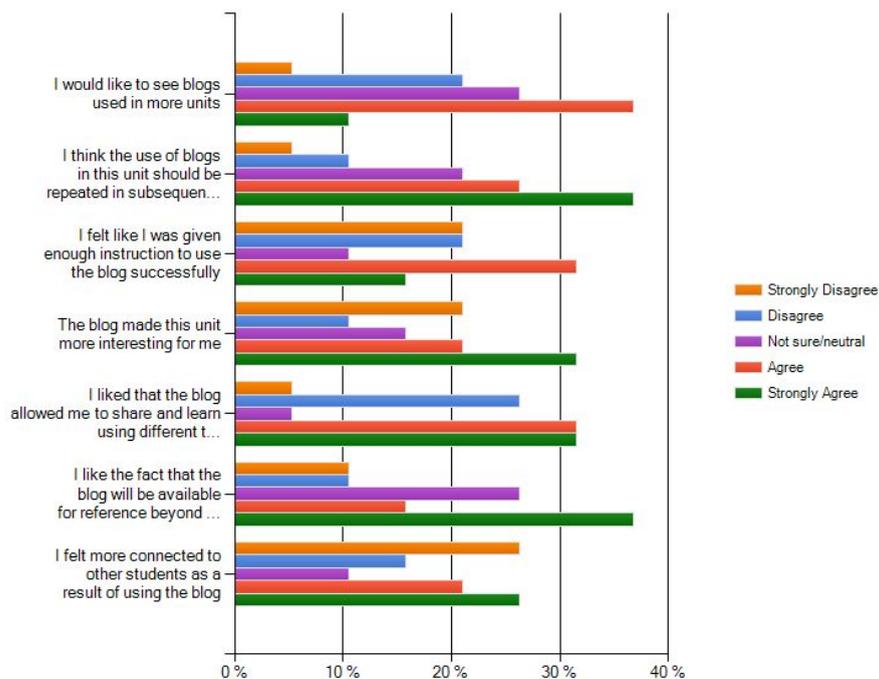


Fig. SEQ Figure * ARABIC 2 – Likert-scale item responses

The free-response items showed that again, positive qualities of the project were largely qualitative and related to the learning process, quality of learning and engagement, while negative responses referred to time management and technical issues, and concerns regarding the content of their own posts.

Most valuable aspects:

- To get things that are topical out to everyone this is a most fantastic tool. There is so much material that is not between the covers of a library book.
- The communication with other students and I learn to look at things in different angles by reading other students' blogging
- Access to lots of information that I wouldn't have found on my own
- Being able to view what other students were doing differently
- Relating what we learned in the unit to real-life, such as what we were studying, finding examples of it in the news, etc.

Most difficult aspects:

- Finding material that related to the subject matter
- Trying to keep up to date with my updates
- Getting used to the tech side of it.
- I also didn't post any comments (due to time constraints)
- Time consuming in the early stages.

The correlation between these responses and those from the initial survey indicate that most of the negative aspects are more superficial concerns that may be addressed with scaffolding and learning design in subsequent units. The positive responses – both the initial perceived benefits and the resulting attitudes in the final survey - indicate that the initial goal of increasing the quality of online instruction was achieved, and support the idea that so-called ‘digital immigrants’ can indeed benefit from the inclusion of online tools generally touted as beneficial for ‘digital natives’.

However, it was interesting to observe that the goal of reducing social

isolation and increasing connectedness of students was not realised across the board. While some students strongly agreed that they did indeed feel more connected to other students as a result of engaging in blogging, an equal number strongly disagreed that they did not. One student noted 'as a distance student I don't feel connected to any other student in this subject. I do not feel comfortable to comment on someone's post whom I have no connection with', while another indicated the most valuable aspect of the project was that 'I could interact with other students through a variety of different media'. It is clear from these results that the use of collaborative media alone is not enough to foster a learning community amongst some students.

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