

# **CHOICE, COLLABORATION AND WEB 2.0: WHAT WE CAN LEARN FROM THE STUDENT EXPERIENCE OF TECHNOLOGY-ENHANCED EDUCATION**

**Colin Gray, Napier University**

## **INTRODUCTION**

In the past few decades higher education has gone through a huge amount of change. Two of the factors in this change which have led to dramatic upheaval are:

1. Widening Access
2. Mode of Delivery

**1.** The widening access movement of the past decade and beyond has led to the present day's hugely diverse student population. In the mid '90s the Tomlinson Report (FEFC, 1996) called for the promotion of 'inclusive education', and this idea led to national programmes such as the Department for Education and Skills' Excellence Challenge in 2001. This morphed into the Aimhigher scheme (DirectGov, 2008) which now operates at the local level all over the country, helping young people access higher education. Additionally, the HEFCE's widening participation funding programme supports schemes which give many students from disadvantaged backgrounds the opportunity to study. With this increasing diversity, however, comes a much more varied set of learning styles, abilities and background knowledge.

Teaching styles must change to accommodate this diversity, but since this particular group have not attended HE in the past we have no experience to draw on with which to make this change. The only people who can describe how these people learn best are the learners themselves: we need to hear the student voice.

**2.** The current generation of learners are well used to collaborating and communicating online via the multitude of social networking sites and other Web 2.0 applications that litter the internet. A Becta report published this year (Luckin, Logan, Clark, Graber, Oliver & Mee, 2008) stated that "learners' use of Web 2.0 and related internet activities is extensive" when looking at children between the ages of 11 and 16. 74% of those surveyed have social networking accounts and 78% have uploaded material to the web. Given these statistics educators are understandably trying to harness these tools in an attempt to engage the learner, but as the Becta report goes on to state, these statistics refer to personal use only and learners are still unfamiliar with the use of Web 2.0 technologies for educational purposes. Furthermore, their use of Web 2.0 may be prolific but it is relatively unsophisticated, consisting mainly of content consumption rather than creation (Luckin et al., 2008). As a consequence it is impossible to assume that this familiarity with the technology will facilitate an easy transfer to working with and creating materials in Web 2.0 in an educational context.

"The experts in learner experience are the learners" (Creanor, Gowan, Trinder & Howells, 2006) and only a student can say what works for them when using internet technologies in an educational context. In order to use these technologies to their best advantage we need to hear the student voice.

### **CASE STUDY CONTEXT**

This paper gives an outlet to the student voice in the context of a fully online Masters level course taught at Napier University called Blended and Online Education (BOE). At the time of writing the students on the MSc BOE had completed two modules of the course, the first being Introduction to Blended and Online Education (IBOE), and the second being Supporting the Blended and Online Student Experience (SBOSE). At the beginning SBOSE the students were given a choice as to what form their individual project would take. The first option was a development project based on their current work - to produce an e-learning object or teaching plan of some sort - and the second was to maintain a weekly blog throughout the module recording their thoughts and reflections on the course, the teaching methods and their learning processes. A number of students chose to keep a reflective blog and the resulting material formed an invaluable resource containing detailed student opinions on fully online learning drawing from both aforementioned modules. Further details on the blog assignment are given in the Reflection and Control section.

Furthermore, virtually all communication and discussion on the course was carried out via online message boards thus recording a further wealth of information regarding how the students felt about the teaching methods used throughout.

This paper draws mainly from the author's blog reflecting on life as a student on the course. It was maintained weekly over nearly two months of the SBOSE module. Also included is one quote from a discussion posting made by the author during the previous module, IBOE.

Two particular subjects taken from this particular student voice were chosen as focuses for this paper:

1. Issues with online group work and collaboration
2. The benefits of online reflection and student control

### **THE TROUBLE WITH COLLABORATION**

The first subject this paper will examine is that of student collaboration using both synchronous and asynchronous online communication tools.

Group work is an often used and valuable learning tool in both face-to-face and online learning (Palloff & Pratt, 2004) but in a fully online context collaboration is made difficult by geographical distribution. The MSc BOE includes a number of group assignments, however, so this difficulty had to be surmounted using the communication tools available, both synchronous and asynchronous.

In the SBOSE module students were required to complete a 10-week collaborative task which consisted of an investigative report into an area of

student support at their own institutions. This report could then be delivered online, for example a group-edited wiki or a narrated presentation. Groups consisted of between three to five people and in general no more than two of each group lived in the same geographical location. Groups were given the choice as to how they would communicate but were encouraged to regularly meet using synchronous communication software, Elluminate being one example.

Elluminate is part of the current range of synchronous communication tools allowing live speech, text chat and desktop sharing. Groups can communicate while viewing various types of materials, from documents to web sites, making it a suitable platform for group academic work.

The following student voice (Quote 1) is taken from a reflective blog post made by the author near the beginning of the group project:

*"...the group work project began nearly two weeks ago now and the learning contracts were due in at the end of last week. Well, ours has only just been finished and hard work it was..."*

*One of the greatest advantages of online collaboration, you would imagine, is the flexibility it affords. People being able to collaborate from remote locations - any time, any place. But we've discovered that it's just as difficult, perhaps even more so, to arrange meetings between geographically remote participants. And then, tie in the difficulties of unreliable connections, broken microphones and unwieldy software and the difficulties only multiply.*

*...I have to admit I've always preferred asynchronous. I'm on the computer for the majority of every working day and I've got used to checking the boards a few times a day, so I can generally respond quickly. It also means that on the occasions when I'm out doing workshops and attending meetings I'm never missing vital synchronous meetings. I do admit synchronous communication has some advantages, but the extra stress and hassle of arranging and running meetings does, to me, negate these advantages."*

**Student Voice: Quote 1 – An early student opinion on online group work.**

Initially, when comparing synchronous and asynchronous communication, it may seem common sense that synchronous is more powerful due to its real-time nature, thus allowing the rapid discussion of a topic. The literature on this matter currently carries views on both sides, however. Some say that synchronous communication is more suited to social uses such as building a sense of community and has many weaknesses that are overcome only by combining it with asynchronous communication (Cox, Carr & Hall, 2004). Others, like Mercer (2003), argue that synchronous communication "significantly contributes to developing more authentic group collaboration and knowledge building". In the case of this paper, the student voice above seems to agree with the former view.

The first piece of evidence leading us towards the requirement for asynchronous communication is that the student states that a major requirement for his group was flexibility, both in terms of time and location, but synchronous communication takes away this flexibility, allowing attendance from any location, but not at any time. He states that there were times when he missed vital synchronous meetings due to other commitments. Asynchronous collaboration allows the true flexibility mentioned above, allowing remote participants to communicate truly any time, any place. Obviously the participants pay for that flexibility in the form of a far higher time lag but, as stated by the student, this lag didn't seem to cause a difficulty.

This finding could perhaps be attributed to the evolving nature of people's work and leisure time, with many now having constant access to the internet during both. It has already been discussed that 74% of children aged 11 - 16 have social networking accounts (Luckin et al., 2008), thus making them significant users of the internet. Therefore the HE students of the future, and perhaps the current cohort, will spend a large part of their week on or near a computer, allowing the constant ability to check bulletin boards, email, wikis and blogs. In this context, asynchronous communication can and often does proceed at a reasonably fast pace. There will always be some that spend less time on and are less enthused towards their computers but statistics show that the number of internet users is growing and so these people are becoming more rare (National Statistics, 2008).

The following student voice (Quote 2) was taken from a reflective blog post made by the author after the group project was completed. It sums up the author's view as a student having completed an online collaborative task:

*"...The trials and tribulations of getting four people together online at the same time have been far more numerous than I would have expected.*

*...we also agree that an hour online is probably equivalent to around a 15-minute face-to-face meeting, through both technical issues and practical limitations of the medium.*

*...asynchronous communication has been continuing without any problem and the time-lag between posts has been causing no problem at all. One thing that may explain this is the fact that we agreed at an early stage to have a daily post by the group chair, even if just to say, "Hi all, hope you have a good day today." This encouraged you to go online every day to check the board as there was always something there to read."*

***Student Voice: Quote 2 - Summing up the student experience of online group work.***

Two interesting points can be taken from this statement: the first is how inefficient the group seemed to find synchronous communication, and the second is the group's novel approach to asynchronous communication.

Taking the first point, the inefficiency of synchronous communication in this case may be explained by various technical issues that plagued the use of Elluminate throughout the module. Elluminate requires that Javascript be enabled and a

microphone and headphones set up in advance. Discussions often started with 5-10 minutes of teething problems and small problems would creep in throughout. This was also compounded by the fact that by default only one person could speak at a time, making communication less efficient. Students did experiment with two-way communication but time-delays in the software made this confusing and frustrating to use at times.

These problems would most likely lessen as students become more used to using the software. A possible solution could include further training in the use of whatever synchronous communication platform is chosen. An alternative may be an initial non-assessed group project, thus allowing learning time with less consequence.

The second point raised by the student voice in Quote 2 is that the group here seemed to come up with their own way of maintaining asynchronous communication which could be useful in other contexts. A common failing in discussion forums is lack of participation breeding lack of participation. As the Pedagogy and Learning Technology says, there is 'nothing more off-putting than an empty message board' (Smyth & Mainka, 2006). By assigning someone to post a message every day they encouraged group visits even if only from a social point of view. This would lead to quicker responses when important messages were posted and so led to the fast paced asynchronous communication referred to in Quote 2.

While much of the evidence above points towards asynchronous communication being a more powerful medium in online group work, it would seem that synchronous communication should always have a place in certain contexts. It would seem difficult, for example, to offer a presentation from a speaker and a following Q&A session in an asynchronous form. JISC have proven this is possible, however, running not just a seminar but a fully online conference for the last two years on the subject of Innovating Online Learning (JISC, 2007a). Keynote presentations are delivered via the web including written speeches and Powerpoint slides, and attendees can view the presentations over the period of a couple of days and discuss the ideas via discussion boards. Evaluations run after both events showed that they were very well received with 87% voting the presentations and papers as very good or excellent and 81% voting the discussions as very good or excellent (JISC, 2007b).

## **REFLECTION AND CONTROL WITH WEB 2.0**

In the introduction it was discussed how each student on the SBOSE module was given the choice as to what type of individual project they would complete: a reflective blog or a development project. The reflective blog's purpose was to provide a narrative relating the thoughts and processes gone through by the student from week 4 until week 10 on the module and show how this would affect future work in the area. It was a requirement that at least one post was made per week and that a sum-up post was made at the end. The student could choose to make the blog public or to keep it private – the author chose the public option. The development project on the other hand required the student to create a tool, resource or other type of intervention which would improve student support on any course with which they were involved. The student developed the tool over the same time period as the blog and would hand in the tool itself along with a written explanation for assessment. Overall, the two

options were very different and provided a serious element of control for the student.

The following student voice (Quote 3) is an excerpt from the author's very first reflective blog post demonstrating the thought processes resulting from such a choice.

*"[Here are] the reasons why I chose to do a blog for this part of the coursework...*

*I'm terrible at learning by rote. I need to think about things, process them and reorganise them in my head in order to remember anything. . . I've read a fair bit of the recommended readings, and felt that I took it in at the time, but a week later I can't recall most of the detail. If, however, I've made a discussion posting on the subject in the day or two after reading it which requires a bit of processing then I recall it for far, far longer. Therefore, blogging it is for this course – hopefully this will force me to reflect on my readings more often and therefore retain a lot more information!*

*I will hold my hands up and proclaim, I am very much a strategic learner... I will attempt to keep my work to a minimum while still attaining a good grade. ...when choosing whether to do a blog or a development project, I could visualise a number of things on which I am working just now which [are] required for my work in any case... But, the purpose of taking this course is to learn of course! ...so I took the conscious decision to do a blog based on the fact that it would force me to read more and reflect more, hopefully learning more."*

**Student Voice: Quote 3 - The student's thought process when asked to make a choice.**

The following is an excerpt from the very last post of the same student reflecting on how the blog has worked as a learning tool and assessment method.

*"...Throughout this module I've been constantly thinking about my next blog post and taking notes of various things to talk about. ...I've learned that writing about issues and ideas is a very valuable process for me and prompts much deeper thinking than I would ever have imagined.*

*I mentioned that I hoped that this process would push me out of my strategic learner mindset... Because I have come to really enjoy writing the blog I have been persuaded to follow up interesting looking links or references in the hope of finding good material to write about. I suppose the blog gives me an extra incentive to learn... as I gain the reward of writing good, informative posts... Even if a learner didn't enjoy writing as much, I wonder whether the pressure of having their work broadcast to the whole class would prompt wider research and deeper learning."*

**Student Voice: Quote 4 - The results of taking control.**

Various parts of both quotes 3 and 4 seem to highlight one of the main advantages of using blogging in a learning context – the encouragement and motivation to reflect. The importance of reflection is demonstrated by the TESEP project in its Pedagogical Principles document which emphasises that “teaching by telling doesn’t work” (Mayes, 2007). The student must be encouraged to follow a constructivist learning path – to reflect on materials and form their own mental maps of information learned. This is a process requiring the student to connect the dots, tie it in with previous knowledge and re-present the information (Kearsley, 2008) and this exact process is described by the student above when creating their blog postings.

Encouraging this deeper reflection is often a difficult task. The dialogue above, however, seems to demonstrate two factors by which blogging specifically can produce this encouragement:

1. Enjoyment drawn from explaining thoughts and ideas – in essence the satisfaction of teaching and contributing to the wider world.
2. The pressure created by having to ‘perform’ to an audience and having your work visible to the wider world.

Both points above depend on the cohort of students creating a network of blogs which are all visible to each other, unlike some students on the MSc BOE who kept their blogs private. If this network is in place, however, the student voice above would seem to indicate that public blogging can provide a highly effective way of motivating the students to take part in reflection.

Backing this up is the student voice below (Quote 5) taken from one of the author’s posts on the discussion boards in the first module, IBOE:

*“[Group work] can seem pointless sometimes to students, if the task is obviously created just for that lesson and has no value elsewhere. It seems we need to find tasks which affect the outside world, and this is perhaps why the use of Web 2.0 technologies has taken off so rapidly. Suddenly we have an easy medium for creating products - blogs, wikis, YouTube - which can be seen by the outside world and help the student contribute to a realm that they value, the world wide web.”*

***Student Voice: Quote 5 - Giving students work of value.***

This is a very interesting student voice in that it demonstrates one reason why students are engaged and encouraged by the use of Web 2.0 technologies – it allows the perception that their work has value in the wider world. From the quote above we can see that students consider the web a place of value and something worth contributing to, as also demonstrated by the large percentage of school students subscribed to social networking sites building and maintaining real relationships (Luckin et al, 2008). The affordances and control offered by Web 2.0 technologies, such as easy content creation and dissemination, allows the tutor to create tasks which involve students contributing to this world in a real sense. These findings seem to agree with Kearsley and Schneiderman’s (1999) Engagement Theory which advocates greater engagement in students

when work is placed in an external context, or given value outside of the classroom. Both student voices shown in this section seem to advocate that blogging and Web 2.0 in general can easily facilitate this type of contextualising and control of the outside world leading to greater engagement.

Another point that could be drawn from quotes 3 and 4 is the idea of a learning partnership between student and tutor. By offering students a choice in how they are assessed they are brought into the decision making process, thus giving them a sense of control and ownership.

This is an idea demonstrated by Knowles' Theory of Andragogy (Knowles, 1984) in which ownership and control encourages more responsibility in the students, thus producing deeper engagement. Control and responsibility are also key concepts in the TESEP project's 3E approach which advocates handing over much more power to the learner, or to *empower* the student as the third E promotes (Smyth, 2007). The 3E approach requires that the "learners needs and interests drive the learning experience".

In Quote 3 the student demonstrates that when given the responsibility to choose between two different assessment methods they took the decision seriously and chose the path which would most benefit their learning. It could be speculated from the evidence in Quote 3 that having made this choice the student felt more ownership of the task and felt greater motivation to perform well, leading to more research and better blog posts.

Naturally, the question arises of whether the average student will always take the responsibility of their choice seriously, or will they simply expend vast amounts of time and energy (far more than they do on the coursework) finding the path of least resistance? It could be argued that provided both assessment choices are written to meet the course assessment requirements then the choice will benefit at least some students in the way demonstrated above and simply not affect others. Those that choose what they think is the easiest will still satisfy assessment criteria, but those that choose responsibly will gain ownership and control and hopefully perform better as result.

The area of student control is, of course, not restricted to the area of online learning and learning technology, but it enters the context of this paper when it is considered that ownership and the aforementioned value of work could amplify the effect of each other. It was discussed previously that Web 2.0 technologies allow students to publish their work in the wider world, thus adding value to the product and increasing their desire to "perform" well. It could be speculated that the extra element of ownership generated by having a hand in setting that learning task would amplify both the sense of value and the desire to 'perform'. Therefore, Web 2.0 technologies could be seen as an ideal platform for providing control to the student as the sense of value and ownership would work hand-in-hand. This is something which cannot be fully confirmed by the data in this paper but which would be interesting to explore in the future.

## **CONCLUSION**

As discussed, this research was considered worthwhile due to the dramatic changes in both the type of learner attending higher education and the changes in delivery method used to teach them. The experiences of the student herein

can help to point educators in the right direction when developing courses to engage more diverse cohorts and to teach well over different delivery methods. Firstly, with regards to collaboration, this paper has indicated that the student of the future will prefer academic communication to proceed via an asynchronous medium provided that certain approaches are followed in its use. The large benefit of synchronous communication – the ability for quick, real-time responses – is no longer significant enough to compensate for the lack of temporal flexibility it affords. This is due to the fact that students can often respond in asynchronous environments relatively quickly as online communication in general is now a significant part of their lives. If guidelines are put in place that require or recommend regular postings then students will usually visit often. This is an important insight as collaboration online is likely to become more common as online learning grows. The communication methods used in these collaborations are key to their success.

Secondly, this paper has shown evidence that public blogging is a very useful tool in encouraging the type of reflection required in a constructivist learning approach. The enjoyment drawn from writing and teaching others combined with the 'pressure to perform' can produce very good results according to the case study presented above. This is underpinned by the fact that Engagement Theory (Kearsley & Schneiderman, 1999) seems to apply to public blogging in that it contextualises students' work in the outside world thus giving it greater value in their eyes.

Lastly, the student voice presented in this paper seems to confirm the value of student control in online learning and demonstrates that when given the choice of assessment types using various learning technologies they will take the decision seriously. The extra sense of ownership derived from this control could well amplify the student's sense of value in Web 2.0 generated content thus making student control in the Web 2.0 environment an even more potent learning tool.

One thing that is obvious from the student voice included in this paper is that a huge amount of useful information resides in the opinions and experiences of the thousands of students currently using learning technology on a regular basis. Only by drawing information from these learning experience experts can educators create learning materials that cater to wider audiences and make proper use of the new delivery methods available to them.

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