The Grass is Always Greener on the Other Side – or is it? Action research in the Web 2.0 classroom

Natalie B. Sarrasin
Zarina M. Charlesworth
University of Applied Sciences and Arts Western Switzerland
natalie.sarrasin@hevs.ch

Abstract: This paper presents the results of an action research project carried out in a first-year year marketing course over an entire semester. The planning stage during which a *traditional* course was reviewed and a completely revised course developed are reported. The impetus for the change came from exploratory research with first-year students and Business School faculty. The change in the course was guided by the work of Lebrun (2007) and Mazur (1997) to result in an instructional style along the lines of the "flipped classroom". Student reaction was gauged throughout the semester through class observation and informal feedback and measured quantitatively through a self-report questionnaire (Lee & Tsai, 2011) at the end of the semester. The follow-up reflection stage has called for a further iteration and a review of the design to be implemented in the next semester.

Keywords : Web 2.0, Action research, Learner-centered

Introduction

As with every new century, the 21st is not without its challenges one of which is the speed at which we are witnessing and embracing technological change. Every aspect of our lives is being impacted which in turn calls for the re-evaluation of the manner in which many things are done. Education, touching as it does on the formative years of life through to adulthood, calls for the taking of an in-depth look upon. This implies taking into account the potential and actual impacts of Web 2.0 on teaching and learning. This project focusses on the higher education classroom, more specifically on the undergraduate management class.

The use of the Web in teaching and instruction was discussed in depth well over fifteen years ago by Windschitl (1998) who went so far as to outline a research agenda which even at that time included the use of the Web by students for inquiry or information seeking and communication or what today might go by collaboration. The Web that he spoke of has since undergone something of a paradigm change from something consultative to something interactive although the technology itself has not changed greatly the way in which it is used has. Web 2.0 goes way beyond the "static, centralised, content-based, readable, rigid and individual" (Hamid, Chang, & Kurnia, 2009) nature of its predecessor Web 1.0. It encompasses a range of relatively new technologies that "allow the user not only to read, listen or watch but to contribute as well, whether by adding comments to an existing posting, jointly creating a web page or document or simply chatting in social space" (Armstrong & Franklin, 2008, p. 3). Web 2.0 has gone from read only to read and write, from a space where content is but uploaded to where it is both created and exchanged (Cormode & Krishnamurthy, 2008; Thompson, 2007)

The effect of such technology on higher education is still largely unknown. It would seem, however, that a rupture with past and even current practices is inevitable but "the potential transformation of the practices themselves is yet barely understood [and] Higher Education Institutes and their students find themselves in unchartered territories with respect to their use of Web 2.0 technologies " (Armstrong & Franklin, 2008, p. 2). Lines of research need to be expanded and focus on the way in which students are using the Web for learning both in and out of the school setting (Greenhow, Robelia, & Hughes, 2009) examining uses for information seeking and collaborative learning.

These technologies, already an ubiquitous part of everyday life, are here to stay. It is imperative that institutes of higher education be open to the idea of using Web 2.0 technologies and the new constructs that come with it. Constructs that can be grouped under the heading of Education 2.0 "with the suffix 2.0 characterizing themes such as openness, personalization, collaboration, social networking, social presence, user-generated content, the people's Web, and collective wisdom, and demarcating areas of higher education where a potentially significant transformation of practice is underway" (Dabbagh & Kitsantas, 2012, p. 4).

This research project takes up the challenge of making changes in the classroom and following up and their impact from both the point of view of the educator and the students.

Context / Background to the study

Prior to embarking on the action research several faculty interviews (n=5), two workshops with faculty on Web 2.0 uses in the classroom and two focus groups with third-year undergraduate students (n=17) in the Business School. The results of this research (Charlesworth & Sarrasin, 2014, unpublished manuscipt) suggest that faculty have mixed feelings about what is sometimes seen as an intrusion in the classroom of Web 2.0 and at the same time are interested in knowing more about how this tool could be better integrated in the learning experience. The faculty in the Institute where the research was carried out are all required to have followed an internal teaching program, however, once completed, there is no requirement to attend any further classes, workshops or seminars related to learning and instruction. The end result is that, more often than not, the lecturer is on his or her own to test things out in the classroom. The students, on the other hand, have a helicopter view of how their classes are being taught which is why it was important to get their perspective on the learning experience. The findings from the focus groups suggest that students have high expectations of the faculty and that the integration of Web 2.0 tools in order to enhance the learning experience goes without saying. They were very clear in expressing the opinion that it was no longer acceptable for a lecturer to come to class and do nothing more that present his slides. Students were largely in agreement that a course which would allow for increased discovery, evaluation and collaboration on their part would be a welcome change.

Some of the changes mentioned in the introduction have had a very concrete impact at the Institute where the research is being carried out including (1) the requirement that all students must have a portable computer and (2) the installation of broad-band internet access throughout the entire campus including in all classrooms. Due to the fact that a computer is now required, students can legitimately expect it to be used not only for their out of class studies but also in the classroom. This changing environment is having an impact on teaching and learning. It would seem that three options are now available to the faculty: (a) continue to teach as they always have despite having a sea of open laptops in front of them; (b) refuse to allow the use of computers / tablets / smartphones in their classroom; (c) take advantage of the Web 2.0 tools available to enrich their classes.

Finally it is of importance that this research be carried out in a pedagogically informed manner. Using Web 2.0 because it's the latest trend was not the reason for this project. Rather the objectives were to examine how best to rise to the challenge of the changing teaching and learning landscape and to examine how Web 2.0 technologies could be used to add value to the learning experience. The theoretical framework for the project is based upon the development of the self-regulation skills of the student (Zimmerman, 1989, 2000) and to the three-stage framework proposed by Dabbagh and Kitsantas (2012). The latter emphasizes the inclusion of Web 2.0 tools in (1) personal information management; (2) social interaction and collaboration; and (3) information aggregation and management. In order to best implement such changes the body of literature that was referred to can be loosely grouped under that of peer-instruction (Mazur, 1997), the flipped classroom (Lebrun, 2007) and learner-centered instruction (Saulnier, 2008).

Methodology

Action research, more than any other paradigm, takes the interest of all stakeholders concerned into account (du Preez, 2011). Seeing the nature of our inquiry it also seemed the most fitting. As called for by this type of research, the steps that one must go through include: intention, action and review (Dick, 1993). For the sake of clarity, the procedure that was followed is shown below under these headings.

Intention

The intent was to take an existing course, the material of which was well known to the lecturer cum researcher, and redesign it in such a manner as to take advantage of the possibilities that Web 2.0 tools offer for information search (IS), collaboration (C) and, information aggregation and management (IAM). In order to take advantage of the time available in the classroom the decision to use a "flipped class" (Lebrun, 2007; Mazur, 1997;

Saulnier, 2008) structure was taken. As Tucker (2012) says "with teacher-created videos and interactive lessons, instruction that used to occur in class is now accessed at home, in advance of class. Class becomes the place to work through problems, advance concepts, and engage in collaborative learning. Most importantly, all aspects of instruction can be rethought to best maximize the scarcest learning resource—time." (p. 82).

The course chosen was a first-semester, year-one course in Marketing Management for students following the Bachelor degree program. This choice was deliberate with the idea that exposure to this type of class from the time at which a student was entering higher education would be easier than with a third year group and also in the hopes that the students would develop a taste for this type of learning and encourage other of our colleagues to go down this path.

Despite the option of using only Moodle (the Learning Management System (LMS) currently used in the Institute) the choice was made to impose the use of Google+ as a parallel system. The intent was to encourage students to use a platform that they could easily encounter later on in their professional lives and to have to go through all the steps from set-up to management that this implied. A closed community was created for reasons of privacy and also provided a research field.

Prior to the start of the semester the scheme of work for the entire course was set down on paper. This included the usual chapter and reading division, individual and group activity selection and the planning of all Web 2.0 related activities. Additionally, tutorial time for the creation of Google+ accounts and a detailed explanation of how they would be used was incorporated into the scheme of work. This process was carried out over a period of several months and together with another colleague in the marketing department.

Action

This stage saw the implementation of the action research and included: active observation, informal student feedback, the distribution of self-report questionnaire to the students.

During the first lecture students were told that they would be finding themselves in a different sort of classroom and that a lot would be expected of them but that they would also stand to learn a lot. In order to add the most value to their learning experience the students were told that they would have to accomplish five tasks, four individual and one group, over the course of the semester for which they would receive a badge. All five badges were necessary to be admitted to the final exam. Much of the work that was involved would be done outside of the classroom in order to get the most out of in-class time and the structure was indeed that of a "flipped classroom" in which the students were expected to do a good part of their learning prior to coming to class in order to put it to the test together with the lecturer and their peers.

Figure 1.0 presents the scheme of work with the associated badges. The related skills (IS, C, and IAM) are noted next to the activity. The students were able to sign up for the different activities/dates and thus shouldered the additional responsibility for managing their time over the course of the semester as these decisions were taken right at the outset. At the end of the semester the Participant Perception Inventory - Internet versus Traditional Learning (PPI-IvT) self-report questionnaire (Lee & Tsai, 2011) was distributed to the students to gather additional data. These results are currenty being analysed.

Review

During the semester informal review of the course was conducted on a continual basis both with the students and out of class on the part of the researcher. The feedback during the semester varied from astonishment at the outset, through intrigue and interest, to downright indignation and back again. At the time of writing the grades had not yet been compiled. Overall the experience can be seen as positive and the research team is ready to continue with a further iteration of the intention, action, review cycle in the coming semester.

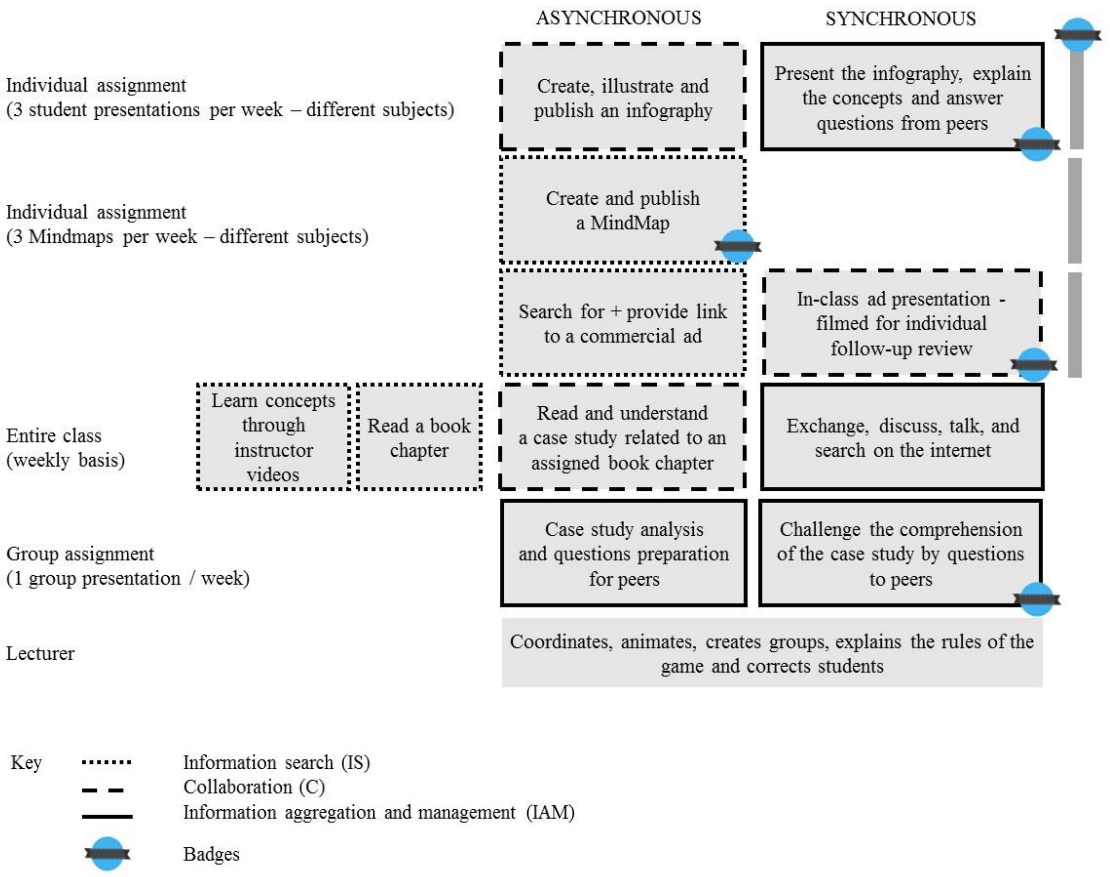

Figure 1: Scheme of work for the redesigned Marketing course

Findings

The findings are on two levels, those reported back by the person conducting the action research in the classroom coupled with student feedback given on the PPI-IvT self-report questionnaire (Lee & Tsai, 2011). From the point of view of the researcher the experience was enriching yet at the same time called for a high level of personal involvement. It became clear as the semester progressed that first-year students arrive with rather definite a priori expectations about what the higher education classroom should be. Despite the time and effort that went into the preparation of the course the researcher realized that the iterations that one speaks of in action-research could have come all throughout the semester and that continual change and adjustment might have influenced the student perceptions of the style of instruction. Instead, once the scheme of work was published it was more or less followed.

Student reaction was varied but as the semester progressed it became clear that they did not feel in control of their learning but more as if they had lost control and the lecturer as coach was not a replacement for the traditional lecturer with an expository style of instruction. One student went so far as to write to the lecturer requesting that the class be changed back to a more traditional style of teaching. Whereas students provided extremely well-designed and comprehensive infographics and mind-maps, once they had to stand up in front of their peers, many lost assurance and when it came to evaluating their peers they were, for the most part, not comfortable with this process.

The results from the self-report questionnaire are currently being analysed but seem to suggest that (1) students do not seem to take on board the intended impact on information-seeking, collaboration and information aggregation and management that the redesigned Web 2.0 class was meant to encourage, and (2) do not seem to

have a clear opinion on whether they prefer traditional, read expository, type teaching or Web 2.0 flipped classroom type teaching.

Discussion

It would seem that preparing what promises to be an interesting, stimulating, innovative course is, in and of itself, simply not enough. If one wants to review instructional style then student commitment is a key factor. Although further research is necessary the influence of variables such as student motivation and the link to assessment might carry more weight than was expected, especially with first-year students. Lebrun (2007), referring to earlier work by Biggs (1999), emphasizes the importance of the alignment between course objectives, methods of instructions, tools used to support learning and evaluation. In order to that students react positively to the type of change proposed here it is thus important that the link between learning, the skills that they will be acquiring during the semester and the manner in which they will be evaluated be made.

It also became apparent through the course of the semester that whereas the textbook and or readings were considered one source and the student presentations another source the lecturer was expected to be more than just a coach but was also expected to provide an interpretation for the students. An interpretation which needed to go past just an oral reply but which a certain number of students would have preferred to have had in written form (slides, handouts, sample answers). This position is in line with that of Mazur (1997) who highlights the importance of the student's opinion in addition to what has been taught.

Finally a certain number of activities did indeed meet with success, especially that of the infographics. Students not only learned about the subject but also how to synthesize it and present it visually and this done were able to compare their understanding of the subject with that of their peers. On the other hand the inclusion of Mindmaps was not an activity which was as easily shared as somewhat more personal and in retrospect most of the students went through this type of synthesizing activity in the production of their infographics making it redundant.

The link to IS, C and IAM was found to be an effective manner in which to structure the course, however, the importance or rather the value of these skills needs to be made more explicit in order that the students understand why they are included in the learning activities.

Conclusion

In conclusion, course redesign is an exciting path to go down but one that takes time and commitment. It is important to focus on the objectives and make them clear to those involved. The student "the grass is always greener on the other side" reaction in the focus groups suggest that there is a certain willingness even enthusiasm to embrace change but that this change, unless well-scaffolded and clearly explained, will not succeed. As Mazur (1997) so aptly reminds teaching should focus on the learner and on helping them to integrate and understand new information rather than on the mechanics of teaching.

References

Armstrong, J., & Franklin, T. (2008). A review of current and developing international practice in the use of social networking (Web 2.0) in higher education. UK: Franklin Consulting.

Biggs, J. B. (1999). What the student does: teaching for enhanced learning. Higher Education Research and Development, 18(1), 57-75.

Charlesworth, Z. M., & Sarrasin, N. B. (2014). Pedagogy for a digital age: barriers and drivers for the co-construction of knowledge in higher education. Paper presented at the Edmedia: World Conference on Educational Multimedia, Hypermedia and Telecommunications.

Charlesworth, Z. M., & Sarrasin, N. B. (unpublished manuscipt). Redesigning course delivery and instructional methods for the inclusion of Web 2.0: Lessons from the trenches.

Cormode, G., & Krishnamurthy, B. (2008). Key differences between Web 1.0 and Web 2.0. First Monday, 13(6). Retrieved from http://firstmonday.org

Dabbagh, N., & Kitsantas, A. (2012). Personal learning environments, socialmedia, and self-regulated learning:A natural formula forconnecting formal and informal learning. Internet and Higher Education, 15, 3-8.

Dick, B. (1993). You want to do an action research thesis? Retrieved March 20, 2014, from http:||www.scu.edu.au/schools/gcm/ar/art/arthesis.html

du Preez, V. (2011). Taking it further : the practical implications of action research. Paper presented at the Design, Development & Research, Cape Town.

Greenhow, C., Robelia, B., & Hughes, J. E. (2009). Learning, teaching, and scholarship in a digital age: Web 2.0 and classroom research: What path should we take now? Educational Researcher, 38, 246-259.

Hamid, S., Chang, S., & Kurnia, S. (2009). Identifying the use of online social networking in higher education. Paper presented at the ASCILITE (Australasian Society for Computers in Learning in Tertiary Education), Auckland, New Zealand.

Lebrun, M. (2007). Quality towards an expected harmony:Pedagogy and technology speaking together about innovation. AACE Journal, 15(2), 115-130.

Lee, S. W.-Y., & Tsai, C.-C. (2011). Students' perceptions of collaboration, self-regulated learning, and information seeking in the context of Internet-based learning and traditional learning. Computers in Human Behavior, 27, 905-914.

Mazur, E. (1997). Peer instruction: une méthode éprouvée d'enseignement interactif: Presses polytechniques et universitaires romandes.

Saulnier, B. M. (2008). From "Sage on the Stage" to "Guide on the Side" Revisited: (Un)Covering the Content in the Learner-Centered Information Systems Course. Paper presented at the ISECON, Phoenix, Arizona.

Thompson, J. (2007). Is Education 1.0 ready for Web 2.0 students? Innovate, 3(4). Retrieved from http://www.innovateonline.info/

Tucker, B. (2012). The flipped classroom: online instruction at home frees class time for learning. Education Next, Winter 12(1), 82-82. Retrieved from http://educationnext.org/journal/winter-2012-vol-12-no-1/

Windschitl, M. (1998). Thw WWW and classroom research: what path should we take? Educational Researcher, 27(1), 28-33.

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. Journal of Educational Psychology, 81(3), 329-339.

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich & M. Zeidner (Eds.), Handbook of Self-regulation:Theory, research and applications. Orlando, FL: Academic Press.