

Fostering a web 2.0 ethos in a traditional e-learning environment

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Abstract: As technology continues to flatten the world and as Web 2.0 changes the way knowledge is created and shared, tertiary education institutions are turning increasingly to e-learning to extend access to students globally as well as to improve the quality of their learning experience. Learning Management Systems (LMS) currently dominate the delivery of e-learning at this level. Though these systems have extended functionality by including some Web 2.0 tools, they are generally perceived as a “walled garden”, essentially embodying the traditional transmission paradigm of teaching and learning rather than the philosophy of Web 2.0. This is leading, particularly in the blogosphere, to calls to break down the walls of the LMS and to explore more open online courses. There is, however, an emerging view that Web 2.0 ideals can be realised within an LMS environment, provided the environment is aligned with these ideals. This paper supports that view. It presents a case study of an eight-week e-learning course based on this premise, offered first in spring 2011, with a second iteration in spring 2012, as part of a doctoral programme in Instructional Technology by Duquesne University, Pittsburgh, USA, and designed and delivered within an LMS by an instructor living in Northern Ireland. The course is underpinned by the concept of learning by wandering. The pedagogy is aligned with the fundamental Web 2.0 philosophy. Within broad parameters, it is flexible, student-centred and, from an early stage, student-led. Students are encouraged to use a variety of Web 2.0 tools, according to their preferences, to collaborate in preparation for their leadership role and as a language to express their ideas and to share their learning. The teacher’s role is identified as sage at the side. This case study is intended to contribute to the provision of a framework for transformative e-learning through fostering a Web 2.0 ethos within a traditional learning environment.

Keywords: learning management systems; Web 2.0 ethos; case study; learning by wandering; sage at the side; transformative e-learning

1. Introduction

As technology continues to flatten the world (Friedman, 2007), and as Web 2.0 changes the way knowledge is created and shared (Guth and Helm, 2010), tertiary education institutions are turning increasingly to e-learning to extend access to students globally as well as to improve the quality of the learning experience (Beetham and Sharpe, 2007). Learning Management Systems (LMS) are currently “the most representative e-learning applications” (Georgouli, Skalkidis, & Guerreiro, 2008) and dominate the delivery of e-learning at this level (Kyong-Lee and Bonk, 2006). Though these systems have extended functionality by including some Web 2.0 tools, they are still generally perceived as a “walled garden”, essentially embodying the traditional transmission paradigm of teaching and learning rather than the philosophy of Web 2.0 (Katsifli, 2010; Lee and McLoughlin, 2011). This is leading, particularly in the blogosphere, to calls to explore “massive open online courses” (Stein, 2008; Siemens, 2011). Huijser and Sanker (in Lee and McLoughlin, 2011: 267-283) argue, however, that Web 2.0 ideals can be achieved within an LMS, provided the environment is aligned with these ideals.

This paper supports that view. It offers a descriptive case study of an eight-week e-learning course, based on this premise, which endeavoured to create this environment and to bring the new Web 2.0 mindset to bear on the delivery of e-learning within a traditional LMS. Reference will also be made to the second iteration of the course, to its distinctive features and new dimensions, as well as to the enhancement effected by the application to this iteration of the lessons learned and the insights gained from the first course. The study is based on qualitative data derived from the following sources: notes made by the lead author as participant observer (Quinn Patton, 2002), archives of the synchronous weekly class, discussion board activity, and student assignment. Particular attention will be paid to the students’ perspective of their e-learning experience, and, in the interest of “thick description” (Quinn Patton, 2002: 331), the paper will capture the views of students mainly in their own words. It aims, therefore, to highlight the human dimension and provide an inside view of the two courses as experienced by both teacher and students. The paper also deals with well founded concerns that e-learning might be used “simply to enhance inherently deficient practices (e.g. lecturing)” rather than to try to release its “potential to transform the educational transaction”

(Garrison, 2011). The specific focus was on two questions: How can this course, delivered within a traditional LMS, embody the Web 2.0 ethos? Does this process lead to a transformative e-learning experience for the students?

The eight-week online course on Education in a Global Society was first offered as part of a doctoral programme in Instructional Technology by Duquesne University, Pittsburgh, USA in spring 2011. A second iteration, delivered in spring 2012, has just been completed at the time of writing. The course was designed and delivered by an instructor living in Northern Ireland (the lead author). The paper will outline the rationale, aims and objectives of the course, the demography of the doctoral cohorts, the course design in the context of high expectations of delivery by e-learning, the pedagogy, the technologies used, and the lessons learned – and subsequently applied to the second iteration of the course. It is hoped that this case study can contribute to a framework for transformative e-learning for both students and teachers and support the argument that the Web 2.0 ethos can be realised within a traditional LMS environment.

2. Rationale, aims and objectives

The rationale for the course was to address the need to raise the level of global awareness of students with regard to education in order to prepare them to function effectively as educators in a multicultural society and in a world without borders. The aim was to enable students to understand the socio-cultural context of education globally, beginning with their own as a basis for the comparative study of other systems. The objectives were to understand the history of educational ideas in the western world and evaluate these in the context of a global society; to compare and contrast American education with education systems in other selected countries; to assess the students' personal educational experience and philosophies, and to critique how their philosophies affect the roles of educators, students, and organisations.

3. The first cohort

The first doctoral cohort comprised eight graduate students, all with responsible positions in education or training, all with limited exposure to other cultures, and all with previous experience of e-learning. The level of digital literacy ranged from good to very high. By contrast, the level of digital literacy of the teacher was quite basic, a situation that led to unexpected and invaluable outcomes which will be discussed later in the paper.

4. The course design

The design was grounded in the firmly held view of the teacher/designer that e-learning could actually break down the barriers to learning encountered in the 'limited and closed world of the traditional classroom' (Martin, 2010: 75) and, with appropriate e-pedagogy, could "sustain a form of learning that is equivalent, if not superior, to that provided by traditional classroom settings" (Kuriloff, 2005). It was also grounded in the belief that this form of learning could provide students with a challenging, enjoyable and transformative e-learning experience. The design was underpinned by the concept of learning by wandering – using technology, in accordance with one's own way of learning, to embark in a spirit of "serious playfulness" and with an ever-open mind on a largely uncharted voyage over the seas of cyberspace in an endless quest of other ways of knowing, thinking and being in the world (Martin, 2010: 85). This way of learning necessarily involves being willing to "travel tangentially ... and to share with and learn from others" (Martin, 2010: 24), and the course design sought to facilitate that approach. The sharing with and learning from others was to take place asynchronously in Blackboard and in real time in Wimba Classroom where weekly class sessions were to be held. Virtual visits were to be undertaken first as a class group to a small number of identified educationally high performing countries. Additionally, each student was given complete freedom to select a country - other than one already visited - for individual wandering and exploration. All such learning and reflections were to be shared. For this purpose, students were given the option of using Web 2.0 technologies.

5. An appropriate e-pedagogy

Mindful that many educators tend to regard "on ground" classroom-based teaching as the optimal learning experience and therefore tend to see online learning simply as an "alternative delivery system for traditional pedagogy" (Kuriloff, 2005), the teacher sought to create an appropriate e-pedagogy that would help release the transformative potential of e-learning. Foremost in the pedagogy was the establishment of a high quality relationship with the students. Hargreaves (2003) stresses that good teachers understand the importance of caring relationships and emotional

engagement with learning. This applies particularly in e-learning because of the potential in this environment for personal and social isolation and disaffection (Croft, Allison and Duff, 2010). The teacher therefore considered it essential to move from a view of the web as an “information revolution” to that of a “relationship revolution” (Schrage, 2001). Additionally, within broad parameters, in accordance with the philosophy of learning by wandering, the e-pedagogy was flexible – to allow for some productive off-course wandering and reversal of roles. It was also aligned with the open, collaborative and relational mindset of Web 2.0 (Guth and Helm, 2010: 22). Blackboard and Wimba, and - in accordance with students’ preferences – Web 2.0 technologies were used as shared spaces for “collective intelligence”, and there was a strong focus on “participative and collaborative user experiences” and on “dialogical conversations” (Guth and Helm, 2010: 41). Specifically, the e-pedagogy was student-centred and, from an early stage, student-led, as students worked in pairs to lead a part of the group learning journey, as well as undertaking independent individual explorations to a country of their choice. A shared learning approach within a community of learners was fostered throughout the course to allow them to experience learning as a collaborative, social and enjoyable activity, inclusive of both students and teacher. The underpinning metaphor for this approach is Thornburg’s (2004) Campfires in Cyberspace, with the campfire as the more formal learning place where the elders (the teacher or the student leaders) tell the story and initiate discussion, and the watering hole as the informal space where wanderers take turns to be storytellers and listeners and where peer learning takes place.

6. Implementation

In the context of maintaining a caring relationship in which each student felt that his/her progress mattered to the teacher, the latter made two major commitments. One was to offer students who were unsure about the direction of their assignments the opportunity to submit them as work-in-progress for monitoring by the teacher without prejudice to the final grade. This option was welcomed by the students and availed of responsibly - usually in the form of Google docs to facilitate pre-submission sharing and editing as the student deemed appropriate. The second commitment was to email individual formative feedback after each assignment. This was enormously appreciated by the students and increased their motivation to give of their best. One student’s reaction was typical: *I appreciate that you personally email each of us after a project or assessment. ... I find it validates the hard work we put into our assignments. ... I understand it takes time, but it does mean so much to me that you send a personal email with strengths and weaknesses.*

The first form of learning by wandering to which the students were introduced was “time travel” to enable them to follow in outline the story of educational ideas in the western world from ancient Greece to the Digital Age. This served as context for the ongoing exploration into the direction education should be taking in our global society. Another form of tangential wandering introduced at an early stage was “The Journey into Self”. This encouraged students to keep a reflective journal to monitor their own inner wandering and to consider whether this journey was transformative of them as learners.

Travelling tangentially was encouraged throughout the course. Initially, this took the form of looking briefly at the theme of learning by wandering in myth and legend (Martin, 2010) as well as in ancient and more modern history and in literature. The students saw tangential travelling as a rich contributory source to their learning and felt comfortable with going off course to share readings and learning experiences from their “real life”. An example was the sharing at one point by a student discussion leader of an issue, which, though introduced under the subject title of “entirely unrelated”, evolved into a fecund sharing of experiences on the importance of the teacher in the learning process.

7. Scaffolding students as leaders of learning

The strategy of having students lead the learning by putting two in charge of a particular section of the group wandering proved to be highly effective in terms of learning as well as being an enjoyable and potentially transformative experience for the leaders. Over the period of eight weeks, the class as a group virtually visited four countries selected from the course textbook with emphasis being placed on additional shared research. This meant that all students could take turns at being both teacher and learner – or storyteller and listener according to Thornburg’s campfire and watering hole metaphor. The teacher provided scaffolding for the leaders in a number of ways prior to their undertaking their roles. Simple guidelines for leading asynchronous discussion were made available. The teacher also drew up a content analysis model for online discussion, based on the model devised by Gunawardena, Lowe and Anderson (1997). The model illustrates how knowledge construction and

negotiation of meaning online proceed through five phases, identifying at each stage the Process Variables (how learners negotiate and interact) and the Product Variables (content and outcomes of learner interactions). For convenience, the teacher's version of this model is reproduced in table form in Table 1. This provided all students with a tool to enable them to analyse the content of the particular group discussion they were leading. It also helped them to self-evaluate their own contributions to discussions.

Finally, the teacher held a short tutorial in the Wimba Classroom with each pair of leaders just prior to their undertaking the role. This was totally non-directive. Its purpose was simply to give the leaders a voice, to ensure they understood their mission and assure them of teacher intervention only when or if requested. They appreciated this freedom and empowerment, and without exception, rose to the challenge, using mainly wikis and Google docs to collaborate in preparation for their task. The weekly synchronous class was the forum where each pair of leaders prepared their peers for the next stage of the learning journey. They also took great care with the identification and formulation of the main discussion question to be followed up asynchronously in Blackboard, where they succeeded in initiating and monitoring well-reasoned and stimulating posts, often enhanced by reference to websites researched by students and illustrated by videos from YouTube and other video-sharing websites.

Table 1: Model for online discussion content analysis (based on Gunawardena, Lowe and Anderson, 1997)

Phase	Process variables	Product variables
1	Sharing and comparing information	Statements, observations
2	Discovery and exploration	Questions, clarifications, elaborations
3	Negotiation of meaning Co-construction of knowledge	Joint meaning making Shared understanding
4	Testing ideas Revising ideas	Testing & revising against personal knowledge
5	Awareness of new knowledge	Metacognitive statements Reflections Summarising (to reflect consensus or diversity of perspectives)

While the class travelled as a group to four selected countries, the teacher was engaged in individual exploration of other parts of the world. The weekly synchronous class was the “campfire” around which the students gathered with the teacher as listeners to the tales of their peer leaders, before turning their attention to the teacher in the role of storyteller. In practical terms, the teacher’s input enriched the learning journey by increasing the number of countries the class could “visit” in the short period of eight weeks. In terms of class dynamics, it subtly blurred the distinction between teacher and learner. This was to become a positive feature of the course and to lead to “a model in which the old teacher/student relationship [was] replaced by learning together” (Papert, 1999).

8. Teacher-as-learner

The teacher-as-learner role became more pronounced when the class returned from their individual wandering. As indicated earlier, the teacher's digital literacy was quite basic, but, aware of the students' superior prowess in this domain, she encouraged them to work in whatever medium they felt they could best articulate their stories. She asked only that those who chose the digital option would provide her with a “dummy's guide” to their selected medium to help her create an assessment rubric. Half the class – four students – were in this category. The learning curve for the teacher was steep and exhilarating, as her mind and senses were drawn into stories told in the form of movies, a Glog,

and a Prezi. In different ways, these digital formats vividly captured and imparted to teacher and students alike not just the factual, but the emotional reality of the social fabric and the education systems of the countries visited, illustrating that “technology is a language in which powerful ideas can be expressed” (Papert, 1999) and multiple perspectives dramatically conveyed. Explaining his choice of medium for sharing his story of the “level of chaos for students and educators” in a particularly troubled part of the world, one student wrote: *No amount of data on politics, economics, or governmental oversight can ever adequately paint a picture of turmoil in areas currently afflicted by poverty, injustice, and violence, [so] I assembled a Glog which can be found below. The videos and songs paint a picture that, at least to my eyes, [is truer] of the daily world experienced by those under immense political and social pressures.* From the teacher’s point of view, the discovery of the Glog with its apparently chaotic collage of videos was enlightening and invaluable. It seemed a near-perfect match of content and expression in that it captured visually the chaos which the student wanted to convey and which was authenticated by the scenes in each video and by the “insider view” of the people caught up in the chaos. The fact that the videos could be viewed in any order without diminishing the impact also made the Glog a most appropriate form of expression for learning by wandering.

The student who used the Prezi explained her choice during a synchronous Wimba class by saying that, having bought into the freedom and the curvilinear approach of learning by wandering, she wanted some way of expressing herself in a non-linear, more impactful way than by the linear format of text or PowerPoint. A classmate with whom she discussed this introduced her - as part of our shared learning ethos - to the Prezi which is curvilinear in design, allowing the user to zoom as appropriate either on the big central picture in view on the screen or on the smaller pictures or texts surrounding it. This layout proved in effect to be a metaphor for her theme of the “mosaic” of the country she was describing. The “dummy’s guide” provided by one of the “movie makers” gives an idea of the complex and time-consuming process required by her choice of medium: *I used Google docs to create slides of relevant ... information that I researched and read about both in books and online. I took screenshots as jpgs and inserted them into iMovie. Also looked for images that would enrich the movie. Then I worked on editing, cutting, cropping and animating everything. The last step was to research free Creative Commons podcast music and create background sound while editing for volume and ducking in and out.* The same student remarked ruefully that it would have been so much simpler to write a paper, but she felt the movie was a more powerful form of expression. It should be stressed at this point that those students who did choose to write a paper also exploited their medium and enriched the learning of peers and of the teacher – albeit more within the latter’s comfort zone!

Peer response to the digital stories was uniformly enthusiastic. The following is a typical example: *I am so honoured to have such a talented cohort! You guys have given me so many great ideas for future projects. What a great way to teach kids about other cultures - instead of PowerPoints or lecture! Wow!* These and other similar responses to the experience of sharing and learning with and from one another might perhaps give some indication of the strong element of what Guth and Helm (2010: 16) call the Web 2.0 philosophy, a “relationship revolution” driven by “ideals such as sharing, openness, collective intelligence, flexibility and collaboration”.

9. Teacher 2.0

Dooley (in Guth and Helm, 2010: 277-303) speaks of “Teacher 2.0” whose teaching approach is learner-centred, not technology-centred, who focuses on being able to use available technology as a means of collaboration and development of shared knowledge and of equipping students with the skills needed for professional life in today’s globalised world. She also depicts some of the traits of Teacher 2.0. Among these are a willingness to experiment and take risks, to integrate technologies that are more familiar to the learners than to the teacher, and effect a “symbiosis of truly collaborative learning ... by actively involving teachers in the learning process and students in the teaching process”. Teacher 2.0 also uses technology to provide opportunities for students to take ownership of the learning process. Above all, Teacher 2.0 makes the required shift from the transmission education paradigm to the “mutual sharing of knowledge-building between teacher-student, student-student and student-teacher”. Dooley asks bluntly: “Does Teacher 2.0 exist?” The experiences of the lead author as teacher in the e-learning course which is the subject of this paper would suggest that it is only if this type of teacher does exist that e-learning can begin to reach its transformative potential.

10. Teacher as sage at the side

In moving away from transmission education in e-learning, the teacher has also to move away from the traditional role of being sole repository of learning and to seek a role that best empowers the e-learner. This is frequently seen as moving from teacher to facilitator, from sage on the stage to guide at the side. The role adopted by the teacher in the case of the e-learning course described in these pages was rather that of sage at the side, setting the students free to learn by wandering and take ownership of their learning, scaffolding them when necessary, but always endeavouring to “bring wisdom, perspective and [experience] to the learning” (Papert and Caperton, 1999). In this way, it becomes possible to move toward the goal that Hargreaves (2003) suggests is the ultimate achievement of the teacher - not to deliver learning, but to develop learners. This is exactly how the authors of this paper understand transformative learning – developing learners who love learning and for whom it becomes a lifelong commitment.

11. Students as critical friends

Students also responded as critical friends to the teacher’s request for suggestions for improving the course. In general, these took two forms. One, surprisingly, was a suggestion to do more learning by wandering along the “road less travelled by” – from Robert Frost’s poem which we had also made our own. One student felt that all would have benefitted from having “more room to wander” as this might have led to some interesting tangential discussion. The second suggestion, unsurprisingly, was to introduce other technologies, including Skype or videoconferencing. Ironically, the teacher of this course is a champion of the use of videoconferencing in education, has used this medium in previous e-learning courses, and had hoped to try Skype group conferencing with the first cohort, but was frustrated by time and other logistics. She occasionally used the video feature in Wimba, but it functioned only on a one-to-one basis and tended to slow down the pace of the class. This was more thoroughly explored for the next iteration of the course. The ideal would be, as the same student suggested, to seek videoconferencing opportunities with people from the target countries. Another very useful suggestion that will hopefully be acted upon in a future iteration was to “encourage more PBL (project-based learning) during the Wimba sessions, such as break-out activities, online whiteboard activities, etc”. As the course continues to evolve, it will obviously be important to incorporate the use of desktop sharing and to place more emphasis on integrating Web 2.0 technologies into the Blackboard management learning system. Ideas suggested by the co-author include screen capture video software for digital storytelling, desktop application sharing tools to enable future students to begin to build a timeless and virtual “wandering library” to share their experiences as a teaching tool for those that follow them, and possibly Twitter to support community building among students and, if appropriate, to create unique user names to allow them reach out to the web in search of “virtual tour guides” for them as they wander.

12. The second iteration

The second cohort, which consisted of seven doctoral students, was broadly similar to the first, in that they were mature professional educators, holding responsible positions in their field, and had considerable experience of e-learning. The main difference was that they were geographically more dispersed than the first cohort. Although the majority were Americans living in Pennsylvania, one student lived in Virginia, and one, a Chinese academic, joined the class from his home in China. This somewhat unusual mix offered us both opportunities and challenges which helped shape and enrich the course in ways we will discuss briefly.

A major challenge was to establish a solid foundation for the community of learners for this more diverse group in order to allay feelings of isolation or alienation and to ensure a high level of emotional engagement with learning. The teacher’s belief in “the centrality of emotion to the process of learning, specifically ... of e-learning” (O’Regan, 2003) had been reinforced from her experience with the first cohort, as evidenced in the student comments cited above. These demonstrated that emotion is present in e-learning in the relationship between teacher and students, in students’ relationships with one another, and in their relationship with the learning process, and that positive emotions, such as enthusiasm, appreciation, a feeling of belonging, of pride in one’s own and in the group’s achievements, foster good learning. To promote this from the earliest possible stage, in advance of the starting date of the course, the teacher sent a welcome email to the cohort introducing herself, giving an overview of the course, stressing that she wanted this course to be a “productive

and enjoyable learning experience” for each student, and pledging that she would do everything she could to make it so. She also invited the students to let her know any time during the course if they had any suggestions for improving the learning process, or if they individually had issues with any aspect of it for either personal or academic reasons. Her final message to them at this early stage was: “I want your voice to be heard as well as mine”. This provoked a warm response. All students replied appreciatively and with enthusiasm, telling a little about themselves, and expressing interest and excitement about the course. An additional personal email to the Chinese student elicited a charming acknowledgement of the teacher’s “considerate concern about non-American student”.

Another strategy that proved very effective in strengthening the affective element of learning in the course was the adoption of a suggestion made by the first cohort to use Skype as a regular means of communication. The students eagerly responded to the invitation to have a one-on-one tutorial by Skype. This face-to-face encounter significantly mitigated any sense of isolation, and helped give each student the feeling of being “in the front row”, which they welcomed, as both the cognitive and non-cognitive aspects of the course – and the link between the two – were explored in a leisurely but focused manner. The agenda for the tutorial was a simple one – to invite the student to share how he/she was experiencing the course, to put forward any suggestions as to how that experience might be improved, and to deal with any specific problems, academic or personal, that had arisen, and might negatively impact on their learning. A measure of the trust that was created between teacher and student was the sharing by some students of external stress factors. These were discussed, and where possible, measures were put in place to alleviate the pressure. This was an important issue for the teacher, who believes firmly in taking into consideration, where appropriate, the non-academic issues that impinge on the well being and the joy in learning of adult students. There was also great humour in these encounters, as students relaxed and talked of their families and their lives outside academia. The Skype meetings also greatly enhanced the relationship of each student with the teacher, and consequently increased their sense of belonging and their motivation. It helped both teacher and students to develop a stronger social presence – the ability to project themselves socially and emotionally as “real people”, thereby greatly enhancing the human dimension in the e-learning environment. Students were given the opportunity to initiate further Skype calls as required or desired. The Chinese student, who found that these virtual face-to-face meetings greatly enhanced his feeling of being part of a community of learners, availed happily of this opportunity. He and his US partner also made use of Skype to prepare their “leading learning” assignment – a presentation to their peers on education in China.

This presentation was a superb example of the flat world in education. It was prepared by electronic communication – Skype, email, and the special small group forum created on Blackboard – and was delivered jointly in the Wimba classroom by a “leader” from China and one from the US. It captured the imagination of the students, some of whom explicitly stated on the discussion board their awareness of the enrichment of the course brought about by such trans-global collaboration, and by the presence in their cohort of a Chinese educator who, as one student expressed it, could “provide [us] with ... insights about [his] country’s education system and personal experiences”. Another student wrote: *Our cohort is lucky enough to have [someone] who not only studied in China, but is also actively involved in the education system in China [within a private university]*. The students also appreciated that, through the discussion board, they were given the opportunity to relate what they were learning to the real life education issues in that university.

The challenge of being a leader of learning was eagerly taken up by all the members of this cohort, some of whom seized the opportunity to “learn new software tools and present our work in a creative and engaging manner “. One student, in particular, who learned about making a movie and who used this medium to share the story of her individual learning journey, derived great satisfaction from contributing to “an inspiring environment for scholarly thoughts to be dynamically presented and preserved in a digital repository for the enrichment of future cohorts”. Another student used facebook to source current, authentic information for his teaching on education in South Korea. He contacted a US friend now teaching in that country. The friend in turn enlisted the help of some South Korean educators, who also engaged through facebook. Together, they put flesh on the dry bones of factual learning, and dealt with many of the comments and queries that were beyond the scope of the student leader of learning, and were far beyond the ability of the textually - or Internet – sourced information to give the “feel” of teaching and learning in another country.

Surprisingly perhaps, for this cohort, the discussion board played a major role in both the social and cognitive elements of their e-learning. A strong social presence was evident in the lively exchanges as the students co-constructed knowledge. In an academic context, social presence may be understood as “creating a climate that supports and encourages probing questions, skepticism, and the contribution of explanatory ideas. Sustaining critical thinking and discourse requires a sense of belonging ...” (Garrison, 2011: 32).. One student expressed this simply: *For me, the highlight of this portion of our journey was on the class discussion.* He particularly liked how easy everyone found it to *express our opinions and challenge those of others.* Another student considered the matter in greater depth. *A final reflection from the group discussion is the passionate and engaging dialogue that ensued between us. Each of us demonstrated our willingness to continually “raise the bar”. We did so through compelling arguments and with credible sources to further our metacognitive process. As I now have come full circle in this portion of my academic journey, it is with the appreciation that learning is indeed a social process where through the postings of my colleagues I have entertained new perspectives, new thoughts and ideas, and have considered hypothetical, alternative solutions to improving education on a global platform.* The summary and evaluation - based on the online discussion content analysis model - made by the leaders of learning of the discussion points following the study of each country was found to be “of particular value”. One student commented in a final reflection: *[We] effectively created a digital repository of the key insights and contributions made by everyone. This blended work when knitted together over these past eight weeks has resulted in a unique tapestry of our shared global insights and personal contributions which has enriched our wisdom as future members of the Professoriate.*

The concept of learning by wandering found particular favour with this cohort, who appreciated the freedom and flexibility it gave them to learn in a non-linear fashion. One student expressed this succinctly: *Our wandering journey has been a wonderful learning experience. Thank you again for this very insightful, creative and engaging approach to constructing new knowledge.* Our Chinese student felt strongly that *learning by wandering is an effective teaching method. This method can motivate learners to involve in the learning environment by wandering without boredom. The instructor makes a design of the journey to meet the learners’ needs. Learners can choose different routes and different combination formats to finish the journey collaboratively. The ... guide leads the journey according to the requirement of the syllabus.*

13. Conclusion

How did this course, delivered within a traditional LMS, endeavour to embody the Web 2.0 ethos? It sought to do so, firstly, by highlighting the importance of the teacher’s attitude and the impact of this on students (Katsifli, 2010). From the outset, attention was focused on the course teacher’s high expectations of quality e-learning and awareness of importance of the human dimension, with emphasis on building and sustaining meaningful relations with students, so that each felt valued and supported. Secondly, the focus was on the need for appropriate pedagogy, leading to a paradigm shift from transmission teaching to student-centred and student-led learning, and scaffolding students to be leaders of learning. Thirdly, sustained effort was made to build a learning community with strong emphasis on collaborative learning and sharing of resources. Fourthly, the teacher’s role was defined as “sage at the side”, offering wisdom, experience, and support to enable students reach their next level of development. Additionally, the open mind aspect of the underpinning concept of learning by wandering was stressed in order to facilitate the necessary change of mindset. Finally, Blackboard and Wimba were used as shared learning spaces for collective intelligence, and creating space for students to use Web 2.0 tools for creative expression and sharing of learning.

Did this process lead to a transformative e-learning experience for the students? Written feedback from them would suggest that something of this nature was experienced by at least a few. In an email to the teacher one student in the first course wrote: *I thank you for being the kind of teacher that allows me to grow [not just] as a student but as an educator!* As part of a Blackboard discussion about “teaching to the test” and the consequent lack of ownership of the learning process, a student’s post read: *I think that is why [the] idea of wandering ... and student generated learning is so much more meaningful.* And from the student who chose to present her final assignment as a “Jog”, a tool that enables multiple websites to be presented as a package: *For the final reflective project I would like to put together a brief synopsis of learning from this class: A Jog on the Web (wandering). I would like to use this technology because it will help me in the future [to] refer back to some of the learning and contain the pertinent links to information we learned about.* In the introduction to the ‘Jog’, she states:

Like Ulysses, we as educators must not remain stationary, but wander and learn from the world around us. She also includes (with attribution) in her 'Jog' the wandering tales of some of her peers and she posted a note to them on the discussion board: *Thanks to the class for sharing their learning this semester! ... It has been a blast! I am still adding to the learning from this course but here is the start of my Jog.* Students also welcomed being given the leeway to learn [and to share their learning] in the manner that [suits them] (personal email from a student). Another student wrote to express appreciation of the teacher's willingness to push the envelope with Web 2.0 technologies. Above all, students valued the teacher as sage at the side. One student expressed this in her final email: *I appreciate all of the wisdom and insight you were able to offer as you guided us through our journey. ... It truly was a spectacular learning experience!* And a student in the second iteration offered this perspective: *I have gained new, deeper and clearer perspectives on strategies and techniques for teaching and engaging students. Cultural aspects and beliefs are becoming more relevant to the content materials I want to share with my students. This wandering experience has profoundly changed me as a teacher. And because of it, I will be a more effective and enlightened educator.*

The literature reflects the tension between two opposing views of the LMS. The first is the widely held view that, even with the addition of Web 2.0 tools, an LMS remains essentially an electronic replication of existing practice. The more recent view stresses the transformative potential of LMS mediated learning when it is informed by the Web 2.0 ethos. The two iterations of the e-learning course described in this paper support the latter view. While very much a work-in-progress, it still serves to illustrate that the quality of e-learning is determined not by simply adding Web 2.0 tools to the traditional environment, but rather by embodying the Web 2.0 mindset within that environment. In this context, the case study is offered tentatively as a contribution to the development of a framework for transformative e-learning within a traditional LMS.

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