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Space-place shifts: is the digital space a learning place for commencing students?

Jill Lawrence

University of Southern Queensland, Toowoomba, Queensland, Australia
lawrence@usq.edu.au

This paper explores a shift generated by one of the change factors impacting on the Australian higher education sector: the increasing implementation of technological engagement and e-learning. The paper documents a case study investigating whether the digital *space* can constitute a *place* for learning for commencing students. The case study focuses on a first year core course, *Building Professional Nursing Attributes A*, offered as part of the Nursing Program at the University of Southern Queensland. In 2012 the course moved from an on campus to an online mode. The paper documents the design, development, delivery and evaluation of its conversion to online delivery. The paper also positions these pedagogical decisions and their outcomes in practice against the wider change forces driving both the higher education sector and students' university experience. The case study's findings show that although there are sceptics, principally among the course's diverse cohort of students, as well as initial tensions, its digital space is a place where commencing students can begin to empower themselves; a place where they can learn to contemplate, converse, reflect, and create and disseminate knowledge as they make their transition to the new university space.

Keywords: Digital learning, first year experience, student diversity

Introduction

I don't think this way of learning has many benefits, the main benefit I see is that the Universities can still charge a fortune for their degrees yet there is little to no face-to-face teaching, it seems a win-win situation for the universities. As students, most of us have lives, work and families, and navigating our way around sites designed by people who think they are very clever is tiresome, not to mention a complete waste of valuable time. At the end of all this we will all be wonderful nurses who can put up a Power Point in no time flat, navigate our way around ridiculous sites whilst caring for the sick. My reflection may seem negative and that's because it is, I am still coming to terms with what is required of me to get that piece of paper that says I can do what I am already doing.

This student quote is evocative of tensions arising from research and policy directions in contemporary higher education (HE) and their often inadvertent consequences. One tension stems from the increasing implementation of technological engagement and e-learning and its impact on the student experience. A further tension emanates from the links between economic expediency in HE and increased student access with the consequence that students are becoming more numerous, diverse and forthright about getting value for the money paid (Scott, Coates & Anderson, 2008). An additional tension derives from Devlin's (2011) notion of socio-cultural incongruence which conceptualises the differences in cultural and social

capital of diverse students, for example from low socio-economic status (SES) backgrounds, and the high SES institutions in which they study. There are also remnants of the shift to move nursing from hospitals to universities (some thirty years old now), an older space-place shift, and one reflecting ongoing needs for highly skilled and knowledgeable human capital along with increased professionalism.

The public space

Woven together the tensions confirm that HE is operating in a highly volatile context, a consequence of rapid globalisation and intense technological change forces. These forces challenge assumptions about work, productivity and international demands for knowledge, skills and resources. There are equity demands about wider access to higher levels of training and HE for personal growth and vocational imperatives as well as demands to advance national goals of innovation and technology in a changing world. At the same time, government scrutiny and reporting are escalating and external quality audits are in place (Scott, Coates & Anderson, 2008). Funding per capita is decreasing while institutions are becoming more competitive and commercial, focussing on revitalising their business cases. At the same time rapid developments in communications and information technology have made possible approaches to learning unimagined 30 years ago (Scott, Coates & Anderson, 2008). For instance, there is a proliferation of more diverse sources of education and an increasing blending of various technologies, particularly digital, to deliver, manage and support this education. There are massive open online courses (MOOC) and open educational resources (OER), the impact of which are said to transform, if not threaten, traditional university spaces (Smith, 2012).

Reinventing institutional spaces

These change forces act to reprioritise institutional spaces as universities strive to reinvent themselves in attempts to attract more students, maintain competitive relevance, and build distinctive identities. This re-positioning (re-branding) has not only caused institutions, but also regularity bodies, to restructure. This re-shaping often coincides with reductions in space: from the Australian Learning and Teaching Council (ALTC) to the Office of Learning and Teaching (OLT) and from a public (invested) good to a private (user pays) good. There is also the shift from the traditional view that core university work resides, and is lead, in faculties to a view where academic faculties are amalgamated into a large division which is just one of many administrative divisions sharing the institutional 'work', a space where learning and teaching research imperatives are overridden by commercial (some say sustainable) imperatives.

Traditional academic spaces are likewise being re-shaped, physically and virtually. Both excite the imagination. There are innovative 'edgy' physical spaces like Glasgow Caledonian University's Saltire Centre and the University of Queensland's Collaborative Teaching and Learning Centre, spaces where colours, lights and seating speak to informality, variety and creativity. Then there are emerging digital spaces like MOOCs, OERs, social media websites and online virtual environments. It is to be noted though that these spaces are not mutually exclusive; each can complement and transform the other (computer booths in the edgy hubs).

These shifts in space have consequences for pedagogy, the place where students and teachers and context intersect. Learning and teaching is shifting from laboratories to virtual worlds,

from traditional libraries to database repositories, from on campus classes to online forum discussions and from content heavy pedagogy to process based outcomes. There are, in turn, repercussions for the student experience.

The student place

The shifts and change forces constitute big picture thinking. At the other end of the continuum of the HE experience however, is the image of an individual student, in their own place, writing a reflection about their first semester of study at a regional Australian university. The student could be a Sudanese or Congolese refugee, grappling with unfamiliar keyboard skills, an experienced Assistant in Nursing (AIN) working fulltime in a local aged care facility and frankly unmoved by theoretical discourses, a generation Y school leaver from a regional area wanting immediacy of experience, an international student from Saudi Arabia, Nepal, Korea and a host of other countries unfamiliar with Western learning and teaching practices, or a former masters student or defence force veteran, blooded in overseas battles, both seeking to change their career paths. Yet they all meet in the same space, a regional university, and in the same place, a first year online core communication course.

This paper reports a research study exploring students' experiences of the shift from an on campus to an online pedagogy in the first year nursing course, *Building Professional Nursing Attributes* (CMS) conducted at the University of Southern Queensland (USQ). Firstly, it documents changes in its academic practices. Secondly, the evaluation methodology is outlined before evidence collected of students' experiences of learning is interrogated. Ultimately the paper investigates whether the digital space is a place for learning for commencing students, positioning the discussion against change forces impacting HE, its institutions and the student experience. Can the contemporary university, with its digital *space*, be a quintessential *place* where a diverse cohort can embark on their learning journeys, a place where they can begin to contemplate, converse, reflect, and create and disseminate knowledge?

The course

The aim of the course is to develop students' academic, information, learning, research, communication interpersonal and reflective literacies as well as assisting them to begin their professional e-portfolios. Its companion course, *Building Professional Nursing Attributes B* (MAT), is charged with the responsibility of building students' numeracy and computing skills directly linked to their degree and to their later professional practice. The previous iteration of USQ's nursing program had been conducted since 2006. In 2012, however, the program was offered for the first time in an online mode, in some cases augmenting its on campus delivery and in others replacing it. While MAT and the parallel nursing courses are offered in both online and on campus modes, CMS is offered online only, using an online pedagogy based on e-tivities and discussion forums (Salmon, 2011) and delivered via the university's Learning Management System (LMS).

Student diversity was the impetus for CMS pedagogical design. First, to incorporate a holistic and collaborative interdisciplinary approach (Davis & Devlin, 2007; Woods, 2007), CMS was developed in inter-disciplinary collaborations between the Nursing Department, the Faculty of Sciences (mathematics and computing skills), the Faculty of Arts (academic literacy and

communication skills), Learning and Teaching Support (LTS) (pedagogical reinforcement and learning and teaching guidance), the Australian Digital Futures Institute (ADFI) (online pedagogical advice) and the library (information literacies). Second, to empower students, CMS encompassed a student centred curriculum (Kember, 2009) and embedded and scaffolded practices (Keimig, 1983; Pea, 2004). Third, to facilitate students' success, a critical literacy perspective was incorporated. This perspective envisages transition as a process of gaining familiarity with and demonstrating key university literacies and discourses (Lawrence, 2005). The design also incorporates Bourdieu's (2001) view of capitals and Kift's (2009) transition pedagogy so that students are able to reflect about their previous learning *places* before engaging new university literacies. Ultimately CMS makes explicit the tacit expectations inherent in the university *space* so that commencing students can sculpt their own *place* for learning.

Online design

The carpe diem process (Salmon, 2011) was used to redesign CMS. It was selected because it provides a structured framework for course teams to understand, design, develop and implement e-learning designs grounded in discipline practice; to construct a *place* for learning through the digital *space*. The interdisciplinary team, including learning technologists, librarians and nursing program members, worked through a number of collaborative tasks, including blueprinting, story boarding, scaffolding, networked learning (using Salmon's 5-stage model), e-tivity development, peer reviewing, and assessment aligning to design CMS's mission, learning outcomes and assessment. Participation by nursing team members (reality checkers) was sought to ensure the outcomes, activities and assessment were student-centred, engaging and appropriately scaffolded to meet the anticipated abilities of students.

Online delivery

CMS's content was peeled right back. There are no study modules, no textbooks and no selected readings. Instead there are short, weekly video-lectures and e-tivities (see Figure 1). Each weekly e-tivity is formative, explicitly linked to assessment. Students are placed in a forum group (n=20) variously named the Resuscitators, the I V Leaguers, the Beta-Blockers, etc, each with an online tutor responding to students' posts individually and through summaries (Salmon, 2011) thus ensuring immediate and constant feedback.

E-tivity 1.1 My learning skills, style and approach



Suitcases", [masochismtango's photostream](#), Creative Commons licensed (Attribution, Share Alike)

Sparks 1, 2 and 3

<http://www.youtube.com/watch?v=dGCJ46vR9o&feature=related>

This is a you-tube video of students today (Kansas State University 2007) Do you relate to any of these views?

You are entering into a new university culture and, just like the man in this you tube video, you might have to get used to a new way of doing things <http://laughingsquid.com/tech-support-in-the-middle-ages-how-to-use-a-book/>

Just as our children are having their own expectations about reading <http://www.youtube.com/watch?v=aXV-vaFmQNk>

Purpose

To gain insight into my strengths and weaknesses in learning and to check whether they align with university requirements This knowledge will help me to adjust to university expectations.

Task

Complete a learning profile questionnaire, reflect about the feedback you receive and post an entry to your group forum

Instructions

- Complete the undergraduate learning profile questionnaire (this should take about 20 minutes) <https://psych.sci.usq.edu.au/ols?SLP2012>

- Read the feedback you receive

- Write a 100 word summary describing what you found out about yourself from this feedback

- By Friday week 1 post onto your group forum:

1. your name and something about yourself,
2. the reason why you are studying nursing
3. one learning strength you possess which you think will be useful for your study this semester
4. a support or source of help you have in place (or in mind) if you need it this semester (for example your partner, the learning centre, the lecturer)

Response

Your online tutor will summarise your posts and add suggestions by Monday week 2. You might also like to reply to another post in your group

Link to assessment

Your reflection about the Undergraduate Learning profile feedback is a requirement for assignment 1
The forum posts contribute 10% to your online engagement marks in assignment 1.

Figure 1: Sample of a CMS e-tivity

Learning management system

CMS's flexible e-learning space is a multi-modal in-house content creation system which includes multimedia material and the interactive discussion forums. All assessment is submitted and marked electronically. The e-portfolio assignment uses the Mahara platform.

Assessment

CMS assessment includes two assignments and forum participation. Assignment 1 includes four tasks building on the e-tivities: two reflective paragraphs, one on students' learning strengths and another reflecting on interviews conducted with experienced students; an academic literacy exercise incorporating a thesis statement, main points, referenced paragraphs and reference lists (on a clinical aspect of hand washing); and an article selection (on hand washing) and evaluation exercise. Assignment 2 is an e-portfolio where students reflect on their semester 1 experience, their development of first a nursing code and then a graduate quality and their capacity for technological engagement.

Case study methodology

The methodology included continuous evaluative processes applied during each design, delivery and evaluation cycle. A standard method of evaluation and program development (Taylor & Galligan, 2002, developed from Guba & Stufflebeam, 1970) was used including both quantitative and qualitative data collection techniques.

The student perspective is the focus of this paper (see Table 1). While evaluation cycles began in 2006, in terms of the new online design, two cycles have been undertaken: in 2012 in semester 1 (n = 365) and semester 2 (n = 153).

Table 1: Relationships between the evaluation strategies and stages in the course design

Item	Evaluation Strategy	Pre-program Design Stage	Program Design Stage	Program Delivery Stage	Program Conclusion Stage
The student perspective					
1	Use of feedback from previous student surveys	✓	✓	✓	✓
2	Reflections in assignments and the portfolio			✓	✓
3	Student Surveys			✓	✓
4	Official Student Evaluations of Teaching				✓
5	Online discussion and forum groups			✓	✓
6	Second and third year student cohort surveys (yet to be undertaken for the 2012 cohort)				
7	One-on-one sessions with students to investigate student learning			✓	✓

Within the study, a phenomenological approach (Jeffers, 1998) is taken to understand the lived experiences of students as they become more academically prepared. In the design stage, use was made of feedback collected in previous research (Item 1). Continuous evaluation, unsolicited feedback presented in emails, forum discussions (Item 5) and one-on-one sessions (Item 7) were collected in the delivery stage. Two independent formal student evaluations are also conducted at the conclusion of each cycle: one designed to address program specific issues (Item 3); and the other, the standard university course quality survey (Item 4). Continuous feedback is obtained principally from the e-portfolio (Item 2) where students reflect about how they bridge the divide between their pre-university spaces and their university and nursing spaces.

Findings and discussion

The continuous evaluative processes at the heart of the methodology yielded a wealth of data about the students' online experiences. Though not asked specifically about space and place, the findings document students' expectations, anxieties and experiences of learning; whether CMS provides a place where they can reflect on and assess their learning.

Not my place

Clearly the quote which began this paper indicates that, at least for one student, CMS was not that quintessential place of learning. The student's frustration is evident, linked to a place of disempowerment (displacement) generated by global change forces including the recognition, particularly by students, that universities use more flexible and expedient delivery strategies. Other students reveal tensions in contemporary study, a place where students routinely juggle work, families and study (James, Krause, & Jennings, 2010):

Mainly non participation was a culmination of things. Personally, I was working full time, looking for a house, travelling sometimes 2 hrs a day for work and uni and the online subjects were the ones that suffered for me as they were easier to "forget" about (portfolio).

Another student complains from a place where on campus classes are de-rigour, their absence enough for students' non attention:

i would prefer CMS to be a face to face class, it is not on my timetable as it is online so i really have to try hard to actually remember that CMS is still there (portfolio).

A minority decided not (or neglected) to engage in the e-tivities and forum posts at all, despite their role as formative assessment: in semester 1, 9% (n=33) with a grade average of 59.8%, and in s2, 13% (n=20) with a grade average of 62.75%. When asked, students explained that they felt they could do the assessment without completing the activities while others had been disengaged by forum participation.

When the assignment came I thought I would be fine. I did not think that missing a few postings would be a big deal. I was very wrong. For the tasks I had done forum postings for, I did not have an issue but as I got deeper into the assignment I found it harder and harder. I regretted not doing the tasks (email).

This evidence confirms Morris' (2005) findings that in terms of online engagement, unsuccessful students were far less active in participation than successful students. Poellhuber and Karsenti (2008) suggest that online engagement is a particular problem for some students. The CMS experience confirms this finding. That non participation could be tracked and correlated with assignment failure and/or lower grades is a positive step forward however which meant that I could also query the students concerned. As a consequence most then participated in the forums for assignment 2 and their testimony, with permission, used to empower students the next semester:

I did not participate in majority of the online forums for CMS1008 and I now regret that, as it showed in my result. For Assignment 2, I am not willing to make that same mistake again and have been participating in the forums. I now find that reading other students' posts helps me with my studies. I learn something new every time and enjoy receiving feedback and advice (email).

An unfamiliar place

Unfamiliarity with the online space was apparent in students' evidence. International students were confronted by completely new literacies:

International students have to face different studying environments. I had never used computers for my studies before. It is funny but I was really shocked when I saw so many computers in USQ (portfolio).

Mature age students also found the online environment daunting:

I only completed year ten schooling many years ago and a lot of what I had to learn was either new to me or I haven't touched it in a very long time. I was very apprehensive and overwhelmed with what I had to learn. I also found it very difficult to learn how to use a computer at the same time trying to learn the subject as all of the work is done by computer (forum).

On line learning was even unfamiliar for seasoned students, attesting to the intense technological change taking place:

Uni was Monday to Friday, lectures, tutorials, practicals, 8am to 6pm with a few lectures running at night till 9.00. Everyone loathed the 6-9 pm lectures as you struggled to stay awake. You were lucky if you had a couple of hours off each day. But at least you had the weekend free (even if you should have been studying or at the library). Now I go to Uni one day a week. Can access everything on line, e-mail lecturers, get feedback from students on forums, and database searches are a dream compared to slogging through indexed journals or through microfiche or standing for hours photocopying a ragged and battered journal that everybody wanted. (forum)

I think it also made me reflect on my previous uni experience. There was nothing online and the word Google wasn't part of the lexicon like it is now (forum).

These tales of unfamiliarity debunk assumptions about digital literacy: that students' technological experiences are more or less homogeneous and that most, if not all, are digital natives (Bennett, Maton & Kervin, 2008):

There is this common thought that, because you are young you automatically know how to use a computer, how deceiving? (portfolio)

Second, the evidence contests the notion that students have a sophisticated understanding of information/communication technologies (Buckingham, 2007) and that core technology based skills readily translate into the learning space (Kirkwood & Price, 2005):

I found it interesting that in the survey the only question that I would classify myself as an 'expert' was the one relating to face book.

Though I use face book and other social networks often I was never confident when it came to posting or commenting on others views.

While aversion and unfamiliarity were present, students' growing mastery was also present, as the next section illustrates.

A transitional place

There was overwhelming evidence confirming students' increasing confidence:

My first thoughts of writing on an open forum at university were one of horror. I had to put these thoughts aside and just put myself out there if I wanted to achieve the marks. Since doing so I have embraced the opportunity to learn from the forums (portfolio).

At first I was hesitant to post things onto the forum as I was afraid that I would post the wrong thing, or be criticised for what I posted. Then I saw that there was no "right or wrong answer" and i became more confident in my postings (forum).

A number of design features contributed to this transformation. Online tutor/peer support were crucial as survey data illustrates:

The ongoing support from my online tutor and peers has really motivated me to stay on track and do well.

The accessibility and flexibility of the on line environment facilitated students' engagement:

Initially i was confused but now i have felt that online learning is actually beneficial. It provides team learning and there are no geographic barriers for the students. We are able to access the course from anywhere and it provides every student to contribute by posting their opinions. I am really very happy to experience online learning (forum).

Distance students reported that online delivery helped them learn by reducing their isolation:

For me technological engagement in the course has made my dream to study nursing a reality and has removed any concern I had about feeling isolated as a distance student (survey).

Forums/e-tivities facilitated students' learning by connecting students with each other:

For me the forums have also been an excellent way to interact with fellow students through the sharing of opinions and feedback. It made me feel like I was learning collectively with other students, much like a classroom situation (portfolio).

The pedagogical approach, for example the e-tivities, also facilitated learning:

The incorporation of the study desk and the use of short e-tivities and YouTube clips have provided a positive experience for me because of the variety, which tends to keep my attention (survey).

The formative assessment also helped students' transition:

Once I handed in assessment one for this course, I realised that the online activities were worth the effort for the marks gained by completing them (survey).

CMS's reflective process assisted students to gauge their progress. A digital literacy survey conducted as part of an e-tivity confirmed this progression:

Since starting in July I have participated in a WIMBA session, produced a PowerPoint presentation with voice over, started a fabulous E-portfolio, got valuable feedback from forum postings and submitted assignments via EASE. I have done all this in just 8 weeks (forum).

Though transformation was evident was there support for the assertion that CMS had become a *learning place* for many students? The next section addresses this question.

A learning place

Contemplation was present in students' observations:

I have developed a pattern of self learning which is spending a majority of time researching, reading, reviewing and developing documents etc on the computer.

It was after I started this course that I explored a whole new way of learning. It requires me to be more independent and responsible.

Reflection was palpable:

After completing the survey, I was amazed at how some of the questions were rated 'not confident' to 'very confident'.... I had a think at the people that could be filling out the survey with little or no confidence in their computing skills. Society today is fast becoming reliant on technological advancements, and I, fresh out of school, have to understand people who might not have the opportunity to learn. So my insight is to be mindful and proactive about helping those people cope in a technological society.

Conversation, courtesy of the forums, was clearly evident:

I find this interaction stimulating. It is my virtual classroom where I get to socialise and find out important information or read helpful hints.

I have grown to love the forums which are a great portal for information and guidance and enjoyed the way that CMS1008 was delivered online.

Knowledge creation, the formation of new ideas through interactions between explicit and tacit knowledge in individual human minds, and dissemination, the increased awareness, ability to make informed choices and the exchange of information (Nonaka & Takeuchi, 1995) were also perceptible. This portfolio reflection constitutes one student's experience of creating knowledge, through mastering her learning context, and disseminating knowledge:

I was a little apprehensive about committing to online learning. By completing the weekly e-tivities and tasks, I have learned how to participate in an online conference, I have highly tuned my academic writing skills, learned to use databases for research and experienced computer marked assessments. On reflection, I believe that online learning is the best way for me to complete my education, as it offers extreme flexibility in respect to 'class time'. The personal aspect of learning is not lost as there is quite a bit of engagement with others in the forums. Overall, I am much more confident with online learning.

Conclusions

The case study findings personify the highly volatile context that is contemporary HE by illuminating the change forces affecting its traditional institutional and academic spaces and the tensions created for pedagogical design and the student experience. The nursing program at USQ, for example, exemplifies equity demands for wider access to higher levels of training and personal growth with its very diverse student cohort while the program's conversion to an online presence represents the intense technological change and rapid commercialisation taking place in HE.

Students' responses initially reveal frustration, unfamiliarity, denial, neglect and blame (*not in my place*). The data also demonstrate that adjustments are involved that are neither easy nor simple (*an unfamiliar place*) and which take time, sometimes more than the first semester of study (*a transitional place*). The testimonies, however, also show that students value the feedback they receive even though it is continuous, requiring improvement and re-evaluation (*a learning place*). The feedback after each post and from peers, for example, helps students gauge their mastery of the literacies they are engaging.

Teachers, alternatively, receive feedback about their pedagogical decisions which are also constant and can be intense and blunt. Feedback includes perceptions about an overly high workload. This could be a consequence of students' realisations that their comfort in completing assessment depends on their engagement with formative assessment interwoven in activities and forums. The transparencies of students' choices, on one hand to disregard or, on the other hand, to feel overwhelmed by the 'work' of the course all the while censuring its lack of campus presence, are sobering. Are these reactions responses to global shifts students feel they cannot control or retorts about the many demands posed by a rapidly changing HE sector? Are they symbolic of a lack of responsibility on students' parts or comments about the contemporary complexity of students' lives? More contemplation and research (*teachers' learning places*) are needed.

Much of the data, however, does illustrate students' growth and growing assurance. Thus, while the findings reflect tensions in the new *space* for some students, as well as initial anxieties and displacement for others, they also reveal that, for other students, online design can constitute a *place* where students can begin to develop their lifelong journeys of contemplation, conversation, reflection and of the creation and dissemination of knowledge. This conclusion however also confirms the need for research, conducted at the end of students' studies, to ensure its efficacy.

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