UWA ASA FORUM 26 SEPTEMBER 2012
eLearning
The role, possibilities and pitfalls of teaching with online tools
Fox Lecture Theatre 1pm

Topic

eLearning - The role, possibilities and pitfalls of teaching with online tools. What are the possibilities for and realities of teaching with technology now and into the future?

Presenters

Dr Shannon Johnston and Professor Stuart Bunt

Chaired by Professor Stuart Bunt, the forum commenced at 1pm with brief presentations of potentials and complexities in technology-inclusive tertiary education by Professor Stuart Bunt and Dr Shannon Johnston, Assistant Professor, eLearning (CATL). The floor was then opened to a facilitated discussion.

UWA ASA provides lunchtime forums for academic staff to bring their questions and ideas and to contribute their experiences."

Present

Prof Stuart Bunt	Chair and Speaker, VP UWA ASA
Dr Shannon Johnston	Speaker, CATL ext. 4766
Prof Ray da Silva Rosa	President, UWA ASA
Victoria Burbank	2852 victoria.burbank@uwa.edu.au
Catherine Lees	Business School ext. 2877
Prof Paul Fournier	Exercise Physiology & Biochemistry ext. 1356
Jake Dennis	Pathology & Laboratory Medicine
Asst/Prof Kimberley Roehrig	Pathology & Laboratory Medicine
Geoff Meyer	Anatomy
Jenny Gregson	Humanities/Arts
Julie Hill	APHB
Lara O'Sullivan	Humanities (Classics)

Forum

Professor Stuart Bunt welcomed those attending and introduced the forum topic.

Professor Bunt referred to the handout he had prepared titled "TPaCK and MOOCs – Are coming…Should we be afraid?" and the projected online version of the material. Professor Bunt said his remarks would look, with necessary brevity, at the impact of technology on teaching and our university; it's influence on the

interaction of teaching pedagogy and course knowledge – context, presentation and content. He noted that the continuing introduction of these technologies is being driven by UWA (as part of a global tertiary trend) and hence there is a key role for UWA ASA to monitor the impact on the role of academics.

Professor Bunt then referred to the Vice Chancellor's white paper "UWA Futures" (August 2012) and the following two quotes:

"A key reason for the entry of commercial operators into higher education is their belief that technology can fundamentally change how teaching is conducted in a way which will both improve the learning experience for students and generate substantial profit." Pg 5 and

"Massively open online courseware [MOOCs] is widely seen as disruptive technology that has the potential to completely transform the structure and nature of higher education over the next 15 years. It also seems inevitable that universities' quasi-monopoly control of degree-awarding powers will be eroded as new entities, both commercial and not-for-profit, enter the hitherto protected territory of higher education." Pg 6

Professor Bunt observed that if the Vice Chancellor sees this trend as important, then we as academics and UWA ASA as a voice for academics, must be aware of what is happening and be prepared to respond.

Referring directly to the slide titled TPaCK, Professor Bunt, queried what is TPaCK and is it disruptive? TPaCK is the interaction between technology, course content and teaching pedagogy. By comparison to TPaCK is the old model of teaching (slide 3) with which most of us are familiar, focussing mainly on interaction between content (what is the curriculum; what is important in my subject; what special knowledge do I have; what ways of thinking do I use? And pedagogy (how shall I communicate this; will I use tutorials, lectures; how will I examine this; what are the university's regulations?). TPaCK (slide 4), standing for technology, pedagogy, content and knowledge, is a new pressure, being the addition of technology to the traditional model, one seen variously as a threat or an opportunity.

So what are the differences, between the old model of teaching and TPaCK (slide 4 and 5)? Technological knowledge is actually in both content and pedagogy, for instance we are used to talking about subject specific technology such as lab equipment but now technology is invading pedagogy with the use of 3 D animations, to interactive clickers, to the notion of a classroom in second life and of course, the internet. The new pressures to use the new forms of technology are in both our daily lives as well as our teaching. As slide 6 states "TPaCK goes beyond content, pedagogy and technology and an understanding emerges from interactions between these. It is the basis of effective teaching with technology; representation of concepts using technologies, pedagogical techniques using technologies, and understanding the social and contextual factors." Further (slide 6):

- TPK – involves understanding how teaching and learning changes when technologies are used in specific ways. This requires creativity, open-minded seeking of technology use, "not for its own sake but for the sake of advancing student learning and understanding" (Koehler & Mishra, 2009, p. 1);
- TCK – Understanding "the manner in which technology and content influence and constrain one another" (Koehler & Mishra, 2009, p. 1). Teachers must have an understanding of which technologies are best suited for addressing subject-matter and navigate across different representations;
- PCK – This involves thinking beyond content and pedagogy in isolation from one another. It's the blending of content and pedagogy where "subject matter is transformed for teaching" (Mishra & Koehler, 2006, p. 1021);

Professor Bunt noted that in the time available he can only touch on the various options and that full exploration of the new ways of teaching possible because of the new technologies and their availability, would require much greater time. But as slide 6 indicates there is a lot to learn. This process is a huge and steep learning curve and it would seem (from his white paper) that it is this process that the Vice Chancellor would like us to be engaging in; it is this direction in which UWA is apparently headed.

There are however some other factors when considering this process at UWA. Professor Bunt observed that some academics are choosing to use the technologies; others are not. In this respect, it is relevant that UWA's teaching population is aging; the average age is 56 years. As well as a great deal of new information to absorb in order to adjust and use the technologies, another question is: does this process actually give academics more work load in their teaching (slide 7), both in developing new pedagogies as well as in how the academic and his/her students interact through the new pedagogies?

Professor Bunt then referred to MOOCs. As indicated in slide 9, the University of Queensland "has become the latest institution to embrace open online learning, committing to offer up to 12 courses in a Massive Open Online Course (MOOC) format over the next two years." In addition, Melbourne University has signed up to Coursea, with other universities expected to follow.

As the Vice Chancellor states in his white paper "UWA Futures":

"We will need to develop and adapt our educational offering in order to meet the changing expectations of students and employers, in order to take advantage of technological advances, and to position ourselves to compete effectively with alternative providers. We have already initiated a fundamental change and modernisation to the structure of our undergraduate programs (New Courses 2012), and we now need to undertake a similarly fundamental revision of our pedagogy."

To this end, the Vice Chancellor states as proposal 1 in his paper, that UWA will "conduct a full review of pedagogic purpose and practice in 2013". It thus seems that UWA accepts MOOCs are coming and that the issue of whether they are a

threat or opportunity, is still being considered (and debated by others on campus – see slide 10). (Note UWA has since announced (Oct 10, 2012) that it is joining Class2Go a MOOC platform developed by Stanford).

What are MOOCs? As defined by wikipedia (slide 11), MOOCs are:

- A massive open online course (MOOC) is a type of online course aimed at large-scale participation and open access via the web.
- MOOCs are a recent development in the area of distance education, and a progression of the kind of open education ideals suggested by open educational resources.
- Though the design of and participation in a MOOC may be similar to college or university courses, MOOCs typically do not offer credits awarded to paying students at schools. However, assessment of learning may be done for certification.

It should be acknowledged that MOOCs have been around for a number of years - proposed in 1961 by Buckminister Fuller, the Open University of UK was founded in 1969 and was introduced into Australia in 2003. The change in their presence came about in 2011 when a particular course (AI) received a massive (over 160,000) enrolment. This development brought MOOCs to the attention of a number of Vice Chancellors and several universities (MIT, Harvard and Berkeley) decided to become involved. As a result Courssera was launched; "Higher education that overcomes the boundaries of geography, time and money!" (Gerald Dicen – see also https://www.coursea.org/course/geneticsevolution).

At present Coursera offers 195 courses, approximately two thirds of which are IT. This has been made possible by the internet, which is the single factor that since 1961 allows the massive enrolment of students. Coursera has no fees and the university may administer the process. Slides 13 and 14 set out the Pros and Cons as follows:

Pros
- Huge publicity for participant universities (while it's "hot"?)
- Supports connectivist pedagogy:
  - Learning occurs in an informal setting/manner rather than in a classroom setting where a strict curriculum may be present.
  - All work, thoughts and instruction can be shared, critiqued and viewed by all participants.
  - All that is needed to participate is an internet connection.
  - MOOCs are free for all who are interested.
  - Participants do not have to be enrolled in the institution which hosts the MOOC.
  - A MOOC's course flexibility allows for the student to "attend" when he/she has the time availability.
  - MOOC's allow for the connection across all professional disciplines as well as across corporation/institution boundaries as well.
  - Networking.

- Crowd-source interaction.
- Peer review.
- Group collaboration.

Cons
- Massive staff/student ratios
- A feeling of confusion and disorientation for students who are used to strict, syllabus directed, lecture courses
- The students' need for self-regulation of learning
- The possibility for the course to take on its own course direction due to the organic and free flowing nature of MOOCs
- The potential for minor interaction with the course instructor (unless formally enrolled through the institution)
- The lack of in person, real world socialising, presenting and practical experience
- The increased likelihood of academic dishonesty, particularly with online examinations, due to a lack of regulation and supervision
- Technical difficulties associated with the complete reliance on computers and internet connectivity
- Difficulty in assessing complex learning of potentially tens of thousands of students whose intent may be to document learning to current or future employers or other higher education providers.

As Professor Bunt was outlining the pros and cons associated with MOOCs, the following comments were made by those present:

(1) in relation to the fact that MOOCs have no fees, the view was expressed that such courses are free until such time as there is sufficient acceptance/need for MOOCs that the business model will make fees acceptable to students;
(2) further to the point above, a view was expressed that it seems extraordinary a university such as Standford would invest millions in MOOCs without projecting an eventual income stream;
(3) at present it is only research universities which are offering MOOCs in this model (ie no fees);
(4) issue of quality of courses – at present it is premier universities but will there be a second tier of universities?
(5) For a university such as Harvard its name is the guarantee of quality of offered course but there is no guarantee of certification at completion of one of it's MOOCs courses.

In his final slide (15) Professor Bunt offered an alternative view that not everyone – even at universities such Stanford - is enamoured of online teaching "let alone MOOCs".

Dr Sharon Johnston opened her comments with the observation that in her presentation she is thinking of herself solely as an academic. Dr Johnston noted that she doesn't have a paper handout but will speak to a Powerpoint presentation.

Dr Johnston's first point in relation to technology was that Powerpoint, with which everyone is now completely familiar, has transformed teaching – and not necessarily favourably as it assumes teaching is linear. So what is the role of technology in teaching? Dr Johnston uses technology to:

(1) address a contextual issue
(2) to enhance or meet gaps in resources or facilities, for example as in language teaching (teaching Indonesian at QUT)
(3) to have students engage in learning for instance by putting an assignment online and then allowing all students to critique each others work
(4) to meet learning needs/gaps for example developed interactive maps and a learning quiz in second life
(5) to provide authentic experiences
(6) to attract students/teach students that we currently have, as for example putting a Masters course online
(7) focus on best learning options, for instance put the listen/reflect/think material online and in classrooms give students the face to face work such as problem solving.

Dr Johnston offered the view that the possibilities of technology in teaching are (quoting Toy Story) "to infinity and beyond". But at the same time the use of technology should meet a real purpose. For instance, some strengths of online teaching as follows:

- best for viewing, hearing, thinking, reflecting; compared to Offline which is best for doing, problem solving, tricky stuff; applying knowledge
- allows interaction with professional world and each other beyond the classroom space and time, as for example with twitter
- allows group and team work
- stores information for anytime, anywhere access
- provides real world, authentic/ like activity
- turns the learning regime upside down.

Some possible pitfalls of online teaching should be also considered:

- impact on staff –
  - what do we know, don't know, how to use correct medium
  - establishing correct learning design, alignment, relevance

- Impact on students – will they engage, participate

- Technology –
  - what is available, is it the right technology
  - reliability and robustness of infrastructure

- response of the University –
  - what support will it provide
  - what, if any choice, will be offered to staff to use technologies

- or will the university insist everyone must do 'x' even though x doesn't necessarily apply to a particular teacher's unit

- impact on me (i.e. Dr Johnston) –
  - what is the time and work load in learning a new pedagogy
  - and ensuring correct integration of the new pedagogy
  - change: I (like others) don't always like change
  - and sometime students want things – insist on things – that I don't want to do.

In her 'end thought' Dr Johnston noted that she is an optimist and looks forward to the use, adaptation and development of technology in teaching.

Discussion

In the resulting discussion the following matters were covered:

(1) observation that the University doesn't give formal recognition to these IT teaching initiatives which also raises an intellectual property issue of who earns from such initiatives;

(2) comment made that technology "seems to double teaching time" in order to do the sorts of things that Dr Johnston does; that is the increased time to teach online and still maintain contact hours with students as well as engage in one's own academic research and publications;

(3) as to the MOOCs business model, noted that Harvard has invested $64m and therefore assume that they intend to recoup by – eventually adding - fees?

(4) from point 3 there followed a discussion regarding the different aspects of what Harvard is and is not offering in MOOCs and likely the impact, if any, of these on UWA; as for example, Harvard isn't offering mentoring online compared face to face teaching offered by UWA;

(5) It was queried whether MOOCs is actually a third teaching option, that is, there is the [traditional] face to face, online and now MOOC?

(6) A view was expressed that UWA hasn't really accommodated all these changes, as for example, it has not provided increased staff levels, it hasn't provided increased lecture theatres;

(7) Another view expressed was that it seems as if UWA and the Vice Chancellor presently have two incompatible objectives, namely research (to be in top 50+ universities) and teaching (how to combine teaching online and face to face), and the resultant pressures are pulling staff in different directions.

(8) A query was raised as to whether we [at UWA] can use MOOCs to our advantage? For instance [to save time] by telling students to look at lectures from

Harvard [and other universities] online and then providing face to face, interactive teaching ourselves?

An alternative view was offered to the basis of the above query, by observing that the lecturing is actually the easy part; it is the administrative load for a unit that is time consuming and if we [at UWA] want to get students on campus [as a 'selling point' for UWA] then we need to provide face to face teaching.

This discussion continued, as to the value, if any, in directing students to other universities' MOOCs and then concentrating UWA teaching energies into small groups as opposed to looking at the matter purely from a best teaching/learning point of view. Accordingly, a rebuttal was offered – specifically from an academic's perspective – rather than from the view of anyone who might be earning income from MOOCs intellectual property, that if UWA provided more staff (could be administrative or teaching) then academics would have more time to provide a teaching pedagogy that encompassed both online and face to face.

It was queried, could it be assumed that students are voting as to their view of the current teaching pedagogy, by not turning up, on campus, to lectures?

(9) Finally there was a brief discussion as to certification, if any and how it might be offered by MOOCs such as Coursera. In response and by way of one solution, it was noted that while the Open University offers all its courses online, to take exams a student is required to physically attend at a specific location.

In concluding the discussion, Professor Ray Da Silva Rosa, President of UWA ASA thanked Dr Johnston and Professor Bunt, and noted that this forum has ended but the discussion continues.

The forum ended at 1.55pm.