Assessment Practice and Technology Enhanced Learning

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I am delighted to join you for the opening of your conference and I must say your topic highlights two key elements critical to higher education quality and student satisfaction. Both Assessment and Technology Enhanced Learning are subject to relatively high levels of student critique and commentary in most student surveys. Individually and interconnected they are drivers of quality for the learning and teaching experience in the 21st Century.

Education reflects the dynamism of the societies in which it is experienced. In the 21st Century both teachers and learners are grappling with the impact of significant but frequently underestimated changes. These changes include the movement toward universal higher education, disruptions to the teacher-learner interface and a global labour market requiring an increasingly complex skill and capability set and offering less institutional protection through stable employment contracts. The impacts of these changes are felt keenly by our students, academic and professional staff and our partners.

The first impact is a movement to universal higher education closely aligned to individual student interests and vocational accreditation.

Advanced technologies have allowed more open access to information and the capacity to share information which has radically challenged previous social and policy restrictions on access to higher education. The quality, relevance and currency of teaching and research has been challenged, the barriers to university entry have been shaken, professional groups have required closer accreditation and students have been encouraged to have a stronger voice and ownership of the process; this latter gain at the cost of a significant financial debt upon their graduation.

Student access to mobile devices and social media has enabled a connected generation to accept a global perspective as the norm. Their collective power to isolate unsatisfactory service is emerging.

Few students remember a time without the internet. Most of them have had several mobile phones, and Facebook and other social sites are real meeting places for them. They shop and bank on line, play games and expect to learn in that space, too. They have come out of schools which have individualised their learning, offered attention to a variety of learning styles, resourced group work and problem solving and provided rich relationships with teachers including responsive and prompt feedback and remediation of work.

There remains a gap between these expectations and the traditional lecture and tutorial with large groups and limited access to staff with feedback frequently too little or too late, and dominance of exams that remains common in contemporary Australian universities.

This learner, and his/her older colleagues, have chosen a particular university and program, and they are paying fees through HECS-HELP.[1] They understand that student satisfaction is a government requirement for funding universities. They are critical consumers and their constant refrain is:

- Staff don't use technology enough and they don't use it well enough.
- We want recorded lectures with rich graphics.
- The Learning Management Systems and university business systems need to be more user friendly, less repetitive, faster and more customised.

That being said, they also want many of the traditional campus offerings and want greater personal and academic support and more individualised tuition and programming.

Learners today inhabit a data-rich world and have built the facility to access, scan, replicate, integrate, manipulate and exchange that data. This capacity is quite extraordinary but it is not learning. It can lead to superficial, overly confident, whimsical, compliant opinions that pass for thinking.

The learning process demands difficult thinking. It requires of the learner a level of cognitive dissonance; it seeks out interrelated or contradictory ideas; it extends thoughts through the addition of new information and reflection on already available knowledge. It requires of the academic a capacity to predict and map out the learning that is necessary to achieve an outcome: that is, to

[1] HECS-HELP is a loan program to help eligible Commonwealth supported students to pay their student contribution amounts.

design the curriculum. The academic mediates both the design and the acquisition of the learning; that is, teaching.

The challenge today is to assist the many students who have an increasingly utilitarian view of learning. They enter a degree program with a vocational outcome in mind. While about 80% of students are employed throughout their degrees they are aware of how difficult it can be to achieve graduate employment. This is particularly true of students who are first in family at university and those from disadvantaged groups.

To navigate learning in this new environment, students need skill sets that enable them to manage data overload and depth thinking and responses. Terry Heick (May 10, 2012) poses the following skill list:

- Persisting
- Managing impulsivity
- Responding with awe
- Questioning
- Innovating
- Thinking interdependently

Teaching and assessing these skills is a challenge for us.

The second impact involves the disruption of the teacher-learner interface demanding new understanding of learning and teaching and responsive pedagogies.

Technologies do not drive learning; poorly deployed they can distract from learning but they also challenge the delivery of learning and enable and enrich it. They give new access to many learners. The 21st Century pedagogy is reliant on a solid platform of technology.

Good curriculum is still dependent on clear focus and articulated learning outcomes, scaffolded learning and assessment experiences and high quality teacher-student-class interactions with formative and summative student achievement feedback and student feedback on the learning experience. At the institutional level, learning analytics and continuous curriculum evaluation and renewal also need to be there.

The opportunity that we have today is to partner in the design and development of courses and curriculum to ensure that we harness enabling technologies, access rich and meaningful data, develop stimulating and challenging learning and assessment experiences related to real life and provide students with appropriate generic and graduate skills to navigate a data-rich, complex and contradictory, constantly evolving global environment where they will manage careers and lives with unpredictable opportunities and threats. For many of today's students they will need to be job creators not job takers.

This requires a respect for multidisciplinary learning and teaching teams including:

- academics with strong discipline knowledge, understanding of learning and students' aspirations and expectations, and technological competence and comfort
- specialist learning and curriculum designers and developers, who understand the application of pedagogies to a discipline and/or professional preparation, have a psychological and sociological understanding of learning and teaching and technological competence and comfort
- technology specialists who understand the applications of technology to pedagogy, have excellent teamwork and project management skills
- educational resource providers who can tailor resources to meet institutional needs at appropriate cost levels
- technology partners (in-house and external) who provide infrastructure, maintenance and technical advice.

We are in a time of possibilities; the 'Cloud' symbolises beautifully the height of our aspirations. Today we have tools that can address access and equity in education across the globe. For better or worse we can be linked 24/7, and our knowledge and experiences can be shared in rich and diverse ways. Teaching is being cracked open and we know more than ever before about learning. There are huge social and commercial opportunities in this space.

Work and study are becoming more varied and responsive to the individual. We are building systems that provide outreach to individuals through learning analytics and communication technologies.

Curricula and assessments face the challenge and opportunities that enhancing technologies provide. We must not be seduced by easy solutions that look slick. We need to ensure that the principles of quality teaching and learning are reinterpreted in new technologies and that the focus remains on the learner and the acquisition of skills and knowledge for the 21st century.

References

Barber, M., Donnelly, K. and Rizvi, S. (March 2013). An Avalanche is Coming: Higher Education and the Revolution Ahead. *Institute for Public Policy Research.* Retrieved from http://www.ippr.org/images/media/files/publication/2013/04/avalanche-is-coming_Mar2013_10432.pdf (accessed July 2, 2013).

Bradley, D., Noonan, P., Nugent, H. and Scales, B. (December 2008). Review of Australian Higher Education. *Department of Education, Employment and Workplace Relations, Australian Commonwealth Government.*

Coates, H., Edwards, D., Goedegebuure, L., Thakur, M., van der Brugge, E. and van Vught, F. (June 2013). Profiling Diversity of Australian Universities. *LH Martin Institute and ACER Research Briefing*.

Gallagher, S. and Garrett, G. (July, 2013). Disruptive Education: Technology-Enabled Universities. *The United States Study Centre at the University of Sydney.* Retrieved from http://ussc.edu.au/ussc/assets/media/docs/publications/130801_DisruptiveEducation_GallagherGarrett.pdf (accessed Aug 1, 2013).

Glance, D. (2013, July 1). Dear Harvard Arts & Science professors, it is not MOOCS you have to fear. Retrieved from http://theconversation.com/dear-harvard-arts-and-science-professors-it-is-not-moocs-you-have-to-fear-15710 (accessed July 2, 2013).

Heick, T. (May 10, 2012). How 21st Century Thinking Is Just Different. Retrieved from http://www.teachthought.com/learning/how-21st-century-thinking-is-different/ (accessed June 19, 2013).

Heick, T. (August 31, 2012). 9 Characteristics of 21st Century Learning. Retrieved from http://www.teachthought.com/learning/9-characteristics-of-21st-century-learning/ (accessed June 19, 2013).

Heick, T. (August 25, 2012). 6 Characteristics of Tomorrow's Classroom Technology. Retrieved from http://www.teachthought.com/technology/6-characteristics-of-tomorrows-classroom-technology/ (accessed June 19, 2013).

Heick, T. (December 22, 2012). 1 Certainty & 25 Possibilities: What to Expect From Education in 2013. Retrieved from http://www.teachthought.com/trends/what-to-expect-from-education-in-2013/ (accessed June 19, 2013).

Heller, N. (May 20, 2013). Is College Moving Online? *The New Yorker*. Retrieved from http://www.newyorker.com/reporting/2013/05/20/130520fa_fact_heller (accessed May 29, 2013).

Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A. and Ludgate, H. (2013). *NMC Horizon Report: 2013 K-12 Edition*. Austin, Texas: The New Media Consortium.

Kolowich, S. (2013, May 2). Why professors at San Jose State won't use a Harvard professor's MOOC. Retrieved from http://chronicle.com/article/Professors-at-San-Jose-State/138941/ (accessed July 2, 2013).

Teach Thought Staff (October 18, 2012). 12 Principles of Mobile Learning. Retrieved from http://www.teachthought.com/technology/12-principles-of-mobile-learning/ (accessed June 19, 2013).