

Future directions: Recognising the contributions of professional staff in supporting technology for positive student outcomes

Thank you for coming along to this session. This is the last day of what has been a stimulating and full conference, and perhaps some of you are suffering a little from information overload. I realise that I stand between you and lunch, so I'll keep my presentation short – but I do welcome comments and questions along the way, so please feel free to put your hand up at any time during the presentation. There will also be an opportunity during the presentation to share your stories.

Before we start, could I have a show of hands from TEFMA members? And now ATEM members? Thank you. I'll try to cover items of interest for both these groups.

You will see that I am using a presentation tool that is not the usual PowerPoint. This is called Prezi, and you saw it at the keynote by Morris Miselowski. I understand that it has also been used at other times during this conference. However, this is the first time I've used it and I'm still learning how to drive it, so please bear with me if we go a bit off track.

Big picture frame

In the abstract for this presentation, I said I'd cover:

“ the use of technologies that support student outcomes in higher education, comment on the changing expectations of students, and investigate the role of professional staff in supporting the technology that enhances student outcomes in the 21st century”.

I will cover all these aspects, and I will also illustrate these points with some example stories that were told to me in interviews that I have been doing as part of my doctoral research.

Why student outcomes?

So why am I interested in looking at student outcomes?

Core business

Over the last 20 years, there has been a growing concern about accountability in higher education in Australia. Learning and teaching forms part of the core business for universities (along with research and, perhaps, external community engagement), and so it's strategic to view the work of professional staff in this context.

Increasing student participation

There has been increasing student participation, often referred to as massification, in higher education in the last 20 years. In 1989 there were about 441,000 students. In the 10 years to 1999, this number grew to about 686,000, and ten years later there were well over 1,000,000 students. This increase in numbers had direct consequences on funding, class sizes, infrastructure required, and so on.

Changing student profiles

Not only have there been these large increases in student numbers, there have also been significant changes in student demographics over the last 20 years. For example, there have been large increases in the number of international students and significant increases in the number of students with disabilities and students from other equity groups. These changes have direct impact on the facilities and services that we, as professional staff, provide.

Accountability and public funding

Increasingly, student outcomes are linked to external accountabilities, with Key Performance Indicators developed and reported on. This in turn is directly linked to government funding. However, the scrutiny of student outcomes is not limited to government accountability. Over the last 20 years, there has been a proportional decline in the amount of public funding to higher education, and an increase in the cost to individuals. As this cost has been transferred to individuals (the students, and their parents), these stakeholders and consumers want to identify and measure the return on their investments. In this market-driven environment, student outcomes are of increasing importance.

Why technology?

Why am I focussing on technology?

Information moving to knowledge era

[I had the pleasure of chairing Heather Davis's session earlier this morning. Those of you who were there would have heard that we're now in the Knowledge Era, which is a time of increasing complexity.] In their 2006 report, Staron, Jasinski and Weatherley propose that we're moving from the Information Era of the 20th century into the Knowledge Era of the 21st century. They suggest that Knowledge Era's characteristic way of organizing, and how our thinking and practice is being shaped, is through ecologies. Like ecologies, the Knowledge Era is complex and is characterized by impermanence, turbulence, ambiguity and uncertainty. It is a time of constant change.

Technology is enabling the Knowledge Era by enabling information to be accessed from many sources and to be shared globally. And it's becoming embedded in our lives in so many fundamental ways.

Cloud computing

The new and emerging technologies can be conceptualised as cloud computing. Cloud computing is based on shared and distributed infrastructure including networks, storage, software and processes. For example, this presentation uses Prezi, which is an online shared application. In making this presentation, I was able to access and work on it from any computer that had internet access. The work-in-progress was stored online, using Prezi's network and storage. The finished presentation was downloaded, in both Mac and PC format, so that it could be presented off-line.

m-learning

What is meant by mobile learning, or m-learning? The Mobile Learning Network, which is a UK-based organisation that promotes the implementation of mobile learning, defines mobile learning as "*The exploitation of ubiquitous handheld hardware, wireless networking and mobile telephony to facilitate, support enhance and extend the reach of teaching and learning*". Mobile learning can take place at any time and in any location. This can include traditional learning environments, such as classrooms, as well as in workplaces, at home, community locations and while in transit. Mobile technologies can include a wide range of devices – perhaps most notably mobile phones, smartphones - such as this iPhone [hold up iPhone], MP3 and MP4 players, iPads [hold up iPad] or netbooks, and specialist portable devices used in labs or for fieldwork. Mobile learning involves connectivity for downloading, uploading and on-line working via wireless and mobile phone networks, and for linking to institutional systems.

Pedagogy

But we need to ask ourselves: what is the pedagogy of m-learning? Because we mustn't get hung up on the technology – after all...

It's not about the tools, it's using the tools to facilitate learning

[This point was made by Morris Miselowski in his keynote on Monday, when he said it's not about the technology, tools or hype, it's always about the people. I'm sure many of you will remember that the value of his staff was a strong theme in Tom O'Toole's keynote, and the value of people has been a re-occurring theme throughout many of the sessions I've heard at this conference.]

M-learning can facilitate learning through

- Connectivity – access to information is available on a global scale
- Flexibility – learning can take place any time, any place
- Interactivity – assessment of learning can be immediate and autonomous
- Collaboration – use of discussion tools can support collaborative learning beyond the classroom.
- Extended opportunities – e-content can reinforce and extend classroom-based learning
- Motivation – multimedia resources can make learning fun

(JISC TechDis Service 2010)

So m-learning can facilitate a constructivist approach to learning, engaging and extending the learners.

Student expectations

So now I'd like to consider the students who will be entering higher education in the next 3 to 10 years, and what their expectations might be.

Gen Y, Z and Alpha

Much has been written about Baby Boomers, Generation X and, more recently, Generation Y. We're now moving into the times of Generation Z and Generation Alpha (or Gen A, as we've also heard them called at this conference).

Baby Boomers – born 1946 -1953

Gen Jones – born 1954 - 1964

Gen X – born 1965 - 1979

Gen Y – born 1980 – 1994

Gen Z – born 1995 – 2009

Gen Alpha – born from 2010

The generations are typically defined as shown here. So in the next 3 years or so, Gen Z will be starting uni.

In 2001, Mark Prensky coined the term “digital natives” to describe school and university students of the time – students born between about 1980 and 1994. This group corresponds to Gen Y. More recent studies have cast doubt on whether this generation really are digital natives.

True digital natives

I'd argue that *true* “digital natives” are Gen Z – those born post-internet, who don't know life without a mobile, and those who probably can't remember when you had to plug in your desktop computer to a wall, rather than wander around with your laptop or mobile phone to connect to the internet.

67%

The Sensis® e-Business Report released in September (last month), which refers to research into technology use in Australia, notes that the biggest users of mobile phones for internet access are 14 to 17 year olds – these are the oldest members of Gen Z.

m-learning

Which brings us back to the idea of using hand-held devices for m-learning, and their increasing importance.

What will their expectations be?

These Gen Z students will be entering higher education within the next 3 years or so. [Dominic Thurbon said that learning needs to be interesting, engaging, relevant and entertaining.] What will their expectations be? Will we be ready for them?

In 2007, Ally commented:

“Because of the increasing use of mobile technologies in society and by the younger generation, learners will demand course materials be delivered on mobile technologies to be accessed from anywhere and at anytime. At the same time, today’s and tomorrow’s learners will be nomadic and continuously on the move. As learners move from one location to the next, they must be able to use the infrastructure in the different locations to access learning materials. Hence, learning materials must be designed for easy access by the nomadic learners using mobile technology regardless of where they are located and which network infrastructure they are using to access information.”

Given the emerging cloud computing technologies, I believe the impetus and the means for mobile learning will increase with the entry of Gen Z into our institutions.

However, not all Gen Z, particularly the early Gen Zers, will enter university with the technology skills related to m-learning. So who will support these students and this technology?

Role of professional staff

Which brings us to the role of professional staff. Firstly, you might be wondering why I’m using the term “professional staff” rather than “general staff” (which has been, and might still be, more commonly used) or even that non-person term “non-academic staff”.

It was finally resolved...

When I first started my doctoral studies in 2008, I was using the term “general staff”. However, based on the resolution of the ATEM council, and similar changes overseas, I have changed to using the term “professional staff” which I think reflects more appropriately the services we provide to higher education – those of ATEM and TEFMA members, as well as others who might not be members of our associations.

Growing professionalization...

Growing professionalization is characterised by 4 key components:

1. an increase in formal status of professional positions
2. an increase in formal qualifications required to hold such positions
3. the emergence of a common cognitive basis
4. the growth and formalisation of networks between staff in these positions

These last two points – the emergence of a common cognitive basis and the growth and formalisation of networks – is facilitated by conferences such as this one.

Changing roles and relationships...

Celia Whitchurch has proposed in a number of papers that the roles and identities of professional staff in UK universities is changing, and has defined the “blended professional”. On Monday, we heard from Sylvia Gillard and Carolyn Birch about para-academics at Griffith. Maree Conway recently challenged us in her online article “The Future of University Management” to speculate what universities as an organisational form might be like in the future - and hence what the future staff will look like.

With regards to technology, the vast range of technology used in higher education is not only supported by professional staff for operational matters, but is increasingly supported and developed by professional staff for learning and teaching activities.

A better understanding...

Professional staff comprise more than 50% of the staff in Australian universities, and so the contribution that we make is essential to the long-term sustainability of our institutions.

[As Dominic Thurbon mentioned on Monday in his keynote, we learn by stories, so now I'd like to share a parts of the stories of three professional staff]

The librarian, the IT guy/gal, disability services

I'd like to now share with you some key points that have come out of the interviews that I've done with various professional staff so far.

The IT guy/gal

Firstly, IT . . .

We help people fix wireless problems, which can take a couple of hours each time, sometimes . . .

[wait for the audio to play]

OR

I'll give you a minute to read the quote... [watch for people finishing]

I'm sure that many of you can relate to this situation – new systems are rolled out, and professional staff have to implement them without any additional resources or training. Nevertheless we do our best to make things work.

Students will come up and ask to borrow a laptop . . .

This illustrates that many mobile devices are still quite expensive, and not affordable by all. Moving to smaller, hand-held devices for m-learning will help to overcome this – how many students do you see without a mobile phone? In fact, the recent research by Singh found that 100% of 18 to 19 year olds, which are our current first year students, have mobile phones.

Disability services

As I mentioned previously, there has been an increase in the number of students with disabilities in higher education. Most of the support given to these students is done by professional staff.

There's been a lot of change since I started . . .

This service is managed by professional staff to meet the needs of students in achieving their outcomes.

How that all got set up, that alternative format service . . .

Here's an example of professional staff working across "silos" to develop and implement a technology-based service that benefits students and their outcomes.

The librarian

Which brings us to the librarian. I'm sure that any of you who are librarians or have been librarians [look at Heather], or who work with librarians, would agree that the context of the university library has changed enormously over the last 20 years, mainly due to changes in technology.

For example, in 2006 Jeff Trzeciak, the University Librarian at McMaster University in Canada, said: "Libraries today are at the heart of unprecedented change. This change is fueled primarily by new technologies, new resources and new services that were unimaginable as recently as three years ago. Never before have the challenges we face been so exciting or the opportunities so great."

And the job continually changes . . .

The sentiments of Jeff are reflected in this comment from one UTS librarian.

We also have a generic information literacy program . . .

In this quote we can see a blurring of roles between professional staff and academic staff, in which professional staff are teaching key generic skills to the students. We can also see that these professional staff are not just using technology and teaching current technology skills, but they are looking to future directions to support students in their learning outcomes.

This semester we're piloting a small reading club program trying to create a supportive . . .

In this example, we hear the librarian is using both face-to-face and online methods to ensure that flexibility is provided to the students to help them achieve their learning outcomes.

And librarians are continuing to develop and use technology, contributing to the development of the "Future Library".

[I'm sure that many of you have similar stories, so now I'd like to pause here to invite you to share your stories]

Thank you for sharing your stories. I'm sure that everyone here has found these stories relevant and interesting.

Big picture frame

So in this session we've:

- looked at the importance of considering student outcomes
- considered the implications of changes to technology and possible future directions
- speculated on the changing expectations of students over the next 3-10 years
- reflected on our role as professional staff in higher education
- and examined some examples of professional staff using or developing technology to support positive student outcomes

Graduating students picture

For me, the important thing to not lose sight of the fact that is that our work can make positive contributions to student outcomes, which in turn can make positive contributions to our wider society, and its future directions. As we've heard on several occasions during this conference - it's always about the people.

Wider society picture

Thank you.

Contact details.