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First Steps Towards Blended Learning @ Bond

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First Steps Towards Blended Learning @ Bond

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First Steps Toward Blended Learning @ Bond

FIRST STEPS TOWARD
BLENDED LEARNING @ BOND

BOND UNIVERSITY
OFFICE OF LEARNING AND TEACHING

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Blended learning:
Make mine
a smoothie.

Dr Shelley Kinash
Director, Learning and Teaching
Associate Professor Higher Education

I love smoothies. They taste like sunshine. They give me energy. They are guilt free. To make a smoothie, I blend mangoes, bananas, strawberries, fruit juice and yogurt. They are all healthy natural ingredients that taste splendid alone. When blended, they produce a new flavour sensation. I can taste bursts of each ingredient and the overall effect is unique and delicious. Sometimes I make smoothies for a friend who is allergic to strawberries. I leave them out. The colour of this smoothie is different, but it is no less pleasing to the palate.

This analogy explains why I believe that the term blended learning works well for the growth in learning and teaching that we are currently undertaking at Bond University.

They taste like sunshine.

The student learning experience is the hallmark of education at Bond University. There is strong evidence that our students enjoy their experience at Bond and are proud to be our alumni. Our students want blended learning. They want to be guided to use technologies in innovative ways. They want flexible education options that suit their needs and fit into their lives.

They give me energy.

Energy = Learning

There is impressive empirical evidence that blended learning approaches enhance student engagement and achievement (learning outcomes). An important aspect of blended learning is supporting students to experience and learn the technologies at university that they will be using in the workforce and/or academic research and as lifelong learners.

They are guilt free.

At university, we want to provide our students with quality teaching. Our students rely on us to facilitate learning that produces the best quality outcomes. Blended learning has been established as a promising practice to make an outstanding contribution to student learning.

They are all healthy natural ingredients that taste splendid alone. When blended, they produce a new flavour sensation.

It is important that each and every element of the blend is designed, developed, maintained and sustained as quality. This means that Bond applies the advantage and opportunity of small class sizes by engaging the students in deep interaction, collaboration and critical thinking. The students' inquiries are supported by having them search websites and critically compare the information during scheduled lectures. This means

that subjects offered at a distance are more than correspondence manuals filed online. Communication tools are used to engage students in discussion, creation and peer review. Each element of the education we blend needs to be exemplary.

Blending exemplar educational experiences together produces a unique learning opportunity. Students experience a diversity of learning approaches that derive a cohesive, memorable and catalysing life opportunity. As educators, we need to attend to the parts of the learning experience and ensure that we have mapped, considered and engineered a total quality education. One of the elements of this is considering how the diverse experiences with pedagogical provision of innovative technologies in each subject link together for a complete degree program.

Sometimes I make smoothies for a friend who is allergic to strawberries. I leave them out.

One of the strengths of blended learning is that it offers options and choices to students and educators. Is an online or face-to-face learning experience better suited to this particular discipline, curriculum, and desired learning outcome? Would it work to design this same subject for online and face-to-face facilitation so that students have the option to register in either? Would the majority of this subject work best online, but is it necessary to bring the students together

for a short learning intensive? Is the content accessible to diverse learners? Are there adaptive technologies that will allow an equitable learning experience? Am I using the capacities of the technologies to allow multiple means of representation, engagement and expression?

This booklet is part of the midway conversation at Bond about blended learning. Midway - because there are many diverse opportunities already occuring in each and every faculty and institute at Bond. What we have assembled here is a sampling. We have asked people who are doing blended learning to tell us about their experiences. You will find ideas, opportunities and catalysts for conversation between educators and across faculties. We hope you enjoy this learning experience and look forward to presenting your blended learning experience in the next volume. ◼

**Think of blended learning as
a culinary art** for a second. It's
important to note the term 'blended'.
In cooking the definition would be
to combine two or more ingredients
until smooth and indistinguishable in
texture, colour and flavour.

The idea therefore is not to force
technology into an environment
where it doesn't belong, but to
combine it where appropriate into
a seamless learning experience. In
order for this 'blending' to occur, you
must know about the ingredients
you have and their individual
characteristics. It's extremely
important to work the mixture
slowly, only introducing new things
only as the existing ones become
second nature. Students are willing
to try something new with you as
long as you make them aware that
you are learning too.

Lauren Hives

eLearning Applications
Administrator

Experiment,

ask the tough questions

and be bold.

Professor Richard Hays
Dean of Health Science and Medicine
Pro Vice-Chancellor, Learning and Teaching

Educational institutions are paving new paths in learning and teaching in response to a digital revolution. Blended learning is one of these paths. It is important to remember, however, that though the destination may be the implementation of effective blended learning approaches, all paths are not the same.

This booklet helps us embark upon a journey to discover - what is the blended learning path for Bond University? Some of our colleagues are already embracing blended learning strategies. You may not know it, but your colleague sitting beside you on the iPad could be facilitating students' exploration of the human heart by acting as a virtual tour guide. Blended learning is a fundamental restructuring of the way educators and students interact with content and with each other. It is freedom to go beyond the limitations of traditional teaching and learning. It opens up opportunities, resources and possibilities for unique and personalised learning experiences for each student.

What blended learning is not: 1) lecture video capture, or 2) digital deposits of lecture slides and notes online for students to access.

Blended learning must meet the same quality standards as traditional face-to-face teaching. Mere provision of content without any opportunity to engage with content is a pedagogically poor approach to teaching. On our blended learning journey at Bond, we must avoid 'technolust'. We must use principles of good teaching and learning to guide our use of technology in the classrooms.

What is blended learning at Bond? We are still defining, building and strategising our response to this question. Together we will design a blended learning approach that suits Bond's unique educators, students, and environment. Just as there is not a 'one size fits all' approach to using technology in learning and teaching, approaches to blended learning must be suited to the institution's learning and teaching objectives, characteristics and challenges.

I encourage you to experiment, ask the tough questions and be bold. This booklet is the beginning to discovering how teaching and learning will evolve at Bond, and what blended learning means for Bond. ■

Embrace it
with
arms wide open.

Ron Kordyban
Educational Developer
Blended Learning Coordinator
Office of Learning and Teaching

We live in a world where a streamed MIT lecture on black holes and astrophysics is separated by only a few clicks of a mouse from an app featuring angry birds being shot at pigs. Where it takes less than 10 seconds in iTunes to move from Lady Gaga or Justin Bieber's latest release costing twenty dollars to a free lecture on Plato and classical philosophy at Oxford. *Welcome to the digital education revolution.*

Advances in technology have transformed the process of learning dramatically and one of the most tangible changes is blended learning. With respect to how we learn and teach, John Dewey's classic quotation on education, made forty years

> "*If we teach today as we taught yesterday, we rob our children of tomorrow.*"
> - John Dewey, *Democracy and Education* (1944)[1]

before the first personal computers became commonplace, is as meaningful today as it was when he said it in 1944.

> *"Why blended learning at Bond? Three reasons in particular: Student experience, Competition and Trends. All three enable us to define and enhance our value proposition to current and prospective students."*
>
> - RAJAN DAVIO, Director, Information Technology Services

WHAT IS BLENDED LEARNING?

Blended learning encompasses a fundamental change in how, when and where we teach. Through the use of new technologies, multimedia resources, virtual learning places, networks and new teaching methods, blended learning has changed the look and feel of modern education.

These changes are about more than just new technologies, they also encompass Internet enabled learning networks and communities, and virtual learning places which can complement Bond's hallmark excellence in the face to face learning experience. They address the change in the learning styles, needs and expectations of a new generation of Bond students. They give the flexibility and convenience of studying from various locations at various times. They give richer and more varied content from a range of sources, and allow students to work with their peers in wondrous new ways.

This change in education is being felt by educators everywhere. Some are riding the wave as innovators and champions; while others are feeling overwhelmed and struggle to keep their heads above water.

Wherever in the spectrum they find themselves, academics face both a challenge and an opportunity- to adjust, evolve, survive, excel.

WHY USE BLENDED LEARNING AT BOND?

In a time where the information super highway is delivering an overwhelming amount of information, the role of teacher as simply a content delivery vehicle is obsolete. The growth of online resources such as *Open Universities*, *Coursera*, *Khan Academy*, *Ted Teach*, or the ever popular MOOCs (massive open online courses) speak to the fact that the "sage on the stage" method of teaching is alive and well, but is already living on the Internet. Why only duplicate that in class when you can do more?

With world class educational institutions such as Cambridge and Harvard offering free courses, the role of the educator in face-to-face learning institutions has undergone a change from source of knowledge to learning facilitator.

Enter the idea of flipping the lecture halls from a place of delivering content to a venue where content is discussed, debated and applied, where lower order thinking

skills and rote learning gives way to higher order thinking skills and application.

Blended learning frees up more of that critical face to face time to explore things beyond the basic acquisition of facts and knowledge. It allows Bond to continue to be a leader in forming relationships, working with small groups and classes to learn, grow and lead.

Enhancing the student experience

Blended learning helps Bond continue to be a front runner in the field of student experience excellence. It responds to students' desire for more engagement, more interaction, and will allow and enable students and academics to communicate and connect in new and more contemporary ways. The net effect will be a better learning experience by giving the best of both the online and face-to-face worlds. Students want faster communication, more exciting engagement and deeper interaction so let's give it to them. Blended learning is a great tool for doing this.

> *Do not confine your children to your own learning, for they were born in a different time.*
>
> - Chinese proverb

Convenience for learners and teachers

Blended learning boasts an anytime, anywhere accessibility for both students and lecturers. It could take the form of downloading a lecture to listen to while a law student is at the gym, or a business professor at home holding consultation hours with students in a virtual office.

The ease both of communication and transfer of information through technology perfectly complements the personal connections typical of Bond's small classes and face-to-face teaching excellence.

Flexibility

Blended learning allows Bond to take advantage of being a small university where flexibility and adaptation enable us to respond, change and evolve much faster and better than large and cumbersome institutions.

Learning technologies can come (and go) very quickly but the underlying skills and principles which relate to blended learning endure. Having the teaching methods, the technical skills and infrastructure for blended learning allows Bond to remain at the cutting edge, and relevant to the practices and skills needed for the real world, where traditional chalk-and-talk only teaching often fails.

Efficiency

Making and editing a podcast or video of a particular lesson or point may take some time initially, but in the end it's a valuable investment. Why answer the same question over and over again during student

consultation hours, when you can preempt the situation? Try putting frequently asked questions, commonly confused topics, or key concepts into podcasts, videos, or other blended learning tools to supplement what is said in the lectures and tutorials. Or allow students to collaborate in online discussion boards and make the whole process more student-centred while at the same time reducing the need for top down teaching.

Diversity

People learn differently-some are visual learners, some work well with words, others excel in group activities. Learners are often in different life situations-full time students, part time students, learning challenged students, mature students, fresh from secondary school students, international students.

Having a blended approach to teaching helps address diversity since it involves multiple media types, different forms of assessment (not everyone is good at essay writing), open and flexible access to lesson material, as well as the ability to review online resources again and again. It can allow teachers to address the difference in learning by utilising (or creating) online resources for students who are struggling, or advanced enrichment resources for those who need more challenge.

HOW BOND OLT HELPS ACADEMICS WITH BLENDED LEARNING

In the Office of Learning and Teaching we are committed to supporting all Bond academics, whether new to blended learning or wizards at the craft. You may decide to set up audio recording, change presentation slides to include a voice narration, experiment with a wiki or discussion board, add an instant polling device to your tutorials, video student presentations, or try a host of other blended learning options. We are there to do it for you or help make it happen.

I'm proud to be part of the Bond family and honoured to have worked with so many passionate, creative and intelligent academics that have embraced blended learning and I encourage more to do so. Hopefully, this sharing of a few of the following examples will both recognise the efforts of some and inspire the actions of others. ∎

[1] Dewey, J. (1944). *Democracy and education*. New York: The Macmillan Company.

With the information superhighway now three decades old, the world of education has become a place of making connections, working collaboratively and expanding learning networks. The modern student- a digital native, global netizen and forward looking multitasker all in one, requires enabling learning places and technology to help students not only match but lead the crowd. Learners also require innovative and

Networked Learning at its Best:

The Balnaves Global Links Room

leading edge instruction empowered with modern curriculum, teaching philosophies and methods relevant for today and years to come. Add to the equation a place which enables and allows a progressive pedagogy driven by state-of-the-art technology.

Introducing the Balnaves Global Link Room

With generous support from Mr Neil Balnaves and the Balnaves Foundation, Bond University is proud to announce the opening of its new and exciting cradle of the leaders of tomorrow- the Balnaves Global Links Room. This is a place where students can experience the best of a blended learning approach to teaching, the ability to cultivate global links and connections and develop their academic and professional networks.

The Balnaves Global Links Room enhances Bond's web-based teaching services for globally connected learners.

Now students and teachers can engage in multimedia video conferencing conveniently located in the Balnaves Multimedia Learning Centre, with top of the line connections to multiple parties from around the world. It will enable not only fast and clear connections, but also facilitates the use of cutting edge educational software and e-learning tools of today, and years to come.

Given the importance of Bond's student experience and our commitment to educational excellence, the Global Links Room is an innovative technology-enabled learning space of which Bond is both grateful and proud.

Possible Uses - Imagine the potential

Imagine expanding a class of twenty into a virtual forum of hundreds by linking up with other classes or tutorials around the world. By adding new dynamic and international perspectives the Global Links room will help forge new social and learning networks, connections in business and education- ties which will enable and define the leaders and experts of the future.

Picture a class enriched by the conducting interviews and discussions with chief justices, surgeons, CEOs of multinational companies, and industry leaders from around the world. Imagine a place which enables the connection of theory and practice, study and work, which is not only vital but pivotal for the success of students in the job markets of today.

Consider the whole spectrum of diverse students now having better access and connections to learning communities at Bond and around the world. Think about the importance of being able to better enjoy mobile learning, digital collaboration and lead the way in innovative and exciting networking and collaboration not possible before. ∎

Innovative *Solutions* for Online Pedagogy

Technology should not drive learning; Learning should drive technology.

At a recent event at Bond University, where we recognised our academics for their learning and teaching contributions, Dr Fay Patel's message resonated strongly through the audience:

"If knowledge is not disseminated widely, not translated to action for change, and if it does not contribute to the well-being of the societies that we embrace, what is the value of that knowledge?"

This booklet highlights the blended learning solutions our colleagues at Bond have utilised, implemented and refined through experience and investigation. There is a wide range of resources available and easily accessible for 'best practice' solutions for specific technologies, but academics first need to ask whether it's the right approach for them, their subjects and their students.

Universities in Australia and overseas are pursuing technology-enhanced learning through blended learning frameworks and approaches to enhance student learning, encourage student engagement and expand the depth and breadth of student achievements.

In the spirit of sharing and building on the community of inquiry and knowledge for blended learning, Dr Fay Patel shares her perspective based on her research on the scholarship of learning and teaching, and in the field of diffusion of innovations of information communication technologies in international higher education contexts.

The advent of new communication technologies in general, and of educational communication technologies (ECTs) in particular over the last two decades has resulted in the rapid diversification of traditional face-to-face (ftf) and distance learning design approaches in higher education around the world. Diverse approaches in learning design are evident in the various formats and permutations of learning environments that are made available to learners in different institutions.

A blend of ftf and online learning design that combines traditional interpersonal (ftf) learning with online, technology assisted and enhanced learning is the norm in the 21st century. Each higher education institution worldwide is attempting to respond to the needs of the constantly shifting learner demographics. Institutions are competing for the same technology savvy learner cohorts by adopting emerging ECTs under the guise of different terminology and labels to market their programs.

A number of terms have since been applied to learning and teaching design that includes the use of technology, e.g., eLearning, blended learning, flexible learning, online learning, and technology-enhanced learning. It is the pedagogical framework of online learning that must take precedence over the technology itself, whatever the choice of terminology and approach to online learning. However, this is not always the case in various online learning initiatives and programs.

The multifaceted applications of ECTs in online learning design bring forth various context driven

DR FAY PATEL

Dr Patel is Senior Lecturer (Assessment and Learning Design) in Deakin Learning Futures at Deakin University. Fay has nearly thirty years of experience in higher education in Australia, Canada, USA, New Zealand and South Africa. Her research and teaching focus includes global engagement; sustainable curriculum and assessment design; scholarship of teaching and learning; and the pedagogy of online learning. Dr Patel's recent book publications include *Information technology, development and social change* (2012, Routledge); *Intercultural communication: Building a global community* (2011, Sage Publications); and *Working women: Stories of struggle, strife and survival* (2009, Sage Publications).

complexities and possibilities. In addition to this, federal funding cuts, national and global economic trends, industry demands, and the changing learner demographics place further pressures on higher education institutions.

These challenges create an imperative for higher education institutions to ensure that an inclusive, equitable and diverse online pedagogical framework is

> **"** *Seeking creative solutions in teaching and learning... is an imperative in online learning environments as it is in traditional face-to-face learning design.* **"**

adopted; one that respects and engages learners' and facilitators' knowledge and experience. Online pedagogy should be framed within an innovative solutions paradigm that is discipline-specific and context driven, bringing actioned change instead of succumbing to a 'best practice' and 'good teaching' compliance model of past decades. "Seeking creative solutions in teaching and learning as alternatives to 'best practice' and 'good teaching'" (Patel, 2011, p. 474) is an imperative in online learning environments as it is in traditional face-to-face learning design.

The new century demands innovative solutions in learning and teaching. Online learning design should empower tech-savvy and non-tech-savvy learning cohorts to apply their unique, creative energies.

ECTs in learning design should:

- enhance learning quality.

- enable learners.

- expand knowledge to deep levels.

- create alternate spaces for critical enquiry.

- encourage learners to action change in meaningful and visible ways.

Online learning design should be embedded within an online pedagogical framework. Educational development perspectives emphasise learning effectiveness and quality learning as critical components in learning and teaching across all delivery formats.

Pedagogical theoretical frameworks that subscribe to multiple learning and teaching theories should be considered and applied to online learning design, as relevant and appropriate to the learning context and learner needs. A wide range of learning theories (motivational, constructivist, instructional, and an integrated approach of prior learning with new learning) can be applied to online learning design.

Online learning approaches that constitute the technical uploading of face-to-face lectures (video recordings and streaming of ordinary lecture formats without requirements for synthesis, analysis and innovative solutions) and superficial supplements of learning

exercises (through the use of online quizzes, video and YouTube links) do not engage learners in deep learning. In such approaches, the pedagogical dimensions of learning and teaching are lacking.

Siragusa (2007) noted that there is also an absence of guidelines for designing effective online learning environments. Online learning design and delivery must meet the same high quality and standards expected in traditional face-to-face learning. Face-to-face learning and online learning are not exclusive practices. They subscribe to the same pedagogical principles and are interdependent, interrelated and complementary components of learning and teaching design in higher education. Online learning design should enhance the learning experience through critical, self-reflective practice and commitment to a socially responsible and just pedagogical framework.

Online pedagogy should give due consideration to pedagogical dimensions of effective learning design, regardless of the media through which teaching and learning is delivered. In other words, whatever the medium used to deliver the learning experience, it is important to recognise that the technology component of learning design should bring added value to the learning experience.

The decision in choosing an ECT is equivalent to the decision one takes when choosing a particular learning and teaching strategy, an appropriate activity, and audio-visual component to enhance and facilitate learning to a deep level of engagement to inspire action and change. The adoption of ECTs is only valuable if it is effective in making the learning experience inspiring, more comprehensible and more thought provoking to the learner.

Online learning, as a flexible mode of teaching and learning, is commendable because it expands learning access, provides an asynchronous alternate learning space, and increases the options to advance learning through multimedia. Multimedia provide enormous potential for learning, if designed and used correctly. Yeung-Fang (2001) cautions us to the possibility of "misusing and abusing" technology to perhaps cause negative effect on learning and learners.

One has to be perceptive and discerning in today's knowledge economy because not everything

> "The adoption of ECTs is only valuable if it is effective in making the learning experience inspiring, more comprehensible and more thought provoking to the learner."

holds quality and not all 'best practice models' are suited to the diverse needs of a changing demographic in higher education. Yeung–Fang (2001) contends that there is no 'one size fits all' approach to technology-enhanced learning.

> **"** *we should pause to celebrate, reward and promote the creative and innovative ideas that our learners and facilitators of learning continue to bring to the 21st century higher education framework.* **"**

Advocacy for innovative solutions that are context driven in online pedagogy is an imperative. Encouraging learners and facilitators to search for and to apply creative and innovative solutions ensures a critical thinking, educated and informed citizenry.

In a world that is in haste to catch the next technological glimpse of the future, when learners and teachers continue to navigate their local and global learning spaces with trepidation and excitement, we should facilitate online learning to produce innovative solutions. We should pause to celebrate, reward and promote the creative and innovative ideas that our learners and facilitators of learning continue to bring to the 21st century higher education framework. ∎

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Where to start?

Lauren Hives, eLearning Applications Administrator, advises:

"iLearn provides a starting point for blended learning and a familiar environment for students who are likely to have experienced a similar learning management system in prior studies. The materials can be stored and presented as text or media rich learning objects. If an educator chooses to go further with blended learning, then there are tools within iLearn that allow for online collaboration, communication, evaluation and assessment."

Questions to Ask When Transitioning to Blended Learning

Decisions to integrate education communication technologies (ECTs) should be made after careful examination of the pedagogical impact that a blended learning approach would have on learning and the learner. Dr Fay Patel presents questions that may be useful in blended learning design below.

- What added value will technology bring to the learning experience?

- In what ways does the technology enhance learning opportunity and result in meaningful engagement with learning?

- How is knowledge shaped and reshaped as a result of the technology?

- What evidence base is there that deep level of learning has occurred as a result of technology embedding?

- Is technology embedded as 'education entertainment' or 'education imperative'?

- In what ways has the technology enabled the learner to think critically, and to become deeply conscious of social responsibility and justice?

- How has technology impacted the ethical behaviours of learners and facilitators of learning?

BUILDING INDUSTRY LINKS

WITH INNOVATIVE TECHNOLOGIES

> **"** To date I've only scratched the surface – as we move into real blended learning we will need to produce better online content – this requires time, software and expertise and will require considerable support from the university if it is to be successful. **"**
>
> - Associate Professor Rick Best

Fast Facts:

- **Faculty** - Institute of Sustainable Development and Architecture

- **Subject** - Integrated Measurement and Professional Practice

- **Level** - Undergraduate and Postgraduate (separate classes)

- **Enrolment** - 20-30 per semester

- **Media used** - blog/ discussion board on iLearn; video recordings of lectures; lecture slides with audio converted into MP4 videos; remote delivery of guest lecturers; Collaborate online

- **Blended activities** - a multi-pronged approach to combining online discussion threads, multimedia-enabled lecture storage, live weekly online meetings combined with face-to-face workshops

- **What's unique** - The sheer diversity of different tools and approaches used to combine traditional and technology-enabled learning.

Blended Learning Activities

At the Institute of Sustainable Development and Architecture, blended learning is an important part of the educational landscape. Associate Professor Rick Best describes the faculty as engaging on a "new adventure into the blended/online world" and points to a number of current and future initiatives which take advantage of all that blended learning has to offer.

Reflective blogs and open discussion forums using iLearn have been part of the assessment for some subjects for several years. These are open blogs so students can see each other's posts and add comments as well as starting new threads themselves.

Live recordings posted on iLearn following lectures were made available to learners. These were not edited or produced in any special way. In addition, the presentation slides and an audio track were linked through a screencasting program called *Camtasia*, to turn the recording into an mp4 video file. This could be watched or listened to by students who couldn't attend the lecture and also for ESL students (among others) to review the lectures.

Another popular activity is remote presentation delivery by guest lecturers. One industry guest made a presentation using a program called *GoTo Meeting* which allowed students in face-to-face classrooms at Bond to link up with the lecturer in his office in Brisbane. The activity, including both *PowerPoint* slides and audio, was quite successful.

One exciting initiative for the upcoming semester, led by Dr Craig Langston, is a fully blended learning course combining an intensive two day face-to-face workshop at Bond with weekly virtual class meetings through Blackboard's Collaborate, an online learning platform.

Reason for Choosing Blended Learning Approach

One critical factor for adopting a more blended approach to teaching revolves around providing flexibility for the students. The learning of the students, and indeed the overall experience was greatly enhanced through giving the students different options and choices.

Another important element was to use engaging teaching tools, ones which both piqued students' interest and participation. One example of this was a reflective blog and discussion board through which students made comments as well as reacted to their peers' posts.
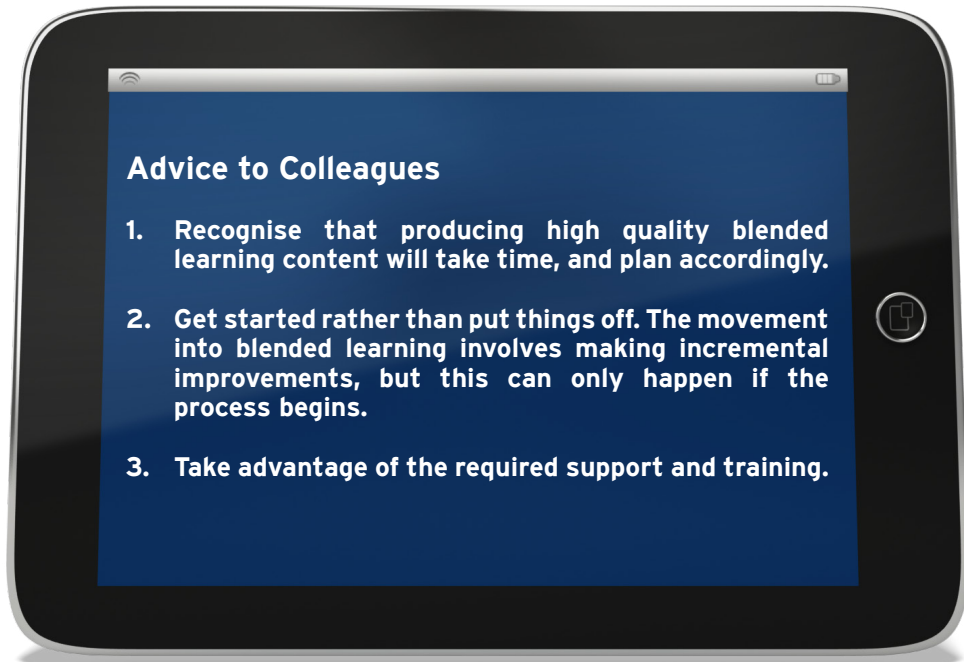
Benefits and Successes

Student responses and participation to blended learning activities have been most encouraging. For example, over 120 blog posts plus numerous additional comments on those posts were made by only 12 postgraduate students. Given that many of the students have grown up with texting, rather than writing, as their preferred method of sending messages to their friends, it follows that a virtual discussion board would be a popular choice to discuss and debate various topics.

Obstacles and Challenges

Making blended learning work, like anything, takes time. Sometimes people underestimate the time and effort required to transfer existing resources and activities into blended learning. While it does take significant time for academics to initially set up and run blended learning activities successfully, once that time is spent most academics will find that it was an investment well made.

Another challenge can be getting the initial buy-in by students to participate in certain non-traditional activities. Dr Best described it as sometimes taking a bit of cajoling to kickstart participation, but once it gathered momentum the students contributed a lot. ■

Advice to Colleagues

1. Recognise that producing high quality blended learning content will take time, and plan accordingly.

2. Get started rather than put things off. The movement into blended learning involves making incremental improvements, but this can only happen if the process begins.

3. Take advantage of the required support and training.

Getting to the
HEART
of Blended Learning
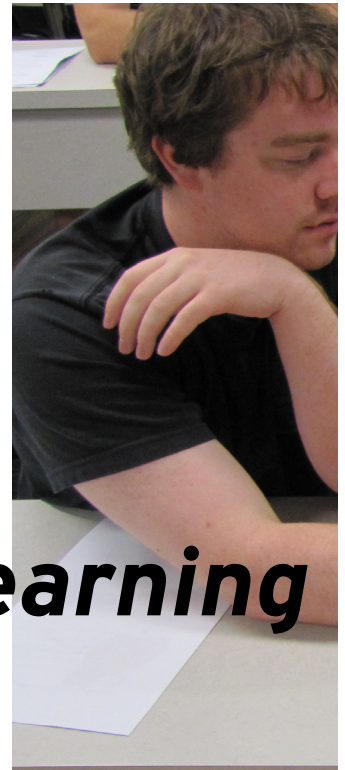
Fast Facts:

- **Faculty** - Humanities and Social Sciences & Health Sciences and Medicine

- **Program** - MBBS medical program

- **Subject -** Human Anatomy

- **Level** - Undergraduate

- **Enrolment** - 85 students

- **Media used -** mobile application and mobile devices

- **Blended activities** - This mobile application allows for students to interact with a 3D model of a heart while working with other students to complete various learning tasks and activities

- **What's unique** - The quality and level of interaction with the 3D heart app for the iPad.

Overview

Funded by a Bond Office of Learning and Teaching grant, this project involved the development and deployment of a custom-built iPad app looking at the anatomy of the heart. Multiple modes of representation were included together with three-dimensional models that the students could interact with. This project is currently being disseminated through journal publications and we are proud to recognise Allan and James for their hard work.

Blended Learning Activities

1. Exploration of the anatomy of the human heart through a custom made iPad app. This enabled a tactile manipulation of the organ, allowing students to see and 'feel' the various components while they learned about it.

2. The blending of various media including text, images, audio explanations, and 3D models. Having a variety of different media is a great way to encourage student engagement and participation and make the learning activity fun and interesting. It also enabled a

Atrial 3D

Ventricular 3D

Anterior Annotated

Atrial Annotated

Ventricle Annotated

Posterior Annotated

B
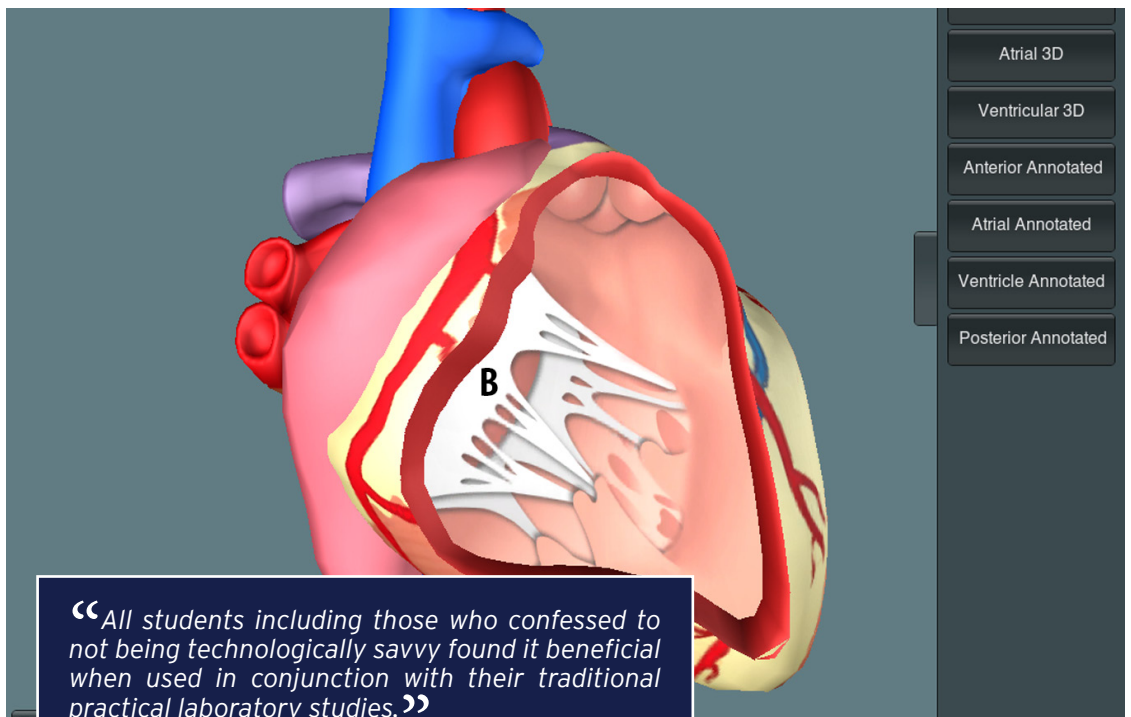
> "All students including those who confessed to not being technologically savvy found it beneficial when used in conjunction with their traditional practical laboratory studies."
>
> - Assistant Professor Allan Stirling

deeper understanding of the core concepts than a traditional text based two dimensional image would have.

3. This blended approach allows group discussion and debate while virtually exploring the various parts of the human heart. As students experienced the blended learning activities, they could work in groups to discuss related concepts and theories, ask each other questions, and brainstorm ideas and observations.

Reason for Choosing a Blended Learning Approach

We know that students learn in differing ways and at differing paces. Anatomy, being a visual subject must make allowances for active experimentation and understanding the subject three dimensionally. Textbooks are limited in their very nature and so by blending in text, images, 3D models and narrated podcasts, we provide a tool that students can use to learn the subject matter in a variety of ways. Through deployment as a web application we allow the students to take ownership of when they study as we get rid of time constraints- they can study at home whenever they'd like.

Benefits and Successes

Although this was first conceived as a research project, the feedback was overwhelmingly positive. Students enjoyed the hands-on element which allowed them to manipulate the virtual heart as they learned. The addition of various forms of media such as audio narration

also enhanced the learning experience by providing a diverse range of blended resources.

As with most blended learning activities which take advantage of the popularity of certain technologies or devices, this project recognised and drew upon the students' high regard for the iPad, as well as various learning apps.

Obstacles and Challenges

The process was quite labour intensive. It was quite costly in terms of output as this was only for one discrete module within a larger program. Future topics can, however, now be produced using this template which will speed up the process.

Advice to Colleagues

1. Organise and plan your blended learning activities carefully. The planning stage is the most critical as you need to consider the end user and their learning styles/ preferences. Doing things too hastily without adequate thought or preparation can lead to disappointing results and a lower level of student learning. Try to see the big picture clearly before you work on minute details.

2. Don't try to do too much. Overloading an activity can diminish the learning value

> "*We should strive to offer students a range of blended multimedia materials and learning pathways that acknowledges both the variety of student learning styles, preferences and the multi-disciplinary context to prepare students for a future in the digital economy.*"
>
> - Assistant Professor James Birt

which students get out of it. For example, we were careful not to cram too much information into our application as that could actually be counterproductive.

3. Look at the diverse needs and situations of your students and try to address them. Offer different forms and features to both encourage learner participation and engagement. ∎

What should Bond aspire to in blended learning?

According to Peta Hopkins, Manager, Digital Library Services, Bond should aspire to:

- *the best learning experience we can offer to our students.*

- *engaged students who feel connected to Bond.*

- *content delivery tailored to the learning & teaching needs of each subject.*

- *face-to-face interactions enhanced as a result of using other interactions between class times.*

- *staff who feel confident to be creative with their teaching and supported in those endeavours.*

Crafting Minds in *Minecraft*

Fast Facts:

- **Faculty** - Humanities and Social Sciences
- **Program/Subject** - Bachelor of Computer Games / Computer Game Industry & Policy
- **Media used** - There is a diverse and varied range of media used (and created). The stand-out media which makes this project so amazing is the use of a collaborative and interactive virtual world, the *Minecraft* world, in which the Bond University campus was recreated, brick by brick.
- **Blended activities** - Student co-operation and interaction in the virtual Bond world, the development of a constructive community of learners both online and in class, a digital repository for subject resources, students' notes, and assignments.
- **What's unique** - Students sitting together in a classroom at the Bond campus while their avatars work together in the virtual Bond campus at the same time. An enhanced sense of group discovery, co-operation, unity and constructive learning (literally and figuratively).

Overview

Professor Jeffrey Brand uses technologies in innovative ways to teach creative media students. Across 19 years, he has unleashed the capacities of the latest technologies for enhanced empirically-evidenced learning and engagement. He created a multi-media lab, added mobile learning and then worked alongside his students, brick-by-brick to create a virtual campus. When a cyclone closed the university, Jeff and his students engaged with one another and online books in the library of the virtual campus.

In a subject designed to prepare students for the computer gaming industry, this Bond university professor is taking a constructivist view of education in more ways than one.

Jeff's students craved the ability to learn through a dynamic virtual space that they could create and control. That space was developed in *Minecraft*. This virtual world has been described as online Lego. Whereas in other virtual worlds, participants import pre-built environments and furnishings, in *Minecraft*, they imagine, create, build and use their own. The United Nations' Block by Block project was a project wherein people living in poor neighbourhoods re-envisioned their own communities using the software. In 2012, working collaboratively with his students, Jeff started rebuilding the Bond University campus, block by block, in *Minecraft*. Using avatars, he and his students walk around the lake, into the library and take books off the shelf to read, and later meet in a seminar room for group discussion. The books are written by students, as they create their assignments for the virtual world.

> "*Many of us play online together, so the new learning environment was very comfortable to get into ... Being present in the virtual model of our classroom, having the ability to see our class members and what they were doing made it feel just like class, but with experience points and a chat bar! I felt more obliged to answer every question in Mineclass, every class member seemed to try and answer all the questions.*"
>
> - Student, national media interview, 2012

Blended Learning Activities

1. Creation of a simulated virtual Bond campus through *Minecraft*, an online Lego-style world building application.

2. Conducting classes, discussion and collaboration online within the created *Minecraft* Bond world. Students often engaged in face-to-face discussions and peer learning on different aspects, sharing tips and pointers on virtual best practices.

3. Populating the online Bond library and bookshelves with learning artefacts, including weekly lesson notes, learning resources and assignments. In addition to visually spectacular, the online learning world was also one rich in resources and learning materials, as well as place for sharing and collaboration.

> **"**Gamers have had enough of reality. ... they're the kids and teenagers worldwide who would rather spend hours in front of just about any computer game or video game than do anything else. ... The real world just doesn't offer up as easily the carefully designed pleasures, the thrilling challenges, and the powerful social bonding afforded by virtual environments. Reality doesn't motivate us as effectively. Reality isn't engineered to maximise our potential. Reality wasn't designed from the bottom up to make us happy.**"**
>
> (McGonigal, 2011, pp. 2 - 3)

4. A combined simultaneous face to face and virtual classroom where students worked together in the real world as their avatars did likewise online. This included students huddled around computers brainstorming new ideas and creative solutions on how to construct and improve the virtual learning experience.

Reason for Choosing Blended Learning Approach

The students who enrol in creative media degrees are usually 'gamers.'

Such students, having carefully selected a degree in creative media, expect to arrive at university and finally experience learning "pleasures" including "thrilling challenges" and "powerful social bonding" with like-minded souls (Kinash & McLean, 2012). They expect to be "motivated" and to be invited to "maximise potential" and be "happy." Instead, what they often experience are: being told to put their laptops under their seats and sit still and listen to long boring lectures (Prensky, 2012).

The challenge to which Jeff responded was to apply creative approaches, through emerging technologies, to the support of learning and teaching that influence, motivate and inspire students to learn. The theme of this case study is the use of technology in technology teaching.

Applied Theory

A growing body of research indicates that student learning and/or engagement is enhanced when learning technologies are thoughtfully embedded (Keppell, Suddaby, & Hard, 2011). Whereas for most students in any discipline, learning through technology is value-added, for students enrolled in creative media programs, learning through technology is essential for two reasons. First, students need to learn the technologies that they will be using as alumni in industry (Forsyth et al., 2008).

Second, students who are drawn to creative media content have a learning profile that benefits from digital approaches (Prensky, 2012). Benefits and Successes

Benefits and Successes

One of the most noticeable benefits of the project was the incredible student interest, participation and excitement for the project. Ron Kordyban from the Office of Learning and Teaching had the opportunity to observe the class in progress; it was obvious that the students were enthusiastic and motivated to share, learn together and also teach each other.   Another successful element was the cohesive sense of learning community which was established. Whether it was the students or their avatars, the famous Bond sense of personal connection and quality student experience came shining through.

Obstacles and Challenges

One of the biggest challenges occurred when an ex-tropical cyclone closed the campus at Bond and threatened to cancel the Tuesday class. Dr Brand replaced the face to face class with one in the virtual learning space which had been created. Students sent their avatars to the *Minecraft* campus and attended there instead. The lecture slides were available and students took advantage of the instant messaging chat in Minecraft to ask questions and participate.

Advice to Colleagues

Whether it's your first venture into blended learning or your fiftieth, don't be afraid to try something new, and to have fun. Invite the students to have their voice and be an active part in their learning. ∎

Students create, share and access weekly lesson notes in the virtual Bond library.

To Read More About This Project

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Turn Education on its **Head** and

Flip the Lecture

Sometimes when we talk about blended learning we hear the expression "flipping the classroom". Although not all blended learning uses this approach, this is an excellent example of how a particular type of blended learning can act as a transformational catalyst in education.

'Flipping the classroom' refers to a teaching style which uses various kinds of multimedia and technology to present learning content to the students outside of the classroom. This frees up the teacher to do other things in the face-to-face environment. It essentially transfers the role of the teacher from content delivery vehicle or 'sage on the stage' to the role of learning facilitator, or 'guide on the side'.

Key elements of flipping the classroom teaching include:

1. The use of technology and virtual learning spaces outside the class/lecture to deliver learning content.

2. The role of the instructor becomes focussed less towards the presentation of content and more towards facilitating student discussion and application of it.

3. Students are expected to be more responsible for their learning, and to take an active part in the process.

4. Teachers provide a variety of different learning resources. This could be different levels of difficulty or material in different formats, such as videos, interactive games, or readings.

5. Unlike traditional teaching where everyone gets the same lecture and the teacher may find it necessary to teach to the middle of the group, students in a flipped lecture study the content at home on their own. This allows for learning at the learner's own pace, style and difficulty level since the student can select the provided resources which are most appropriate for them, and review the materials as often as they like.

6. The role of 'face to face learning' changes from teacher based content lectures to concept discussion and engagement facilitated by the instructor.

LEARNING TO PODCAST AND PODCASTING TO LEARN

Fast Facts:

SPOTLIGHT ON: PROFESSOR MARCUS BREEN

- **Faculty** - Humanities and Social Sciences

- **Subject** - Communication Research Methods

- **Level** - Undergraduate

- **Media used** - Recorded audio podcasts made by the academic in Audacity sound recording and editing software. These mp3 audio files are then uploaded into the subject iLearn site where students can play to them online, or download the mp3 files to listen to on their own device.

- **Blended activities** - Providing students with downloadable files is a great way to allow them to take learning with them and add it into their daily lives. You could also turn the tables whereby students make and upload podcasts for a truly student-centred learning experience.

Overview

After selecting various key topics and content, Professor Breen read and recorded the material for upload onto the iLearn site. This included a regular series of podcasts which were made throughout the semester. These helped the students review important concepts, as well as provided a mobile 'bring your own device' friendly way to encourage and allow students to extend their learning out of the lectures and tutes and into their daily routines. As with many blended learning resources, compared to traditional assigned textbook or article readings, the shorter and more engaging podcasts

are much favoured by students.

By adding his own recorded podcasts to the subject's iLearn site, Dr Breen has made the content more accessible, easier to understand, and more personal, given it was being read in the professor's own voice rather than by a person unknown, or even just text. The students knew that the material had been selected and read by the professor just for them, and this extra effort and caring enhanced the learning and the student experience.

Blended Learning Activities

1. A series of podcasts were made to supplement the lecture material and allow students who didn't have the textbook access to key concepts or points.

2. The podcasts were uploaded onto the Blackboard learning management system so that students could access the recordings through the iLearn site, including download the mp3 files to play in their own devices such as smartphones or portable music players.

3. Additional materials such as sound effects, pre-recorded sound clips, or historical recordings can be added to make drier content more interesting and fun, create better student engagement or to make use of quotations from famous people.

Reason for Choosing a Blended Learning Approach

There were several reasons that blended learning worked well in this example, and why it was chosen to help enhance the subject in the first place. The use of podcasts met the need to supply additional and alternative resources to reinforce key points from the lectures and textbook. The related e-learning tools were also accessible and easy to use. The instructor wanted to incorporate technologies familiar to the undergraduate students, and to
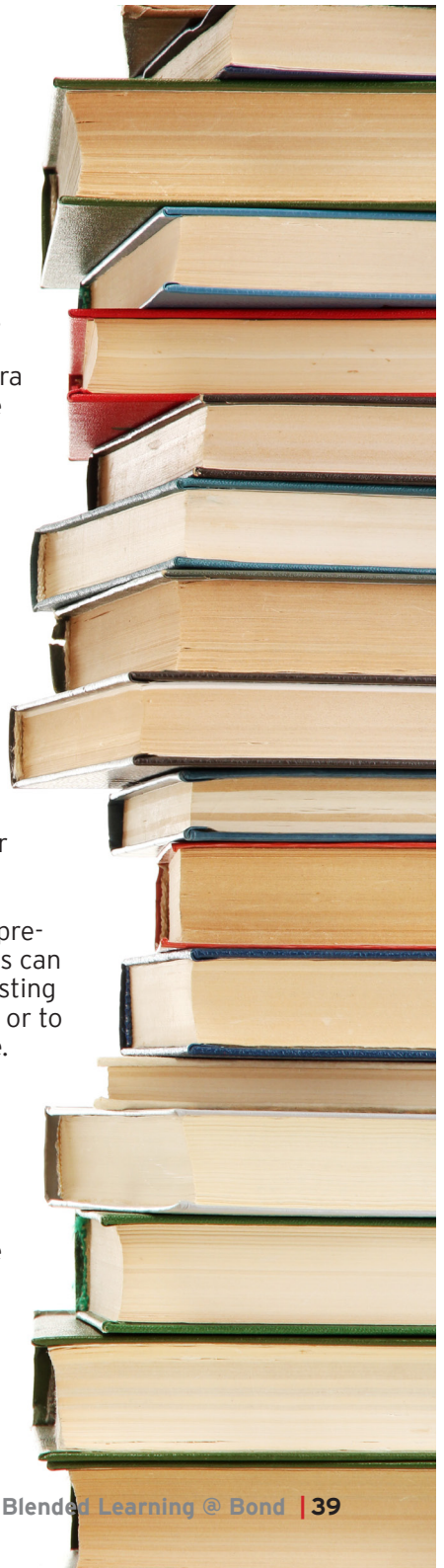
provide them with different and new pedagogical mechanisms which could be accessed online at their convenience or played in mobile devices for 'learning on the go'.

Benefits and Successes

The students were generous and quite positive in their support for the podcasts, with some eagerly awaiting the next instalment in the series. In cases like this, where the teacher is trying new technology or new blended learning approaches, in addition to the students benefitting, the exercise can also be a valuable learning experience for academics.

Obstacles and Challenges

Additional time is required to select appropriate and meaningful content as well as actually record the learning material, even though the software was fairly easy to learn and use.

There is also the uncertainty of to what degree the podcasts assisted the students and how to make improvements for future podcasts. As with many review resources, the perennial questions for instructors is whether or not it was infantilising the students, or was seen as a useful and meaningful tool. I think most students will agree that the podcasts were a great way to make the material more accessible, more engaging and easier to understand.

Advice to Colleagues

Offer the widest possible array of options for student engagement with the subject matter. This is especially the case where many students are no longer purchasing textbooks, nor reading them. ■

Increasing Student Engagement Using Podcasts

Podcasting can be an innovative tool to support learning. Podcasts can be a combination of audio, video and text. One of its advantages is that podcasts can be downloaded to local devices for playback at the listener's convenience, and as many times as the listener wants.

Here are some tips for increasing student engagement using podcasts from Dale (2007) *Strategies for using podcasting to support student learning* and *Learning to teach online: Developing high quality video and text resources to help educators teach online*, a 2011 Australian Learning and Teaching Council project led by Simon McIntyre:

- **Use podcasts in these distinct ways:** 1) describing research methods; 2) support for assignments; 3) explaining key concepts; 4) student feedback

- **Make expectations clear**

  It is important to clearly outline how podcasts fit into the program of study, how many they can expect, how you expect them to be used, and what benefits can be expected.

- **Engage the listener**

  Embed visuals in the podcast to illustrate particular concepts. Use 'thinking pauses' to allow the student to stop, think and reflect in response to a question raised in the podcast.

- **Provide 'nuggets' of information, rather than large chunks**

  Break down the content into smaller sections, each aligning with the key objectives of the module. This way, students are able to quickly and easily move between key concepts in the curriculum to recap without having to search through 2-hour long podcasts. As a general rule, limit podcasts to 10 minutes maximum.

- **Offer opportunities for deeper engagement**

  Embed hyperlinks to additional resources in your podcasts, to provide opportunities for students to read further. They may link to resources you've previously developed to help students cross-relate concepts, or news articles demonstrating relevance.

Sources:

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McIntyre, S. (2011). Learning to teach online: Developing high quality video and text resources to help educators teach online. Sydney, NSW: Australian Learning and Teaching Council. Retrieved from http://online.cofa.unsw.edu.au/learning-to-teach-online/report

Global Leaders
On-The-Go

Fast Facts:

- **Faculty** - Business

- **Program** - Bond University-BBT Global Leadership MBA

- **Level** - Postgraduate

- **Enrolment** - 400+

- **Media used** - Camtasia; Adobe Connect for Virtual Classrooms; iLearn discussion boards; Skype; Google Documents

- **Blended activities** -

    PowerPoint lectures are provided with voice recording;

    Online distance tutorials;

    Discussion board for weekly student discussion;

    Students initiate study groups in their home cities.

- **What's unique -**

    The program is designed exclusively for Japanese executives and professionals, and delivered in partnership with Business Breakthrough, Japan's leading Business Education Channel.

Overview

Since 2001 the Faculty of Business at Bond has been reaching out to students from around the world, offering them a chance to experience the Bond difference. The Global Leadership MBA has had over 700 graduates, mainly from Japan (87%), but also including countries such China, the US, Germany, Poland, India and Vietnam. It also has some domestic students spread across Australia.

> "*The Bond-BBT MBA program utilises the latest instructional technology to provide a flexible mixed-mode delivery of Bond University's leading MBA degree.*"
>
> - Bond website

The mode of delivery is primarily online, though students are required to include 10 credits of face-to-face learning as well. This takes place during the Bond campus study tour section of the program, when students complete subjects in 'executive mode' for a total of two weeks on campus.

Blended Learning Activities

There is a diverse variety of e-learning tools and technologies in the online portion of the program, including lecture recording through Camtasia, online tutorials in the virtual classrooms of Adobe Connect, weekly student interaction through online discussion boards, and Webinars by local practitioners and experts. In addition, students typically communicate through web-based communication tools such as *Skype*, online wikis, or multi collaboration applications such as Google document.

Reasons for Choosing a Blended Learning Approach

The online and blended learning elements of this program were designed to maximise both the reach to students and accessibility of materials and interaction. It was set up with the full-time working student in mind. Videos and other materials can be downloaded and watched while they have a pause in their hectic schedules, such as while commuting to work or on their lunch break.

In terms of accessibility, the range and variety of different e-learning tools used tools used, and the personal study tour portions greatly complement each other by combining convenience without sacrificing the personal learning for which Bond is famous. It is also a perfect approach to education global leaders on-the-go.

Benefits and Successes

The anytime, anywhere convenience and flexibility has proved a successful combination for busy overseas students for over 12 years! Over this time advances in technology have seen a marked reduction in the cost of production and the cost of related hardware and devices, both for the university as well as the students.

This award winning program has received impressive recognition, including:

- Gold Coast Business Excellence Award- Information Technology (2005)

- Queensland Government Export Awards, Gold Coast Region- Information and Communication Technology Award (2005)

- Gold Coast Business Excellence Award- Trades, Professions and Services Award (2007)

- International Education Association of Australia- Award of Excellence in International Education for Best Practice/ Innovation in the Field of International Education (2010)

Obstacles and Challenges

One drawback of using a variety of different technologies to enhance learning is that technical issues such as server problems, bandwidth issues, problems with iLearn, sometimes interrupt the learning. There can also be problems related to unifying communication as there are several different platforms being used by students.

Non-technical problems include different native languages among students as well as student retention.

Advice to Colleagues

Research the available technology carefully, test it thoroughly before launch and make sure instructors have had adequate training and support. It's always good to have tech support handy, just in case. Also be mindful of possible hidden costs, particularly in production and upgrading over time. ∎

What will university teaching look like in the future?

One Bond educator reflected on the future of the university classroom:

"Maybe in the next 20 years we're going to be setting up learning pods where we have quite a different role and there'll be self-directed learning groups. We'll need to provide the right sort of materials so that they can lead their own learning groups. I suspect that that's the stage we're at, and I think we're also going to have a role in lifeline and professional learning by supporting the various professional groups meeting in the workplace or meeting in the community hall or whatever... students rock up, get a table."

BLENDED PROJECTS
LEARNING BY DOING

Fast Facts:

- **Faculty** - Institute of Sustainable Development and Architecture

- **Program/Subject** - Principles of Project Management

- **Level** - Postgraduate

- **Enrolment -** 19 (Semester 132)

- **Media used -** PDF course notes, instructional videos, website links, case studies, simulation software, graphics

- **Blended activities** - Weekly online discussion (asynchronous), live Q&A via Blackboard Collaborate every Saturday, impromptu on-campus tutorials (recorded in Camtasia), online submission/ feedback, face-to-face workshops

- **What's unique** - project-based learning strategy, learning by doing, personalised 1:1 tutorial model, authentic project, interactive blog
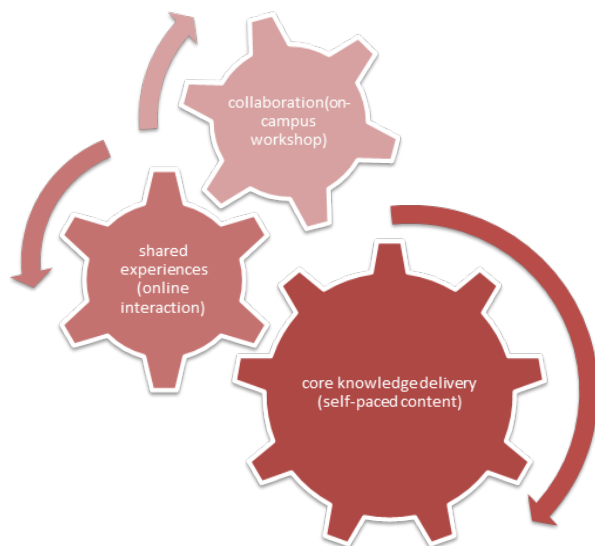
Overview

Managing complex projects involves an understanding of the processes, techniques and tools used in the discipline of project management. This subject explores these systematically using the internationally recognised Project Management Body of Knowledge (PMBOK) as a foundation. Project integration, scope, time, cost, quality, human resource, communications, risk, procurement and stakeholder management reflect the generic knowledge areas that combine to support successful project implementation.

In this subject blended learning is used as the delivery strategy, combining weekly online content delivery and peer discussions with a two-day on-campus workshop aimed at practical implementation issues. Students prepare a detailed plan for an authentic project with the help of a personal 'coach' to provide individual direction and advice. Students are given details for a real project (e.g. The Edge, Torquay), but may also nominate their own alternative problem/project if they have a special interest.

Knowledge transfer is undertaken via discovery as part of the learning environment. Comprehensive online notes are provided, with videos, text book, websites and other resources made available through iLearn. The subject therefore uses a knowledge 'portal' to underpin the learning process. In this context, blended learning is a particularly empowering opportunity for both students and teachers. Students are able to take more responsibility for their studies and make more memorable connections between discipline theory and practice. The mix of course notes and texts, short videos, evaluation tools and models, all underpinned by technology, augment on-campus activities, introduce more flexibility, and support deeper engagement.

The idea of 'blended projects' is defined as learning by doing underpinned by interactive technologies. In my view, blended learning is more effective than the traditional lecture and tutorial model. The days of 'preaching' to the unconverted, or even the disinterested, will soon be over.

And that is a good thing.

Integration management model, developed in this subject
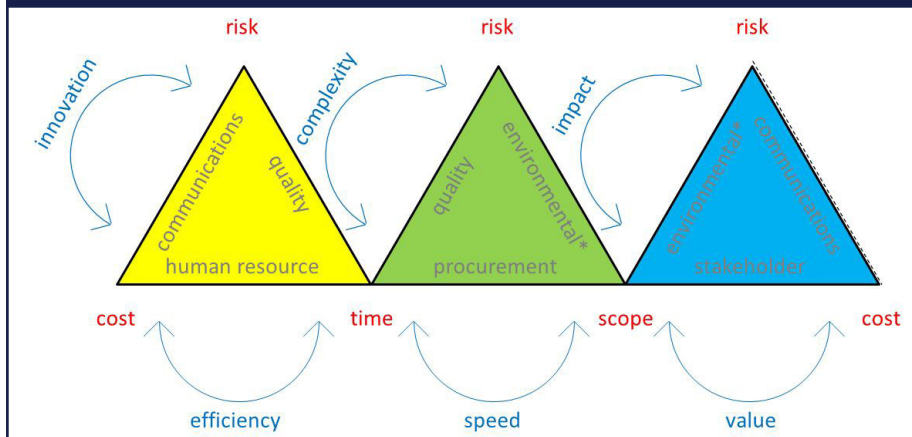
Benefits Learning Activities

In Semester 132 this subject was taught using online activities and a two-day intensive workshop in Week 7. Base knowledge was made available from Week 1. Assessable discussion took place each week to ensure engagement occurred with the course notes and text. A discussion forum was created, students posted their contributions to a particular issue posed by the teacher, and assessed the contributions of others using the star rating feature provided. Weekly contributions had to build on or critique what was already posted.

There was also a real time online Q&A every Saturday afternoon for up to 1.5 hours, undertaken using Blackboard Collaborate, and this was recorded for those that couldn't participate. An assignment blog was maintained throughout the semester where anyone could share information and ideas related to the project.

Reasons for Choosing a Blended Learning Approach

This subject was chosen as a pilot to see whether on-campus attendance for a subject could be reduced to enable a wider market to engage, such as people in remote areas or with busy day jobs. Yet we still wanted some on-campus experience. As the classroom component was halved, it was important that students didn't feel that they were not getting value for money. So a personalised 1:1 tutorial model was adopted, aka Oxford and Cambridge, where the student acted as an 'employee' of the firm managing the project and the teacher acted as a professional 'coach' contracted by the firm to develop their staff. The coach indicated that he was available for assistance anytime, anywhere.

Benefits and Successes

The success of the subject can be judged ultimately by the quality of

the work produced by the students. The quality was extremely high. Even some of the poorer students managed to produce good work through the level of support they received. Certainly the subject was more engaging than a traditional lecture/tutorial model, and more memorable. One student said they would even like to do the subject again next semester, as they enjoyed it so much, and so they could learn even more about managing projects.

Obstacles and Challenges

The biggest challenge was pre-conceived ideas. Several students were disappointed to learn that the on-campus workshop was reduced. Some did not respond well to taking more responsibility for their learning. A bigger commitment was needed by the teacher, as a lot of time was involved in learning about the technologies and being at call. This time commitment was not ridiculous and was actually quite enjoyable and rewarding.

Advice to Colleagues

It is worth reflecting on whether knowledge transfer requires traditional lectures. I believe too much time is devoted to transfer, and more quality time working alongside students on a real project may just be a whole lot more effective. I would not want to go back to a traditional approach having completed this semester! ■

UNDERSTANDING COLLABORATE

WHAT IS IT?

CLASSROOM
Run a virtual class and open more possibilities to more students, wherever they are.

OFFICE HOURS
Provide students with the opportunity to consult with you online when they are unable to be on-campus.

MEETINGS
Hold virtual meetings with students, peers, and researchers from anywhere in the world.

(((THE WORLD

HOW TO GET IT

iLearn@Bond   Subject Tools   Blackboard Collaborate

Need Help?

ilearn@bond.edu.au

CLASS INTERACTIONS

The 'Real' Classroom	The 'Virtual' Classroom
The Educator	Webcam / Avatar of the Educator
The Whiteboard	Interactive Whiteboard & Desktop Sharing
The Raised Hand	Raised Hand Button with Ordering
The Question or Comment	Text Chat, Voice & Whiteboard
The Group Discussion or Activity	Breakout Rooms & Page Creator
The Audience Feedback	Video, Polls & Emoticons
The Handout	Downloads & Automated Distribution
The Toilet Break	'Away From Keyboard' (AFK) Button

Discovering
SCREENCASTING

Fast Facts:

- **Faculty** - Business

- **Subject** - International Finance

- **Level** - Undergraduate

- **Media used** - This subject uses as variety of multimedia, including screencast presentation slides with a narrative audio track converted into a mp4 video file which is then uploaded to the subject's iLearn site.

- **Blended activities** - The use of narrated videos of the lecture content helps students who missed, or would like to review the lesson materials. Having key concepts or common misunderstandings and questions available in multimedia form also helps to pre-empt problems that students encounter.

- **What's unique** - In addition to embracing the blended learning approach in her subjects, Dr Southam is active in setting up exemplar and template resources for her colleagues in the Faculty of Business. As a leader and role model in this field, her energy, attention to detail and high standards of excellence serve her well.

Overview

More and more academics are embracing blended learning as they are exposed to successful examples of their peers. One of the easier and more efficient ways of making the transition from traditional face-to-face only instruction to a blended learning format is to utilise technologies which allow us to make use of existing materials rather than starting again from scratch.

This case study demonstrates the successful use of such a technology by Assistant Professor Southam. In addition to adding these resources to her iLearn site for the students, they are also valuable to help demonstrate blended learning tools and techniques to her faculty colleagues.

Camtasia is a program which allows you to convert your existing Powerpoint slides into videos with an added audio narration. It can be as simple as running through your Powerpoint slides at your desk while you talk into a microphone. Or you can do more. Other more advanced options include adding a video of yourself in the corner of the screen, or adding sound effects, arrows, spotlights and other visuals onto your slides. The choice is yours.

Blended Learning Activities

1. Using Camtasia to add voice narrations to presentations slide and convert them to videos to add to an iLearn site.

2. Engaging students to take more responsibility for their own learning by offering them the option of looking at common mistakes and questions through presented multimedia examples.

3. Sharing blended learning tools and techniques with other lecturers to spread the word and establish templates and exemplars.

Reasons for Choosing a Blended Learning Approach

As with many subjects, in teaching international finance, there are some quantitative problems (for example, identifying and exploiting a triangular arbitrage) that have multiple steps and decisions points. Every semester, some students have difficulties with these topics and Colette works through the same examples multiple times in class, then in tutorials and again in her office during consultation hours. Camtasia enables the students to hear her voice as she works through a numerical example. The spotlight tool enables them to follow the calculations and clearly see the information as she presents it. In addition, putting the blended learning resources on iLearn is very helpful for the students who can access it anytime and anywhere for review.

Benefits and Successes

Essentially, this technology has enabled Dr Southam to capture her explanation along with pointing
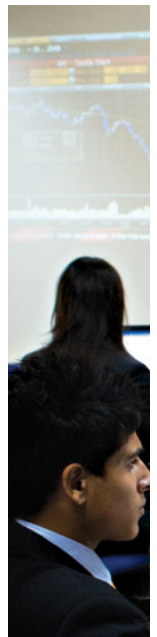
> **"** *It gives students the convenience to 'hit play' as many times as they want at a time and place that is convenient for them.* **"**
>
> - Assistant Professor Colette Southam

as though she were at the white board and place this onto iLearn for students. It complements her face-to-face lectures by providing both convenience and flexibility. Students have the convenience to replay and review the materials as often as they want, and the flexibility to do so at a place and time of their choosing.   For the instructor, it frees up office hours to focus on messier 'real world' problems where no "algorithm" or blended learning resource can be developed. The time spent making the resource is more than made up by the time saved by its use by students.

Obstacles and Challenges

Although it is not a difficult program to use, Camtasia does take a bit of practice, especially for the more advanced special effects. Fortunately, the Office of Learning and Teaching can offer all the support you need, including a fully equipped recording room with all the software and hardware you need, and an expert in the next room to help you.

Advice to Colleagues

Don't worry about making your resources perfect, especially at first. Try new things and decide what tools work for you. With time and practice your resources will see great improvement and your students (and yourself) will appreciate the difference it makes in learning and teaching.

Don't hesitate to take advantage of the training and other support available at the university. If you want to try something new then ask around and see what others are using/doing. You'll never know if something fits with your learning style and needs unless you get out there and change things up a bit. ∎

What Can Blended Learning Offer?

According to *Senior Teaching Fellow Susie Ting, Faculty of Humanities and Social Sciences*, blended learning can offer:

- A variety of materials/learning experiences
- Speed and efficiency of delivery
- Measurement of student engagement (via iLearn)
- Immediacy of updates (RSS and notifications)
- Flexibility of delivery
- Recency of materials
- Practical engagement with course materials and peers
- Increased student in-class interaction (especially NESB)
- Exposure to and interaction with new communication technologies
- Potential for high quality materials/delivery
- Means of targeting multiple intelligences
- Opportunity to make more static parts of course content available as resources (to view before to classes as in flipped classroom), thus providing more time to update with latest data/research
- Provides reliable resource in the event of lecturer/tutor absence
- Opportunity to 'invite' others in to the classroom (eg via Skype)

Teaching English and Discovering the *World*

Fast Facts:

- **Faculty** - Humanities and Social Sciences

- **Subject/Program** - Teaching English in a Diverse Context/Master of Arts (TESOL) (Online)

- **Level** - Postgraduate

- **Media used** - Video files (mp4) of lecture slides with accompanying audio walk-through; audio-only files (mp3); Blackboard Collaborate; lecture slides in pdf format

- **Blended activities** - Combined online activities with teaching observation and practice in classrooms located in the students' countries

  Use of recorded TESOL lectures from Bond for observation/ demonstration purposes

  Optional 1-week visit to Bond campus to observe and practise teaching

- **What's unique**: This project integrates the existing language teaching courses and resources currently available at Bond with the new and exciting online MA program, culminating in blended learning benefits for both.

Blended Learning Activities

The Online Masters in Teaching English to Speakers of Other Languages (TESOL) has made its debut this year. In addition to integrating well with some of the existing subjects currently being offered on campus, the MA TESOL offers a number of exciting features such as:

1. Interactive group participation in an online collaboration platform, through iLearn's new Collaborate tool. This weekly virtual tutorial and discussion forum allows the TESOL students from around the world to connect, share ideas and applications, engage in video conferencing, group work, as well as receive follow up instruction from Bond academics.

2. A thorough and systematic iLearn site which provides resources and support to learners in a host of different formats and media such as video files (mp4), audio files (mp3), lecture slides with audio walk-through, presentation slides in pdf, and related handouts.

3. The regular use of interactive review quizzes and activities

for reflective or immediate feedback learning.

4. Use of recorded on-campus lessons of in-class language instruction from Bond University English Language Institute (BUELI). This allows those studying to become language teachers to look at real in-class situations and links theory to actual practice.

5. A voluntary one week visit to Bond to observe and engage in practice teaching sessions

> "*Avoid technolust. The choice of subject delivery method and supporting technologies should be driven by learning objectives, not the other way around.*"
>
> - Peta Hopkins, Manager, Digital Library Services

and experience the full richness of the personal Bond campus experience.

Reason for Choosing a Blended Learning Approach

The online program was set up to help reach a wider range of students and, given the international nature of TESOL, to allow for learners from all over the world to learn and share together.

Since education is a very practical and hands-on profession, various elements (such as lesson observation and teaching practicum) were addressed through the use of technologies such as observing recorded class sessions and online collaboration. The more

> **"**We're excited about the new MA TESOL program and feel that students will both enjoy and benefit from the engaging and meaningful activities which it includes.**"**
>
> - Dr Beata Webb

traditional face-to-face elements such as attending the voluntary one week practical portion at Bond and the required practice teaching in their home countries, complemented the online portions perfectly.

Benefits and Successes

As a pilot course, the instructors and students are eager to engage in the blended learning voyage and create a rich learning environment. The newly set up and long awaited iLearn site for this program has received great reviews in terms of planning, organisation, thoroughness in learning resources, and high standards of excellence.

Obstacles and Challenges

Deciding how to assess and manage the local teaching practice (to be done where the student lives) was a challenge, as there were a number of factors to consider and accommodate.

Converting the existing material to an online/blended learning format was time consuming and laborious since most of the materials had to be recreated from scratch and the faculty was committed to maintaining a high standard of excellence throughout the subject from the very start. Great attention to even the smallest details ensures that the site, the various learning resources and activities look great and hold the Bond banner high.

Advice to Colleagues

1. Be sure to get help when it's needed. Creating and conducting online activities is a lot of work and sometimes requires an assistant or technical person at the ready.

2. Plan things carefully and strive to ensure high standards of excellence and quality.

3. Be prepared to spend a lot of time. Creating blended learning activities is not a fast and easy task, but if you do it well it is worth the effort. ∎

How to Use Technology to Promote Learning

Successful blended learning strategies use technology to improve active engagement. Simply using technology is not enough. Use these three principles of universal design for learning as a guide for effective technology-enhanced learning:

- Allow for multiple means of representation by using text, voice, images, metaphors, demonstrations and other ways of getting your message across. For example, use podcasts and video demonstrations in your lessons.

- Allow for multiple means of engagement by motivating students through reinforcement, feedback, intellectual stimulation, and other ways of helping students take responsibility for their learning. For example, Professor Jeffrey Brand discovered that some introverted students are more likely to engage when they are given the option to participate online.

- Allow for multiple means of expression by giving students flexibility in demonstrating their learning. For example, define the module's learning objectives through a rubric and allow the students to decide whether they will create a podcast, slideshow, video, website, or other means of demonstrating their understanding.

Source: Kinash, S. (2012). Teaching for diversity: Universal design for learning. *Education Technology Solutions, 43*, 44-46.

Flying to New Heights in Learning

Fast Facts:

- **Faculty** - Health Sciences and Medicine

- **Subject(s)** - Principles in Retrieval Medicine; Retrieval Physiology

- **Level** - Postgraduate

- **Enrolment** - 6 students in the semester 123 pilot

- **Media used** - Blackboard Collaborate; iLearn discussion forums and quizzes

- **Blended activities** - Online learning activities delivered through iLearn are complemented by a compulsory 4-day face-to-face residential component for hands-on immersive learning

- **What's unique** - The program is delivered as a partnership of Bond University and the Royal Flying Doctor Service (RFDS)

SPOTLIGHT ON: ASSISTANT PROFESSOR CHRISTINA WOLFE

Overview

The Faculty of Health Sciences and Medicine has taken a proactive approach to integrating online learning and innovative education technology in its learning and teaching strategies. The Retrieval Medicine program is particularly representative of the faculty's strategic thinking. The program is delivered as a partnership of Bond University and the Royal Flying Doctor Service (RFDS), the world's largest aeromedical provider. It commenced in September 2012, with an initial intake of 6 students participating in the pilot. The program consists of a suite of three postgraduate subjects dedicated to the unique specialty of retrieval medicine.

Given its nature and student cohort a 'standard' delivery was never an option. A blended learning approach enables us to draw together an expert faculty from across Australia to deliver the program. We are not restricted to on-campus teaching and learning. The teaching team consists of specialist and generalist clinicians - doctors, flight nurses and paramedics - with national and international expertise, many of whom work full time in the field, as well as non-medical staff. Faculty can deliver the program from their own environment. Without a blended learning approach we simply could not attract faculty to teach in the program.

Blended Learning Activities

Each subject typically consists of:

1. Online learning activities based around weekly/fortnightly topics and all delivered through the iLearn site, including: a distance tutorial using Bb Collaborate; lecture, readings, topic notes, discussion forums and small group learning.

2. Self-directed learning facilitated through the online learning activities, such as online quizzes, tests or similar items.

3. A compulsory 4-day practical residential component is held per semester. The residentials are conducted in a range of venues, e.g. RFDS bases, Whyte's Island Disaster Simulation Facility, and airports. The residentials enable students to participate in 'real world' scenarios and simulations demonstrating retrieval medicine in action. The focus of the residential component is hands-on immersive learning sessions, where technical and physical aspects of retrieval medicine are covered. This

ranges from aircraft and common retrieval equipment familiarisation through to pre-hospital critical care skills sessions. Students are required to demonstrate practical application of retrieval medicine skills within their scope of professional practice.

Reason for Choosing a Blended Learning Approach

A standard on-campus face-to-face model was not an option for this program. Our target group for the program are clinicians - doctors, nurses and paramedics - who are working in the field and can be located anywhere in Australia or New Zealand (and farther afield once the program becomes international). Students residing anywhere in Australia or New Zealand can undertake the program from their own environment whilst continuing to work. Our students expect relevant and industry-aligned content from both learning and teaching perspectives. They need to be able to work through topics at a pace that suits them and fits in with their clinical roles. To meet our students' learning needs and expecations, the program is part-time, posgraduate and offered in a flexible delivery/blended learning mode.

Benefits and Successes

Although the Retrieval Medicine program commenced only a semester ago, the benefits and successes of flexible delivery are already apparent.

- We have industry professionals teaching and sharing their experiences and expertise whilst 'in the field'.
- Students and educators have the ability to work from anywhere and at any time.
- Students are able to work and contribute to the learning experience at their own pace.
- The program meets the best of both worlds - self-directed online learning plus the benefits of small group learning and hands-on sessions.
- Assessments are tailor-made for the blended learning approach and enhance the feedback loop.

Obstacles and Challenges

As it is with the launching of new programs and projects, there were a few speed bumps along our journey, but as we react, learn and adapt, we continue to refine the process.

- The initial development of content and activities and loading of materials suitable for online learning was very time consuming. As we were building this program from scratch, a longer lead-in time for preparation would have been a great benefit.

- In the first few weeks, as students and staff were getting used to 'the approach' there were a few hiccups, missed activities, omitted content, etc.

- Getting all of the teaching team on board and able to provide resources well in advance took a lot of extra work.

> "*Embrace [blended learning] as it opens up a far larger student target group and adds depth to learning.*"
>
> - Assistant Professor Christina Wolfe

- Lack of an initial face-to-face between students and staff to start/introduce the program meant a slightly slower start, particularly as both groups are in busy clinical jobs. However, given students are highly motivated postgrads, it became seamless. After the residential there was a greater communication, discussion and sharing as 'the group' had formed.

- In Semester 123, Bb Collaborate was not yet available to us as a distance tutorial tool. Once we had Bb Collaborate for Semester 131 there were some initial challenges for staff and students in using the tool, due to lack of IT support available after hours (when distance tutorials are run), and because our participants were the very first users of the software so training was not available until well into the semester.

- An on-going challenge is to develop materials that are designed specifically for the on-line distance tutorial mode. When done well, the teaching and learning is fantastic; if done poorly, student motivation is affected.

Advice to Colleagues

1. Plan ahead. Develop activities, approach, content and all materials well in advance. Load them onto the learning management system (LMS) you will be using and test the approach before going 'live'.

2. Embrace it as it opens up a far larger student target group and adds depth to learning.

3. Have academics and support staff work together in planning phases.

4. Make sure Bb Collaborate (or its equivalent) is continued. Without this tool we wouldn't have a distance tutorial or means of bringing the students together live and online. ∎

The following guidelines are extracted from Keppell, Suddaby and Hard's (2011) *Good practice report: Technology-enhanced learning and teaching:*

1. The active engagement and involvement of senior management is critical to institutional integration and uptake of technology enhanced learning and teaching initiatives.

2. Project sustainability is enhanced when there is engagement with an active (existing) community of practice.

3. Embedding a technology-enhanced learning and teaching initiative into the wider curriculum is likely to lead to a more sustainable change than confining the initiative to within a single course or subject.

4. To ensure continuity and ongoing value from repositories and websites, they must be actively managed and maintained.

5. The development of tools for use within a technology-enhanced context must be accompanied by rigorous evaluation across a range of relevant contexts.

6. Academic development activities need to focus on sustainable, immersive strategies that allow teachers to enhance their own discipline teaching.

7. Academic teachers should be encouraged to model and share learning designs within their own university, partner institutions and symposiums and conferences in higher education.

8. Teachers need to learn the language of the internet, new media and new thought processes, as multi-literacies in the digital age require a new set of skills in order to effectively communicate and interact in the modern world.

Garrison and Vaughan's (2008, pp. 88-100) *Blended learning in higher education: Framework, principles, and guidelines* offers additional guidelines below:

1. Establish a climate that supports open communication. Connect students with each other and with you by collaborating on the expecations of the subject, either face-to-face or online in a chat or discussion forum. Students should be assigned initially to small groups to allow for more interaction and a growing sense of belonging.

2. Consider the subject's content from an inquiry perspective. Activities should be problem-based and question-driven to engage the students in reflective discourse. Focus discussions on finding solutions or resolving case studies.

3. Create opportunities for small group discussion. You may need to kick-start online discussion early in the semester, just as you would in face-to-face environments. One student representative from each small-group can report back to the larger discussion.

4. Face-to-face activities must mesh with online activities. For example, topics may be introduced face-to-face, then continued in the online environment for further discussion and assessment.

5. Group cohesion is necessary for students to engage in discourse and collaborative activities. Facilitate group cohesion in an online environment by creating smaller groups and allowing anonymous contributions to encourage free discussions. Again, one student may report back to the larger discussion.

6. As students gain experience, they should be given the opportunity to moderate a discussion.

7. Manage collaborative relationships to ensure students assume responsibility for their learning and not become distracted by personal relationships.

Sources:

Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. San Francisco, CA: Jossey-Bass.

Keppell, M., Suddaby, G., & Hard, H. (2011). G*ood practice report: Technology-enhanced learning and teaching*. Sydney, NSW: Australian Learning and Teaching Council. Retrieved from the Office for Learning and Teaching website: http://www.olt. gov.au/resource-good-practice-report-technology-enhanced-learning-and-teaching-2011

HOW **BOND** SUPPORTS YOU

"Have academics and support staff work together in planning phases."

- Assistant Professor Christina Wolfe

Academic Support

Using innovative technology solutions and online platforms can enrich your face-to-face teaching, but it is important to remember that blended learning may not be suitable for all activities, and not all education techologies are suitable for every learner, educator or subject. The Bond Office of Learning and Teaching (Bond OLT) assists educators in getting the right mix for a student-centred learning experience. Bond OLT helps our academics with:

- having a sound knowledge of learning and teaching principles, including assessment and its alignment with learning outcomes;

- selecting the tool that is most appropriate for your subject's learning and teaching objectives and needs;

- reviewing and revising your subject's curriculum and design for effective flexible and blended learning practice; and

- one-to-one consultations to gain proficiency in using technologies for supporting learning and teaching.

Library Support

Faculty Librarians are available to assist with development of library resources/content for inclusion within subject sites in iLearn.

- With the agreement of academics, this may include adding links/navigation directly into a subject site, or checking that authenticated links are working correctly.

- Library guides (http://bond.libguides.com) can be created and tailored for individual subjects on request.

- A library guide specifically on blended learning has been developed: http://bond.libguides.com/blended-learning. Other guides on topics to support academic staff can be developed on request.

- Copyright advice on use of resources within iLearn.

Collection development - Faculty librarians work directly with teaching staff to identify resources tailored to learning and teaching needs. The collection includes resources across multiple formats including: online video resources such as, *TV News*, *Kanopy Streaming* and *Art and Architecture in Video;* ebooks and ejournals; audio resources, such as podcasts; and images.

Information Literacy - In collaboration with teaching staff, Faculty Librarians present information skills programs in classes which focus on the discipline-specific learning needs of students. These could also be provided in an online environment. Librarians also develop a range of information skills development materials such as screen casts, guides and online orientations which help students to develop the independent learning skills necessary to succeed in a blended learning environment.

Technical Support

Bond's Information Technology Services (Bond ITS) assists with the 'nuts and bolts' of blended learning. Bond ITS provides technical support to iLearn and its associated platforms, such as Bb Collaborate. The ITS team delivers A/V solutions for blended learning initiatives, maintaining and servicing the hardware, software, licensing, and equipment that is required to ensure accessibility by each student and educator. Work with the ITS team from the beginning to work out the bugs and kinks of your trial run and to ensure a smooth transition to blended learning. ∎

> **"***Student expectations about their learning experiences is a key driver. Ensuring students have the best opportunities to engage with subject content is incumbent on any higher education institution, and a blended model provides flexibility to cater to different learning styles and across different disciplines.***"**
>
> - **Peta Hopkins, Manager, Digital Library Services**

Bond Perspectives

The Office of Learning and Teaching interviewed a number of our Bond colleagues for their perspectives on blended learning. They had a lot to say about what Bond needs, what they need, and what works.

"Bond needs the resources to support the educators in building and implementing a blended strategy. Lecturers should not be expected to be digital content experts. They should be able to form a vision and the university should have the supports to help them achieve that vision. This would require a team of digital content creators, a strong technology infrastructure, and most importantly the ability for a single educator to take a chance on something new without being alone in their venture."
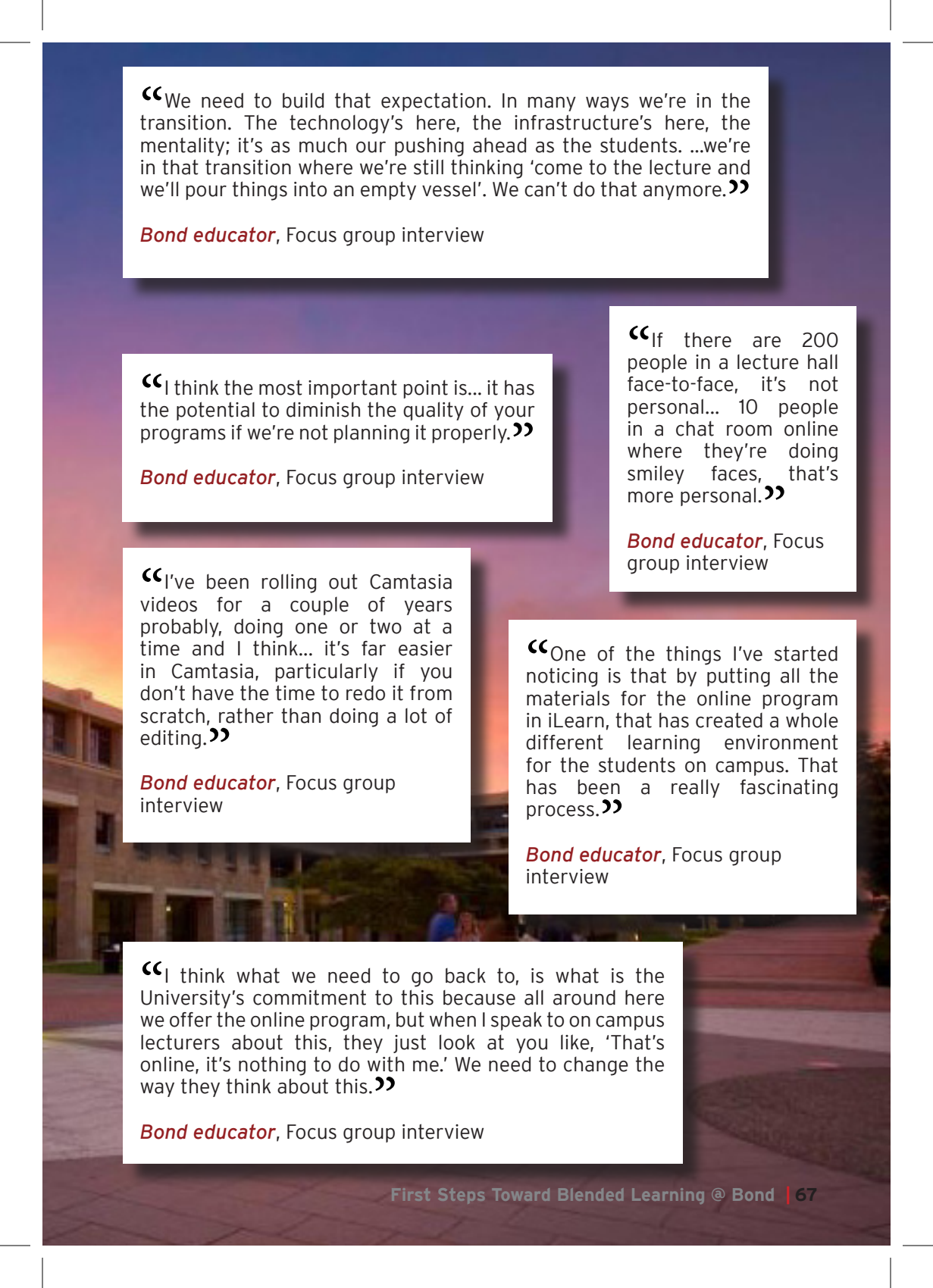
Lauren Hives, eLearning Applications Administrator

"...all these different types of learners. Some might thrive online. Some might want and need the networks, the face-to-face, the flirting with the girls or boys or just hearing, talking and working together. Some might like a little bit of both. That's the key I think, mixing it up."

Bond educator, Focus group interview

"I think the critical component here is capabilities. This is in the form of human and non-human resources that are sustainable. ...There needs to be widescale awareness on the possibilities of blended learning - we need buy-in from our own academics. I also think there needs to be standardised and agreed options available for our academics to consider and integrate into their programs."

Rajan Davio, Director, Information Technology Services

> "We need to build that expectation. In many ways we're in the transition. The technology's here, the infrastructure's here, the mentality; it's as much our pushing ahead as the students. ...we're in that transition where we're still thinking 'come to the lecture and we'll pour things into an empty vessel'. We can't do that anymore."

Bond educator, Focus group interview

> "I think the most important point is... it has the potential to diminish the quality of your programs if we're not planning it properly."

Bond educator, Focus group interview

> "If there are 200 people in a lecture hall face-to-face, it's not personal... 10 people in a chat room online where they're doing smiley faces, that's more personal."

Bond educator, Focus group interview

> "I've been rolling out Camtasia videos for a couple of years probably, doing one or two at a time and I think... it's far easier in Camtasia, particularly if you don't have the time to redo it from scratch, rather than doing a lot of editing."

Bond educator, Focus group interview

> "One of the things I've started noticing is that by putting all the materials for the online program in iLearn, that has created a whole different learning environment for the students on campus. That has been a really fascinating process."

Bond educator, Focus group interview

> "I think what we need to go back to, is what is the University's commitment to this because all around here we offer the online program, but when I speak to on campus lecturers about this, they just look at you like, 'That's online, it's nothing to do with me.' We need to change the way they think about this."

Bond educator, Focus group interview

Teaching with Technology:
A University Student Perspective and Action Process

Matthew McLean And Shelley Kinash

In the contemporary teaching environment, technology plays an essential role. It has catalysed fundamental changes to the student-teacher relationship. By definition, we expect our teachers to be more experienced than their pupils, and to have greater expertise in what they teach than those they teach it to. But with iPad apps for children designed almost from the day they exit the womb, this generation of students has a head start when it comes to technology and, thereby, access to information.

The digital schooling phenomenon exemplifies a broader societal change which sees technology permeate across every inch of day-to-day life. Technology enriches our hospitals and homes. It dominates our industry and community. And now, more than ever, it has entered our learning institutions. Unlike before, classrooms, lecture theatres, libraries and laboratories are technology-focused and digitally-enhanced. All levels of education, schools – primary and secondary, TAFE, universities, and even day care centres, now feature technology in some way, shape or form.

Using university as a case study, we can see how technology marks every step of the educative journey. Students apply and enrol online. Email is the primary means of communication within the university network and most, if not all, lectures are presented through slideshow displays on large digital projectors. Assessments are submitted online by means of Turnitin plagiarism software, and the results of these assignments are subsequently accessed on the web. Academics monitor student progress on a Student One database, and when it finally comes time for students to graduate, they register to do so online. From beginning to end, technology is an inherent feature of university and campus life. The student experience has unequivocally been digitised.

Moore's law, a rule of thumb in the computer industry, suggests that technological capabilities double every two years. One need not look further than the annual release of new-age iPods, iPhones and iPads to see the evolution of technology is staggering. The challenge for educators, and indeed the challenge for humanity in the 21st century, is to stay ahead or, at the very least, keep up.

This year, the Bond University Student Association presented its new Vice-Chancellor and his senior executives with two important papers. The first, presented in February, was the *Teaching with Technology Position* paper. It outlined the student wish list for technology in the university environment. The second, presented in July, was the Academic Audit. This represented the first ever, student-led, root and branch review of education policy and academic practice at Bond University. Unsurprisingly, many of the review's 70 recommendations demonstrate the student preference for technology in their learning experience.

Both papers arose from a year-long push for student-oriented reform at the university. The recommendations forged are the culmination of months of meetings and dialogue within student associations and representations. They represent feedback gathered from two dozen, student focus groups, voice forums and education round tables. Before publication, they were tested in a survey of 209 students. In total, it is estimated some 500 students provided feedback in some way, shape or form on either or both of these papers.

Teaching With Technology

One request relates to opening hours in two of the university's technology hubs. The Main Library, home to the resources that support the learning and research needs of the university community, was perceived as closing too early. The Multimedia Learning Centre, a collaborative-friendly learning environment and host to the latest in technological innovation and enterprise, did as well.

Students outlined the case for change and the Vice-Chancellor agreed. The end of the January semester saw a comprehensive trial of extending the Main Library and Multimedia Learning Centre opening hours. The trial, alone, provided students with more than 100 hours of additional access to the library and, for the first time ever, 24-7 access to the learning centre. Students voted with their feet. Each week, hundreds flocked to the library in particular. The pilot was so successful that the university permanently extended the hours.

Similar success occurred with single authentication. Students and staff daily utilise a variety of applications ranging from access to email and course content, to enrolment, timetabling and campus life. As

a result, students often waste valuable time, entering password after password and, where passwords vary, having them reset.

The call for single authentication, so that just one password is required for all applications, is a reasonable one. The Vice-Chancellor agreed with the student call for a single password authenticating access to all university applications, and has commissioned a move towards it. This kind of mechanism is not simple and is not secured without cost. However, the ball is now rolling and students are satisfied with assurances of commitment.

Finally, students scored again on the issue of online assignment submission and marking. Currently, students dual-submit, first uploading an electronic copy for plagiarism purposes and then handing up a hard copy at the relevant faculty office. The hard copy aspect of this system is redundant. Academic research has consistently concluded that the submission of assignments online reduces the turnaround time involved in the marking process.

Academic Audit

In every faculty at the university, students voted almost 2:1 in favour of universal lecture streaming. Students are firm in their belief that family matters, work commitments and illness are a fact of life. Lecture streaming serves to prevent students from falling behind when, through no fault of their own, they do not attend a lecture. Lecture streaming also functions as an effective study tool leading into exam periods.

Step one is implementing universal lecture streaming. Step two involves making these streams as accessible to students as possible. While the existing lecture capture system allows students to stream an online broadcast, Apple's iTunes U permits the download of lectures for later viewing. Students can then view lecture content on their iPod, iPad, iPhone, desktop, netbook or notebook computer. True to the platform's tagline, students can 'learn anything, anywhere, anytime'. Of all

the recommendations tested for student support, iTunes U had the greatest support. Some 92% of students surveyed responded "yes" for the lecture streams to be made available via iTunes U.

Meanwhile, student administration has been fundamentally digitised. While 21st century students were no doubt the catalyst for this, the ad hoc migration of these systems to online mediums has resulted in a patchwork array of distinctive systems and inconsistent platforms. Two-thirds of students are of the opinion that these disparate student systems should be merged into one. As a result, the Academic Audit recommends an all-in-one student dashboard that incorporates functions currently provided for by four, separate student systems.

The Academic Audit touches upon the breadth and depth of the academic landscape at university. Given this, students could not have been happier with its reception by university management and academic decision makers. Some recommendations are controversial, others take time and cost money, and many go against long-standing practice. Nevertheless, the review has been well received as a blueprint reform and a guide to the education 21st century students want and need.

Learning from the process and the product, it is clear that with the right research and clear consultation, academics appreciate the student voice and vision. In the current climate of the tertiary education sector, institutions must satisfy student demand to continue to survive, thrive and prosper.

It is not surprising that a common theme to all recommendations is a student preference for technology. The 21st century student belongs to the most technologically-capable generation in human history. To keep up with the pace of technological change, academics and administrators must think fast and look forward.

Every day, research and innovation are changing the technological climate. By and large, this is for the better. If we can't keep

up with the change today, we will struggle tomorrow. The everyday technology we use today was unfathomable to most a decade ago. A glimpse into the future may see face-to-face teaching replaced by an entirely-digital classroom. Pen and paper may be a thing of the past. Teaching with technology may not mean a projector but could mean a hologram. Computerised marking by 'intelligent processors' is not out of the question. Accelerated learning, digital teaching and techno-centric degrees are all potentially on the horizon.

Students believe that the scene is set for an authentic education revolution. A national broadband network, the most tech-savvy generation civilization has ever known and academia increasingly not afraid of, but encouraging change, will foster the growth of a new digital age of teaching and learning.

It is a brave new world and we should embrace it with arms wide open. Formal schooling can be cutting-edge. Available technologies are state of the art, and digital fluency can mean a competitive advantage to universities, schools and the nation. Lead the way and get out in front. Contemporary students are calling for teachers and institutions to build on existing, digital foundations and lead the way to teaching and thereby thriving, with technology. ⬛

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Matthew McLean is the Vice-President (Education) of the Bond University Student Association. He studies a Bachelor of Law on a Vice-Chancellor Scholarship at Bond University. He serves on the university's Academic Senate and a number of its standing and sub-committees. Matthew authored the Bond University Student Association's Academic Audit and their Teaching with Technology Position Paper. He works as a Research Assistant at the Office of Quality, Teaching and Learning and the Centre for Law, Governance and Public Policy.

The Consequences Of Posting Learning Online

Shelley Kinash and Matthew McLean

One of the heated debates in university education today is whether or not to provide lectures online. No doubt this conversation exists beyond the halls of academia, across the corridors of our schools. In the school context, the debate is often framed as a question of whether classrooms should be *flipped*, so that students watch content videos online and apply learning (the idea of homework) in class under the supervision of their teachers. Students at all levels are calling for online delivery, whilst educators are concerned about its implications on attendance and learning. This mismatch of perception between students and academics has placed universities worldwide at a crossroads, as senior executives walk the tightrope of student demand and academic pedagogy.

A comprehensive review of literature and data exploring this issue identifies four questions at the heart of this conversation:

1. Does student attendance decrease when online content is made available?
2. Does it matter to achievement whether attendance is online or face-to-face?
3. Is online content better suited to some pedagogical tasks than others?
4. Do some types of online content work better than others?

Does student attendance decrease when online content is made available?

Academics are naturally concerned that if students have access to online content, they will no longer attend in person. To an extent these fears are justified, but the evidence suggests that resulting declines in attendance are unlikely and minimal. One team of researchers analysed end-of-semester surveys of 197 first year medical students in a program whereby at least 95 per cent of lectures were recorded and made available to students. Ninety per cent of respondents reported that the availability of online lectures made no difference to their class attendance. Another analysis of survey responses from 70 dentistry students indicated that 91 per cent reported using online media to review lectures already attended and only 9 per cent as a substitute to attending class.

In addition to these quasi-experimental studies, there is a growing body of noteworthy qualitative evidence. In one instance where researchers interviewed a purposive sample of healthcare students, they found that access to recorded lectures did not influence their attendance decisions. Instead, the determining factors of attendance were whether the lecturer and topics held the students' interest and attention. The answer to the question above is simply that if student attendance decreases at all, it will be only marginal and can be recovered through lecture style and presentation.

Does it matter to achievement whether attendance is online or face-to-face?

The focus of the debate regarding whether or not to provide lectures online in digital formats may be misplaced. Surely as educators, the decisive evidence in this kind of discussion should be framed around learning. On this matter, a wealth of writing and data can be sourced from researchers all over the globe and across disciplines.

In a quasi-experimental study in the context of introductory biology, researchers found no significant difference in student achievement between cohorts of students experiencing lectures entirely face-to-face and entirely online. Another team of researchers tracked the on-campus attendance, grades and student access to streamed lectures of 108 engineering students. Once again, achievement remained unchanged regardless of the lecture's medium. A third research team conducted a quasi-experimental study comparing the examination results of psychology students taught face-to-face and those instructed through podcasts. The results revealed statistically higher achievement of the students in the podcast group. Finally, the learning experience of 211 geology students attending exclusively face-to-face lectures was compared to that of 153 students who also had access to video streams of these lectures. The results indicated that although lecture attendance reduced with access to content online, there were no overall differences in achievement between the two groups. Notably, grades went up alongside frequency of lecture viewing.

The leading UK survey on use of university information technology (IT) asked respondents to advise whether or not usage enhances their learning. Of the respondents, 79 per cent accessed course-specific materials online including lectures and podcasts. From within this group, 74 per cent were of the belief that IT was very useful in enhancing their learning. Similarly, a recent study in Australia found that lecture streaming was perceived to help 67 per cent of students in a significant or moderate way to achieve better results. When the same students were asked if lecture streaming made it easier for them to learn, 80 per cent indicated that it had, while only 7 per cent felt it did not.

Authors writing on the theme of online digital content and student attendance agree that there is no significant difference between student achievement when they view face-to-face or online lectures. In terms of achievement, it would appear attendance does not matter. A point worth pondering, however, is whether removing the necessity of on-campus attendance has an impact on the student experience such as participation in clubs, sports and social opportunities.

Is online content better suited to some pedagogical tasks than others?

Most academics agree that lectures are well-suited to online delivery whilst other learning tasks such as labs and recitations should continue as a face-to-face teaching exercise. A blend of online and on-campus pedagogical tasks also addresses the previous concern of a well-rounded student experience.

Historically, learning through discussion has been recognised as a fundamental part of the learning experience. Many educational theorists agree that sound learning designs through prodigious use of information and communication technology in teaching will support quality learning outcomes. Some leaders in the field of education are writing that online content such as podcasts need not be restricted to didactic pedagogy. These authors discuss the potential for digital content to be transformative, such that reflecting on, designing, creating and distributing podcasts has the potential to change teaching conceptualisations and approaches from didactic lectures to constructivist learning.

Each of the authors whose work is described in the context of pedagogy wrote that learning should be the constant guide of what and when technology can serve as the vehicle through which teaching is facilitated. Of course, some online content is better suited to some pedagogical tasks than others and academics should also have this principle front-of-mind as they decide which content to make available online and which should remain face-to-face.

Do some types of online content work better than others?

This question asks which education technologies or instructional design formats are more effective to promote student learning. Some authors canvassed a number of forms and media through which online content can be delivered.

Including social media, interactive whiteboards and YouTube, academics have an increasing range of digital applications available to them. These researchers also addressed best practices for technology-enhanced teaching and learning, putting forward the notion of hybrid course development incorporating both face-to-face and online lectures using instructional technologies such as the Blackboard Academic Suite, PowerPoint, Adobe Presenter, Respondus and Google Blogger.

A few studies experimentally compared multiple approaches as independent variables to producing digital content. One research team analysed 70 survey responses from dentistry students. One of the questions asked students to indicate their preference between audio-only podcasts, audio synched with PowerPoint slides and video podcasts (vodcasts) made by recording lectures. Of those who indicated using the media, 66 per cent preferred audio-only, 21 per cent preferred video and 13 per cent preferred audio synced with PowerPoint slides.

In general, across the studies, students indicated a preference for mobility and completeness. Some types of online content work better than others. For now, however, findings are mixed and do not lead definitively to format design decisions.

Conclusion

Grave concerns about the effect of lecture streaming on student attendance are largely unsubstantiated by published research. Of higher priority than attendance, fears about student achievement are misplaced. Not only does the evidence suggest that lecture streaming does not have a negative impact on learning, in many instances digital content has been demonstrated to heighten student achievement and outcomes. Some online content is better suited to some pedagogical tasks than others, while some types of online content

work better than others.

The examined research was framed on the basis of an interruption to the status quo. The question of the impact of digital content is situated in the traditional university structure and format of students attending lectures, where they listen to long speeches accompanied by text-based notes and then process and apply the content through tutorials and sometimes labs. Blended learning and digital content is a game-changer and there is a wealth of evidence to suggest that so far as teaching and learning goes, this is a profoundly positive change.

Whereas some authors are amenable to digital content, provided that it is confined only to delivering lectures, others believe that the capacity of online tools, resources and communication should be explored as a disruptive innovation. The question of whether students feel compelled to attend on-campus lectures calls the traditional pedagogy into question. The entry of digital content and communication into the arena of university education is an opportunity to re-examine why students enrol in university and what teaching approaches best support their learning.

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New Generation Of What?

By Shelley Kinash, PhD

At a recent faculty meeting, debate raged over two topics: student use of laptops and video recording of lectures. On one side of the debate, lecturers tell students to shut their laptops and put them away because, in their experience, students using mobile devices are on social networking sites, emailing or playing games rather than attending to the lecture. Opposing academics actively encourage students to bring them to class so they can undertake internet searches, have online debates, access experts on lecture themes and use electronic rather than printed textbooks. These academics argued that as most high schools now have laptop or tablet programs, students would be going pedagogically backward rather than forward in coming to a university where mobile devices are banned.

On the debate about video recording, some academics were adamantly opposed to it, stating that students would stop attending classes if they felt the same content could be accessed online. Others felt that if video recordings could replace face-to-face lectures, then maybe they should, as education comprises more than just the giving and receiving of a lecture. The group that opposed video recording stated that there is more going on in face-to-face teaching than students perceive and they should not be sent the message that attendance is optional.

New Generation Learners

Debate over these issues sits in the wider context of discussion over net- and digital-generation learners. The PC has made a big difference to human experience and children who have never known life without PCs function and think in different ways to those who experienced their introduction. Some believe that this generation is wired differently and that the physical structures of their brains have been impacted. Various labels identify children who grew up after the widespread adoption of the PC, including 'net gen', 'digital natives', 'millennials', 'gen next' and 'echo boomers'. The letters X, Y, Z are also used to differentiate between them. People in Generation X were born between 1965 and 1979. This is said to be the last generation of people who actively experienced life before the widespread adoption of the PC. While many of the new routines, modes of communication and technologies have been adopted by Generation X, technology use does not seem to come to them as naturally as it does to later generations and is a conscious decision rather than a natural eventuality. People in Generation Y were born between 1980 and 1997; Generation Z was born between 1998 and this year. As of 1997, we started to see Generation Y enter university.

The distinctions between the everyday functioning of pre-PC and PC generations, particularly since the introduction of mobile devices, are readily apparent. How people function today is very different from how everyday life was carried out previously. People seldom leave home without a mobile phone. Most mobile phones are smartphones and can be used to search the internet. Phones are used for texting much more than for voice-to-voice contact. Some people are giving up landlines entirely. Most people have laptops or tablets or both. More and more devices have touch screens. Mobile devices are used for text document production. Laptops no longer come without wi-fi (wireless

internet) and tablets come with optional 3G for when no wi-fi networks are available. Internet connection is necessary to enable social networking. Fewer and fewer bound books are checked out of libraries. More and more books and journal articles are available in electronic format for download. Many journals have stopped producing print versions. There is more open sourcing. New information is pushed to people when available, to be accepted or discarded. Multimedia is readily available. People listen to music and watch videos using digital devices. Games have impressive graphics, are interactive, allow creation and design and enable simultaneous networked play.

Children and young adults growing up with these capabilities have different functionality expectations, including in the school and university contexts. They expect to be able to design, create, construct and post publicly. They expect immediate and specific feedback and responses. They are used to being able to manipulate and to work hands-on with actions and reactions. They are seldom disconnected or isolated. When on their computers, chat is usually open. As soon as they get out of class, they start texting. Sitting silently in class is an alien experience. Discussing, comparing and applying experience comes naturally. Reading is usually online, which means that it is multi-directional, linked and associated by meaning and not by pages. If an unknown word or a new concept is introduced, Wikipedia provides a quick and user-friendly answer. An electronic book is considered useless if it cannot be searched, digitally highlighted and bookmarked, hyperlinked and connected to the internet.

Many educational theorists believe that people growing up in this era of networked mobile devices think differently. They believe that the capacity of new technologies to allow enhanced functioning should be celebrated rather than feared. The challenge posed to educators at schools and universities is to design curriculums and pedagogy such that they support rather than stifle intellectual capacity and knowledge generation.

Dissenting Perspectives

There are numerous opposing and challenging voices in this debate. One critique is that PCs and mobile devices are a solution to a problem that did not exist. In other words, technology is being introduced into classrooms because it is there, or because of a 'gee whiz' factor rather than as part of a rigorous, responsive pedagogy. Some authors write about technological determinism, which metaphorically means that the cart is leading the horse rather than the other way around. Some educators argue that the use of technology

in schools and university is accelerated by consumerism and not driven by promising educative practices for learning. Others argue against the stereotyping and homogenisation of applying the broad and sweeping labels of generations. Some feel that 'net-gen' learners are privileged over others, when there is no evidence for a substantive difference between them. Critics argue that we have gotten distracted by language of generations when we need to focus on whether there is any evidence that the use of technology in schools and universities advances learning. Some say that there is no proof that those who grew up surrounded by computers think differently.

Still others argue against 'net-gen' thinking, saying that educators should not be held ransom to the whims of students. Just because students are asking for technology use in school and university, it does not mean that they will use it wisely or that it will add value to education. Many teachers and lecturers see digital devices as time wasters. They argue that children are spending too much time in front of screens. They are missing out on fresh air, exercise, sport, face-to-face socialisation, reading whole books from cover to cover and writing using pen and paper. They worry that schools and universities are spending money on hardware, software, technology maintenance and training when they could be spending it on reducing class sizes, purchasing lab equipment and taking field trips.

Technology And Pedagogy

Part of the reason why there is little empirical evidence that the use of technology in school and university has a positive impact on learning is that technology is not a magic bullet. Simply putting it in place will not work. The academics in the faculty meeting described in the introduction to this article could prove their points that laptops distract students from learning and that recorded lectures stop students from attending classes. Their points could be proven because they have not changed their teaching. Infused technologies only work when part of a well-informed pedagogy and curriculum. Technology works when considered in the context of learning outcomes and pedagogical process. For example, one of the learning outcomes of a biology class is student modelling the process of photosynthesis; computer animation is appropriate for this task. One sociology learning outcome is to compare and contrast cultural views on the role of the child in the family; in this case the internet is a vital source of information and online discussion forums help students articulate their diverse experiences and challenge one another's thinking. In short, technology and pedagogy go hand-in-hand.

Accepting Reality

Perhaps the debate over whether the 'net-gen' learner concept is valid or valuable will not be resolved. Perhaps it should not be, in that the tensions direct attention to complexities that must be considered carefully. The debate is reminiscent of that on distance education and inclusive education. Whether people argue for or against these, the fact remains that some students do not attend physically the universities in which they are enrolled. The reality is that many children with disabling conditions attend regular neighbourhood rather than special schools. Technology is here. 'Here' means in the home, in school and in university. There will always be lecturers who argue that they do not want laptops brought into their classrooms, but mobile devices will be harder and harder to exclude. Academics will argue that they do not want their lectures captured and posted online, but university executives will insist it be so in order that their universities are not left behind. When educators accept technology as part of the teaching, the challenge will be to teach well with that technology, unleashing the potential to inspire and engage learners and learning. ⊕⊕

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ACKNOWLEDGMENTS AND FUTURE DIRECTIONS

This booklet has presented descriptions of what academics at Bond are doing to ensure that their students are awarded the benefit of technology-enabled and technology-enhanced learning. We wish to fully acknowledge and commend all contributors to this booklet for their descriptions and stories of first steps in blended learning. Our hope is that these descriptions inspire ideas for innovation and creativity in other disciplines, in more classrooms and through additional online tools and systems. It is through our inspired staff that Bond University continues to lead the way in higher education, setting the learning and teaching benchmark high. A rigorous Delphi analysis identified three technology trends in higher education (Johnson et al., 2013, p. 2) and it is affirming to realise that the initiatives described in this booklet are already putting these outlooks into action.

- People expect to be able to work, learn, and study whenever and wherever they want.

- Education paradigms are shifting to include online learning, hybrid learning, and collaborative models.

- Openness – concepts like open content, open data, and open resources, along with notions of transparency and easy access to data and information – is becoming a value.

On behalf of all staff (and students) at Bond University, thank you to the contributors to this booklet for sharing. We are already collecting descriptions, stories and ideas for the next edition, so please consider being a contributor. One-to-one supports are also available to you to put your technology-enhanced learning ideas into practice.

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