Introduction

Federation University Australia is developing an institution-wide eLearning strategy, incorporating higher education and TAFE. Following consultation with key staff and relevant literature, a discussion paper was prepared and circulated widely in early 2013. Feedback on that discussion paper was sought and received from across the institution and has been incorporated into this document. In May 2013, the Academic Board of the university endorsed a set of principles and priorities that together comprise the University’s vision for eLearning. These are outlined below.

It is recognised and acknowledged that many staff at Federation University Australia are using eLearning for administrative and distribution purposes in learning and teaching, and a small number are using technologies in transforming ways. To meet the expectations of today’s students, keep pace with the changing sector and facilitate the highest quality experience possible for all of our students, the University must move further toward the uptake and use of technologies that allow students to deeply engage with and learn from material, staff and each other online and in blended formats. The eLearning vision incorporates aspiring to increase the use of technologies that best facilitate the highest quality of student learning and the student experience.

The changing context

Federation University Australia sits within a wider context. In that wider context, the digital revolution is transforming almost every aspect of human existence. There have been significant, transformative and permanent changes in the nature of the business, delivery and presence of bookshops, newspapers, recorded music, movies, travel agents and department stores, to name a few. Universities are not exempt from such revolution. Universities teach, research, credential, engage and socialise and there are alternative ways of doing these things that don’t necessarily involve universities.1 Like universities worldwide, Federation University Australia must now rethink not only delivery methods but also the fundamental nature of teaching and learning and what the role of a university really is in the emerging and fast moving digital context. It is time to change.

Changing student characteristics and expectations

International research shows that students spend much of their free time on the Internet in myriad forms of learning and the exchange of information, including via social networking\textsuperscript{2}. Modern students expect to use the Internet and other digital tools to undertake their tertiary study. Students are often (although not always) very familiar and comfortable with a range of technologies. Tertiary institutions can leverage the online skills learners have already developed outside of study through embracing online and blended learning models alongside traditional models in the delivery of education.

Advantages and benefits of online and blended approaches

In addition to the access and convenience that online study options offer students, there are particular advantages and potential benefits inherent in using educational technologies or eLearning in tertiary education. When carefully designed, planned and utilised, eLearning can enhance the student experience in ways not otherwise possible.

Media-rich collaboration tools, mobile and tablet computing and social networking technologies as part of tertiary study can provide opportunities that may not be available in traditional face-to-face teaching and learning formats. These include opportunities for students to chose how and when to learn and to personalise their learning. Through online and blended study, students can work at their own, individual pace, choose which additional resources provided to make use of and review material as many times as necessary before moving on to subsequent or more complex material and concepts. Advantages of online study also include opportunities for collaboration with fellow students both formally and informally, with or without staff input. A significant body of research demonstrates clearly the links between increased engagement with fellow students and retention. Despite unfounded and widely held views to the contrary, deep and authentic engagement and collaborative outcomes can occur online – one only has to consider the role of social media in the Arab Spring as one recent high profile example to see evidence of this.

Innovative assessment techniques in online environments can also provide opportunities for students to not only demonstrate what they have learned, but also to deepen and consolidate their learning through undertaking the assessment tasks. These sorts of experiences can provide much richer and longer lasting learning than summative examinations at the end of a study period.

The use of education technologies can also provide opportunities for new and enhanced partnerships and institutional alliances, an area in which Federation University Australia already excels.

The changing role of educators

In the context of changing student characteristics and expectations, the role of the tertiary educator is also changing significantly. Indeed, the availability of open and free content and the advent of Massive Open Online Courses (MOOCs) with their reliance on open source materials and on peer learning and assessment, has led to widespread challenging of the assumptions about where expertise lies in tertiary teaching and learning. There is now less emphasis on the notion of the educator as the ‘sage on the stage’ and more interest in the idea of him/her as the ‘guide on the side’. The notion of academics as the only holders and distributors of knowledge has been significantly challenged with recent digital developments.

Students are increasingly using ‘always-connected’ devices to surf the web, download apps, read, and interact with others. As well as focusing on the content of their disciplines and/or professional areas, tertiary educators must now also: embrace personalised and collaborative learning alongside didactic methods of teaching; connect students to the most appropriate forums and tools for their learning objectives; and educate learners on how to assess the credibility of sources and to aggregate appropriate content. Tertiary educators also now have a critical role to play in the development of their students’ ‘digital literacy’ in the higher education context. Students interviewed for the development of this paper strongly agreed with a comment from one student that Federation University Australia needed “a change in staff attitudes towards technology”.

A tertiary educator no longer has a single meaning, if it ever did. The academic role is being unbundled in tertiary institutions across the world. Specialists of various kinds in the teaching space have emerged and new specialists are continually emerging. Traditional so-called ‘content experts’ now work collaboratively with learning and/or educational designers, eLearning specialists, curriculum consultants, language and academic skills experts, library staff, information technology staff, space designers and others to create and deliver curriculum and learning environments and experiences. It may be timely to rethink the teacher’s role at Federation University Australia, alongside reward and recognition mechanisms for teaching.

The eLearning strategy at Federation University Australia will be built around sound pedagogical principles. The strategy will also be underpinned by a set of priorities. Seven principles and ten priorities are outlined below.

3 Ibid
Partnerships

Federation University Australia has been delivering its programs to students through partners for over a decade. The 2013 Federation University Australia Charter specifies that the University "actively participates in partnerships to promote learning, teaching, research and commercial opportunities". Partner delivery is a defining characteristic of the University.

Around ninety percent of our international students study their programs at partner institutes, located throughout Australia and overseas. Partner delivery programs allow the University to be more accessible to students, enable us to be engaged throughout Asia in transnational delivery, embody internationalisation in practice and provide revenue for investment back into the University providing better resources to all students.

In addition to partnerships involving international students, we also have partnerships that encompass domestic students. For example, our Dual Sector Partnership Project is a partnership between Federation University Australia and six TAFE institutes in regional Victoria. This partnership enables us to deliver degree programs in regional areas, targeting students who might otherwise not consider higher education. Not only does the partnership provide revenue for the university, it also enables us to make a positive contribution to regional development in Victoria.

Partner delivery is inherently more complicated than standard face-to-face delivery. A single course within a program may be delivered at a dozen partners at the same time that it is being delivered at Mt Helen, for example. Students in partner institutes are instructed by local lecturing staff who are usually not Federation University Australia staff members. The curriculum and assessment is standardised over the various teaching sites and the delivery is continuously monitored and moderated by pre-allocated Federation University Australia academics but there is currently no real interaction between the various cohorts of students.

Partnership delivery creates a community of academics with common interests and teaching responsibilities. The current approach to partnership delivery uses the main campus as a baseline and effectively establishes a number of 'silos' where we seek to emulate the main campus experience. A more sophisticated use of eLearning and technology and a different approach to pedagogy might enable us to effectively combine the student cohorts in meaningful ways, allowing them to interact and collaborate. eLearning might also open up possibilities of enhanced communication between the various partner lecturers and the Federation University Australia moderator for each course, creating a more vibrant community of knowledge, which could benefit all partners through better course design and enhanced collaborative research opportunities.
Principles

eLearning at Federation University Australia is underpinned by the following principles: a student-centred approach; interactive learning; rich, engaging media; supported engagement; personalised learning; accessibility; and authenticity. Each is outlined in turn below.

1. A learner-centred approach

Federation University Australia inspires its students to succeed. Its approach to eLearning must capture this aspect of the University’s Charter. Learner-centred approaches to eLearning explicitly focus on the learning needs of the student and allow students choices in their learning where possible. A student-centred approach necessitates a move away from the institution or staff making teaching and learning decisions based primarily on what has been historically constructed. This is not to suggest that the administrative processes associated with learning and teaching or the needs of the teacher are not important, or that we can or should ignore the requirements of professional or regulatory bodies. Rather, it is that the students’ learning needs must have primary priority in our thinking and decision-making. It also means that course and program design and teaching and learning arrangements are created to enable the highest quality of learning possible for as wide a range of students as possible, not just those that fit the traditional notion of a student.

A learner-centred approach means providing options of learning modes, media and/or channels from which students can choose to best suit their circumstances and preferences. There is no perfect blend – there are endless, successful combinations. This is eLearning rather than eTeaching. To re-position Federation University Australia in the digital age, a refocusing of thinking is necessary: from teacher to student, from content to student experience and, where such a focus exists, from technologies to pedagogies.

The learning objectives and intended outcomes, and not the technology available or the current skills of teaching staff, should drive the eLearning adopted by the institution. Just as program and course design and delivery face-to-face is undertaken with students’ learning in the forefront of staff thinking, so too eLearning should have the same primary driver.


2. Interactive learning

It is now widely understood that didactic teaching that focuses on information transmission from staff to students does not lead to high quality student learning outcomes. Interactivity between staff and students around concepts and material under study is not only the basis of high quality learning, it is also more enjoyable for both staff and students. Opportunities for students to test their understanding, ask and answer questions, workshop ideas and think more deeply about concepts are the foundations of critical, deep and lasting learning. Online learning provides the resources and tools to enable interactivity in ways often not possible in traditional approaches.

Collaborative or social learning through engaging with others is a critical part of interactive learning. Collaborative learning is recognised as pivotal to student engagement, which in turn is related to high quality student learning and to retention. Collaborative and peer learning assume added importance in online learning when students are physically separated, and can often feel isolated, from their fellow students. As well as mirroring workplace interaction, when students are engaged in meaningful ways on joint tasks with other students, peer learning offers them a sense of belonging to and connection with a group. With online options, students can still have the benefits of collaborative learning and group work, even when they are engaging at ‘asynchronous’ times.

3. Rich, engaging media

The media used within an eLearning approach must be appropriate to the mode. There is considerable risk to quality if teaching that is normally delivered face-to-face is simply uploaded and presented in a static format online. eLearning offers the opportunity to use combinations of audio recordings, video recordings, web-based resources, graphics and animation and online communications forums, among other tools and the benefits of these to engage and motivate student learning should be exploited. Diversity in the manner in which information is presented maximises the opportunity for students to engage in ways appropriate to their learning styles and preferences. So too, the benefits of the accessibility of free digital resources should be exploited as part of the University's eLearning strategy.

4. Supported engagement

Support in online learning, targeted to the particular needs of students is critical to student success. Such support can be offered in a number of ways. It can and should be built into the design of courses. Specifically, learning activities and formative and summative assessment tasks within courses can include skill building and opportunities for student development. Quizzes and short tests with rapid feedback and self-paced supplementary material can assist students to self-assess and take responsibility for their learning. Support can also be built into courses through carefully designed peer activities where students can draw on each other’s knowledge and skills to build their own. These sorts of activities have the added benefit of creating a learning community for students, from which they can continue to benefit once the activity is complete. Finally, support can also be offered by student services, library staff and/or Federation College staff working closely with academic staff to integrate discipline-specific skills and capability development into the courses at the requisite times and in the most appropriate formats.
5. Personalised learning

Personalised learning refers to the aspect of eLearning that enables students to work in ways that suit them personally, rather than having to work in a one-size-fits-all dictated by their teachers. In traditional modes of teaching and learning, every student must work through the syllabus in the same order and at the same pace. This is necessary because of the ratio of teacher to students and the limitations inherent in having to meet face-to-face at specific times in specific locations to interact. In an eLearning format, as mentioned earlier, students can work at their own pace and in the order of material they prefer, to some extent, monitoring their own learning and following up with additional material and further study where necessary before moving onto subsequent topics and concepts. Where classes are recorded, previous topics and concepts can also be reviewed, numerous times if necessary. Technologies can be employed to connect students to each other, to teaching staff and/or to learning support staff from whom assistance can be sought at the times it is needed. In other words, the learning experience can be personalised to suit the individual learner.

6. Accessibility

The principle of accessibility has two components. The first is in terms of access per se. Federation University Australia is committed to bringing tertiary education to the region. eLearning provides opportunity for access to higher education not otherwise available to some rural, regional and remote students, as well as to those who may live centrally but have other commitments besides study. Tertiary education is not available to some students other than through eLearning.

The second component of this principle is usability. Once enrolled, accessibility for all Federation University Australia students is a fundamental component of a successful approach to eLearning. Initial training and support to students is critical to ensuring all students can participate in online formats and use online tools effectively. Courses must be appropriately structured to scaffold and guide student progression through and to enable student success. Universal design principles provide a helpful framework for designing courses and programs that proactively consider accessibility for all students of all abilities. In addition, all components of the program must be web compliant.

7. Authenticity

Federation University Australia prides itself on its graduate outcomes and in particular, the employability of its graduates, with 80.4 percent of our graduates in full-time employment, the highest of any Victorian university. Situated or ‘authentic’ learning is about learning in ways, in contexts, through methods and about topics that are ‘real-world’, that is, that prepare students for life and work beyond graduation. Educational technologies enable such learning, again in ways that may not be possible through didactic and other traditional teaching approaches. The design of online learning environments with authentic contexts, the inclusion of complex authentic tasks, access to expert (teacher and other) performance and modeling, the provision of coaching and scaffolding, the opportunity to collaboratively construct knowledge and relevant assessments (Herrington, 2006) will enable a breadth and depth of student learning simply not otherwise possible for students outside eLearning.

Australian government data published on the MyUniversity website
Priorities

In addition to the pedagogical principles outlined above, Federation University Australia has a number of priorities to underpin the eLearning strategy. These are: a range and balance of learning experiences for students; teaching staff capability development; teaching staff support; student training and support; an appropriate internal structure; infrastructure; complementing partners; leadership, governance and quality assurance; economic feasibility; and implementation. Each priority is outlined briefly below.

1. A range and balance of learning experiences for students

All learning and teaching experiences for students at the Federation University Australia in face-to-face, blended and online formats need to be perceived as valuable by staff and students. Current worldwide trends suggest a move away from the dominance of large, face-to-face classes where students are passive recipients of information and toward a range and balance of learning experiences that will supplement lectures and large didactic tutorials, where they exist. Through such a range of experiences, students can personalise and balance their learning by choosing formats that suit them best and that best enable them to engage meaningfully with each other and staff, whatever their characteristics and circumstances.

2. Teaching staff capability development

Shifts in learning and teaching approaches require reimagining the ways in which educational technologies are used in learning, teaching and assessment. This in turn requires the enhancement of the base of skills, experience, expertise and confidence among teaching (and relevant support) staff and learning and teaching leaders in eLearning across the institution. This affords Federation University Australia the opportunity to focus on teaching teams where a variety of skills are applied to course development, and evaluation. Staff professional development opportunities will be key to enhancement and digital literacy will need to be a priority in this development work. These will provide opportunities to see and imagine different ways of working, demystify eLearning, build staff confidence and skills to work in a digital context, reduce staff anxiety about the changes required and empower staff to do the new work required in the digital age.

3. Teaching staff support

In addition to opportunities to learn how to use technologies in their teaching in pedagogically sound ways, staff also need technical, administrative and other ongoing support to ensure that issues and challenges staff face in eLearning are resolved quickly and effectively. In addition to a program of scheduled professional development activities, just-in-time and just-for-me support for staff is critical to ensuring a successful and continuing move into eLearning and the continuity of high quality learning experiences for students. This may require an increase in capability for staff who are providing such support.
4. **Student training and support**

While many students will bring significant familiarity with a range of media to their studies at the University, many will require support to effectively undertake their study using educational technologies. Some will not be familiar with the particular technologies employed for learning at the University and/or with how to use these for learning, rather than for purely social purposes. Many Federation University Australia students are mature age and ‘second chancers’. Some of these students will not have had opportunities to become familiar with a wide range of technologies. Training in how to access and use electronic databases for research and scholarship such as that currently provided by the library, will also continue to be important.

5. **An appropriate internal structure**

The need for staff development, technical and related support for staff and student training and support around eLearning raises questions about how to structure development and support services to best facilitate what is required. There is no magic bullet in terms of structure and many universities spend considerable time and effort arranging and rearranging teaching and learning and ‘e’ support services. Some universities are now considering outsourcing aspects of professional development around eLearning, particularly as they try to make step changes in this area. Whatever the arrangements, the principles of coherence, coordination, elegance, effectiveness, flexibility, fit-for-purpose, usability and accountability should be applied to determining the most appropriate structure for the University at its current stage of development in eLearning. A reimagining of the development, support and service that underpins eLearning is necessary.

Above all else, the internal structure should enable: the implementation of the agreed strategy across the institution; ongoing liaison and cooperation with Schools; the provision of just-in-time and just-for-me training, development, professional learning and support for staff; the provision of showcasing and sharing of expert and novice experiences in eLearning within and from outside the University; appropriate training and support for students; and high level research and scholarship to underpin evidence-based decision-making. Thought should also be given to the committee and working group structure that surrounds pedagogical and technological decision-making to ensure that governance arrangements, leadership and implementation are optimal.

6. **Infrastructure**

The University will need a comprehensive, usable and robust infrastructure to support its eLearning activities. Physical and virtual learning environments, contexts and facilities must be places where learners and teachers can access and use a range of contemporary technological and other resources. An appropriate and consultative process for determining which resources are deployed for which purposes will need to be developed and implemented.

Some specific, fundamental and basic issues that must be addressed to be able to develop, maintain and service a student focused eLearning platform capable of providing equivalent experiences to our local and transnational students are:
- The establishment of a set of Federation University Australia standards for the production of eLearning material;
- Having appropriate video and audio capture, production and broadcast facilities to enable and facilitate production of materials for effective global learning;
- Ensuring adequate bandwidth to appropriately manage video and audio on demand and fast upload and download speeds and associated capacity to enable service of an international marketplace and high levels of demand at any one time;
- The availability of encoding and infrastructure ability to enable production and management of various forms of audio and video on demand inclusive of various formats for a global market;
- The ability of the delivery of the material to a variety of student owned technology platforms;
- A service desk (physical/virtual) that is available to service the needs of a global market place inside and outside Australian Eastern Standard Time business hours;
- The capacity to support new and emerging technologies to satisfy a range of possible delivery formats and platforms;
- Expertise in assisting staff and departments to develop, manage and maintain eLearning material and delivery that service a variety of end user formats including android, iPhone, iPad and that are in formats that can be accessed and used internationally.
- Three immediate considerations are the need for a content management system; increased storage capacity on the LMS; and a central database supplied by the University to host a backend system to enable automatic assignment of data to Moodle. The latter would significantly reduce the expensive administrative overhead in areas of the university that are deeply involved in eLearning such as the School of Business and avoid the creation of administrative overhead in areas that now begin to move into eLearning.

The underlying ICT infrastructure will need to ensure that students have easy and efficient access to the eLearning technologies. These technologies need to be scalable, feature rich and highly available to enable choices around participation. The technology should also allow for the differing modes of network connectivity that will be available to the students. How we provide just-in-time support to students needs careful consideration as the ‘9-5’ support model will not be sufficient to ensure the support needed is available.

Students must be able to seamlessly transition through all components of an eLearning system, otherwise their learning experience can be significantly diminished. Seamless integration of all systems that the student may encounter during their academic journey will be necessary and the selected technology/ies must support the eLearning pedagogy. Technologies that should be considered in the initial eLearning system are learning management, content management, ePortfolios, virtual classrooms and collaboration. These are in addition to the wifi students have made clear is an urgent priority for them.

One shift over the last decade has been the move to a shared model of learning technology provision. Where once the provision of technology for the university’s teaching and learning and the management and administration of these activities fell within the domain of the university, institutions are now exploring alternative models for information technology sourcing. This has resulted in a greater proportion of service provision being externally hosted, with an underlying business model of flexibly purchasing information technology capacity as it is required, and funding this from operational rather than capital budget allocations.8 There is room for considerable investment in infrastructure at the University and such investment will be necessary to underpin a successful eLearning strategy.

7. Complementing partners

The adoption of eLearning at the University needs to take into account the unique nature of our partnership delivery model. Partner staff will require various forms of access to whatever systems are developed and employed and access to control and account creation systems needs to be carefully considered in the approach adopted. The current practice of appointing partner staff as Fed Uni Associates was created in circumstances different from those emerging through recent digital developments and this practice needs to be reconsidered in light of changing usage patterns and other developments.

eLearning systems will need to be tested in a partnership delivery context, particularly with our transnational partners, to ensure that all stakeholders are able to access and effectively use whatever technologies we decide to adopt.

8. Leadership, governance and quality assurance

Shifts such as those outlined in this paper require strong and committed leadership. Issues such as workload management, tensions between competing priorities for staff, resourcing and change management will emerge. Appropriate leadership is necessary at the senior levels but given the scope of the changes needed to enable eLearning across such a diverse and disbursed institution, effective distributed leadership will be critical. Such leadership will need to be underpinned by a strong, clear policy suite relevant to the changing context and that is cognisant of regulatory and other requirements. Finally, quality assurance will need to be carefully managed to mitigate risk and to ensure high quality outcomes for student learning.

One overarching challenge the University must consider is the scale and breadth of emerging new technologies and the need to continually assess the potential of these to assist the University to meet its goals and objectives. The University must think strategically about which technologies should be adopted and clearly communicate how these technologies and approaches benefit learning and teaching and the quality of the student experience. Matters of effectiveness, efficiency, equity, sustainability and cost will need to be considered and a process for such consideration will need to be developed.

9. Economic feasibility

Federation University Australia is a relatively small organisation. As such, there are financial constraints and considerations that should be acknowledged from the outset in determining the University’s approach to eLearning. The approach taken must be feasible economically and must be sustainable beyond an initial period when there may be extra resources made available to commence a transformation process.
10. Implementation
An eLearning strategy that is perfect in vision but not implemented across the organisation will not be valuable to the University. A balance will need to be struck between the ideal set of outcomes on one hand and on the other, what is pragmatic and realistic given the resourcing, stage of development and culture of the University currently. That said, implementation must be a priority.

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*Kennedy et al. 2011, p. 690*
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