

Quality management of online learning environments:
**An evidence-based approach to
implementing the 6EOLE Quality
Management Framework**

*A resource produced by the project **Building distributed leadership in designing and implementing a quality management framework for online learning environments***

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List of acronyms used

ACODE	Australasian Council on Open, Distance and E-learning
ADTL	Associate Dean Teaching and Learning
ALTC	Australian Learning and Teaching Council Ltd
ASCILITE	Australian Society for Computers in Learning in Tertiary Education
AUSSE	Australasian Survey of Student Engagement
CQI	Continuous quality improvement
DVC(A)	Deputy Vice-Chancellor (Academic)
eMM	Marshall's e-Learning Maturity Model
FGD	Focus group discussion
ICT	Information and communication technology
IT	Information technology
LMS	Learning management system
MOOCs	Massive open online courses
NESB	Non-English speaking background
OLE(s)	Online learning environment(s)
OLT	Australian Government Office for Learning and Teaching
OUA	Open Universities Australia
PC	Personal computer
PD	Professional development
PV	Pro Vice-Chancellor
QA	Quality assurance
ROI	Return on investment
SLA	Service level agreement
TEQSA	Tertiary Education Quality and Standards Agency
VC	Vice Chancellor
VET	Vocational education and training
VP	Vice President

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Introduction

Australian higher education is undergoing profound change, in part driven by the importance of information and communication technologies (ICT). Leading the quality management of online learning environments (OLEs) features highly on institutions' strategic agendas. Technologies constituting these environments are ever changing, and the imperative to use technologies cost effectively for blended and distance education is intense, as is national and global competition in the e-Learning marketplace. High quality leadership and management have never been more important. However, online learning environments are highly complex in design and their many uses. Many people, at many different levels and in many different domains, are actively involved in the selection, deployment and use of the underlying technologies. No one leader or manager in a contemporary university could ever hope to have his or her head around all the relevant matters. Responsibility for all the varied aspects is dispersed across the institution up, down and across various formal leadership hierarchies and domains. Leaders count, but good collective leadership counts more in the quality management of OLEs. What needs to be well led, and how this complex task can be conceived and actioned, is the focus of this project.

The project has developed the Six Elements of Online Learning Environment (6EOLE) Quality Management Framework to help with the task of leading and managing effectively an institution's online learning environment. The '6' and 'E' in the 6EOLE Quality Management Framework stand for the **six elements** presented, their various alignments and the key dimensions and characteristics of distributed leadership which have been foregrounded. Capacity building for distributed leadership is, therefore, centre stage in these endeavours: 'Capacity building involves the use of strategies that increase the collective effectiveness of all levels of the system in developing and mobilizing knowledge, resources and motivation, all of which are needed to raise the bar and close the gap of student learning across the system' (Fullan, Hill & Crevola, 2006, p. 88).

The purpose of this guide is two-fold:

1. To help managers better conceptualise what needs to be managed well with OLEs to assure their quality (QA) and continuous quality improvement (CQI). This task takes place in relatively stable organisational environments where most elements are in place, being managed quite effectively, and where associated leadership structures are reasonably functioning.
2. To help leaders better conceptualise what needs to be led and how distributed leadership capacity building might be developed, in times of major flux and instability where institutions are undergoing major renewal and transformation.

In undertaking the project, the team used a number of evidence gathering methods to ascertain various leadership views on the key dimensions, relationships and issues relating to the quality management of OLEs. The objective has been to develop a quality management framework and guidelines for leaders and managers to use throughout the organisation. The feedback on the research side of the project has been that the resources and activities used in collecting this evidence also represented valuable professional learning and development opportunities for those involved, an intention of the research design. Consequently, we have translated our research methods into an integrated and coherent set of perspectives,

activities and resources that can be drawn upon flexibly in considering a multitude of issues relating to OLE quality management. The flexibility enabled through the approach is consistent with our view that the leadership and management of OLEs are contingent on specific organisational factors and distribution of such capabilities in increasingly super-networked educational environments. Therefore, this guide cannot provide definitive answers. It can, however, support informed thinking and collaborative action suited to particular organisational contexts. As Mintzberg (2004) observes:

It would be nice if we could carry reality around in our heads and use it to make decisions. Unfortunately, no head is that big. So we carry around theories, or models, instead; conceptual frameworks that simplify reality to help us understand it. (p. 249)

What managers need is descriptive insight to help them choose or develop prescriptions for their own particular needs. The fact is that better description in the mind of the intelligent practitioner is the most powerful prescriptive tool we have, for no manager can be better than the conceptual frameworks he or she uses. (p. 252)

This guide is structured around four key aspects of undertaking the quality management of OLEs:

- Framing the quality management of OLEs in Australian higher education through distributed leadership
- Actioning the elements of the Quality Management Framework
- Developing distributed leadership to enhance the quality management of OLEs
- Using the Framework in conjunction with various benchmarking standards and models, and in dealing with special issues.

These aspects are, in turn, supported by the specific questions asked and activities undertaken, and the findings that emerged through the project's data collection methods. We wish to emphasise that the guide was derived from the project's processes and its evidence-based findings.

Findings and recommendations

The project presents the following findings and recommendations to enhance the building of distributed leadership capacity in advancing the quality management of OLEs in Australian higher education:

1. Senior leaders should be clear about their OLE strategy and share underpinning assumptions and expectations through various leadership avenues throughout the institution.

Clarity of OLE strategy is now imperative. This is the responsibility of top-level leadership. Such strategy is shaped by business, financial and marketing concerns. Market share and reputation are critical senior leadership interests. External environmental factors and trends need strategic intelligence. These along with educational aspirations must be developed and shared throughout the organisation as the basis for advancing OLEs and the distributed leadership capacity required to realise strategic intent. All other factors in the Framework are shaped and aligned best when OLE strategy is clearly determined and communicated by senior leadership. Some exemplary communication strategies are highlighted in the guidelines documents.

2. Senior leaders should be clear about how their OLE strategy relates to their overall teaching and learning direction and as related to the institution's continuous quality improvement processes.

OLE strategy, whether standalone or integrated within a broader and more encompassing teaching and learning strategy, must be identifiable as a strategic domain of commitment, and be operationalised within organisational continuous quality improvement processes.

3. Senior leaders should drive the development of high performing distributed leadership capacity to advance the quality of OLEs.

Distributed leadership capacity can only be built effectively through a whole-of-institution approach well supported by those in the most senior formal leadership positions. The processes of organisational learning are becoming more important given the ongoing developments in information and communication technologies, including social media and cloud computing, and the dispersed nature of the impact of such developments in various disciplinary settings and institutional locations of learning. Distributed leadership is consistent with, and an important enabler of, organisational learning. Scattered, disjointed and disconnected efforts of those in various formal and informal leadership roles, at various levels of the organisation, will not advance the quality management of OLEs. All leaders must be able to locate their roles and contributions within an organisational frame of reference, as tied back to their OLE strategy.

4. Well-aligned and high performing distributed leadership must be extended into the effective leadership of external partnerships to add value to OLEs.

Building high performing distributed leadership capacity requires effective leadership of external partnerships to bring new value to OLEs. Such partnerships are the strategic responsibility of top management. Distributed leadership cannot operate in a closed internal environment, but must be open to connect with the leadership of valued external partnerships. Such partnering is now essential in the highly competitive and globalised world of OLEs.

5. The 12 approaches and strategies identified through the project should be used by senior leaders to assist in building distributed leadership capacity in a coherent and well-aligned way to advance the quality of OLEs.

Developing well-aligned and effective distributed leadership capacity demands the implementation of multiple approaches and strategies at all levels and in all domains of the organisation's operations. These approaches and strategies must be framed by those in formal leadership positions. The project identified 12 such actions that can be implemented to achieve strong distributed leadership capacity. Single actions alone are unlikely to help. A suite of coordinated approaches and strategies are required under the umbrella of a clearly articulated OLE strategy.

6. The relationships between strategy, governance and evaluation need greater attention and much stronger alignment from organisational leaders to advance the quality management of OLEs.

Project data collection revealed significant gaps in understanding from participants on the relationships amongst OLE strategy, the governance structures that operate to realise the strategy, and the types and ways in which evidence is collected to judge success and enhance decision-making for future advancements. Continuous quality improvement processes do not seem well developed and understood as applied to advancing the quality of OLEs. These crucial elements of the framework, and their interrelationships, need urgent attention. Committee structures need appropriate representation, including from those representing strategic external partners, and need to work effectively; that is, to make evidence-based decisions in accordance with overall strategic directions.

7. Organisational leaders need to strengthen institutional commitments to the systematic evaluation of OLEs, involve key stakeholders and ensure that evaluation findings are fed back through appropriate governance structures and localised communities of practice.

Systematic institutional evaluation of OLEs was seen as a weak link in the overall chain of actions required to advance the quality management of such environments. Such evaluation is the prime indicator of the OLE's cost-effectiveness, a lead indicator of the institution's success in implementing its OLE strategy, and a useful guide to the development of a robust distributed leadership capability underlying the enabling of the whole enterprise. Evaluation approaches must be inclusive of all stakeholders, use well-developed data collection methods, and collect relevant data over good periods of time, encompassing timing horizons for the implementation of OLE strategies; the results of such activity must be fed back into governance structures to inform decision-making, and be cascaded through various leadership levels to inform academic teaching decisions on the ground.

Some exemplary communication strategies are highlighted in the guidelines documents.

Part A: Framing the quality management of OLEs in Australian higher education

Section 1: Overview of the 6EOLE Quality Management Framework

The 6EOLE Quality Management Framework was constructed from partner institutional profiling around common issues of importance identified at the beginning of the project (see the project **report**). It was further informed by cross-reference with the Australasian Council on Open, Distance and E-learning (ACODE) e-Learning benchmarking standards. The project aimed to minimise the number of elements, and provide descriptors of each one outlining key areas of concern. Although the *Report on the Survey of ACODE Institutional Representatives at Australasian Universities* (Palmer, 2012, p. 7) indicated that respondents considered it was important to list other elements they considered important for the effective leadership of the OLE in their university, the 24 elements listed could readily be subsumed within these major categories. Also highlighted is the interconnectedness of the elements, suggesting that changes to one can potentially influence other elements. The foregrounding of the scope, dimensions and characteristics of distributed leadership is covered in Part A, Section 2.

In relation to the significance of each of the elements, a starting point would be 'Planning', encapsulating strategic and operational matters. Where institutions strategically locate themselves in the higher education marketplace (their online learning mission, vision), as translated through various operational plans, can profoundly shape other elements in the framework, notably resource commitments. Particular strategic viewpoints can shape enabling organisational structures of service provision, and the governance mechanism around the selection, deployment, maintenance and retirement of institutionally supported 'technologies' (for teaching and learning). Evaluation remains an enduring concern in the process of realising the value of technologies adopted in the educational enterprise. In addition, closing the loop on evaluation findings back into decision-making through governance is a critical, and as the readers will see, at times problematic alignment.

Defining the elements of the 6EOLE Quality Management Framework

Planning: external environmental analysis and trend spotting, strategic intelligence gathering, external benchmarking, organisational capacity analysis, institutional purpose, reputation, vision, principles, objectives and strategies, accountabilities, timelines, resource implications

Technologies (for teaching and learning): type, range, integration, promotion, innovation, mainstreaming of emerging technologies

Organisational structure: nature, range, coordination and delivery of valued services (underpinned by clarity of understanding of needed expertise/staffing capabilities) for staff and students

Evaluation: stakeholders' needs, methods, reporting, decision-making through governance structures, evaluation relating to the initial selection of new technology, and evidence gathering relating to the ongoing assessment of its performance, value and impact

Governance: institutional, faculty and school/department committees and forums (and associated responsibilities and accountabilities), policies and standards

Resourcing: maintenance and enhancement of technologies, skills recognition and staff development, media production, evaluation activities, governance mechanisms, i.e. all other elements

The **institutional planning and quality cycle**, as represented in the Framework, is seen to represent ongoing planning, implementing, evaluating, reviewing and improving functions encapsulating all of the organisation's core business activities.

The checklists in the associated guidelines documents will assist organisational leaders and other users to manage the relationship among the elements effectively.

The Framework can be used to aid external benchmarking in the sector using existing standards and models.

The 6EOLE Quality Management Framework

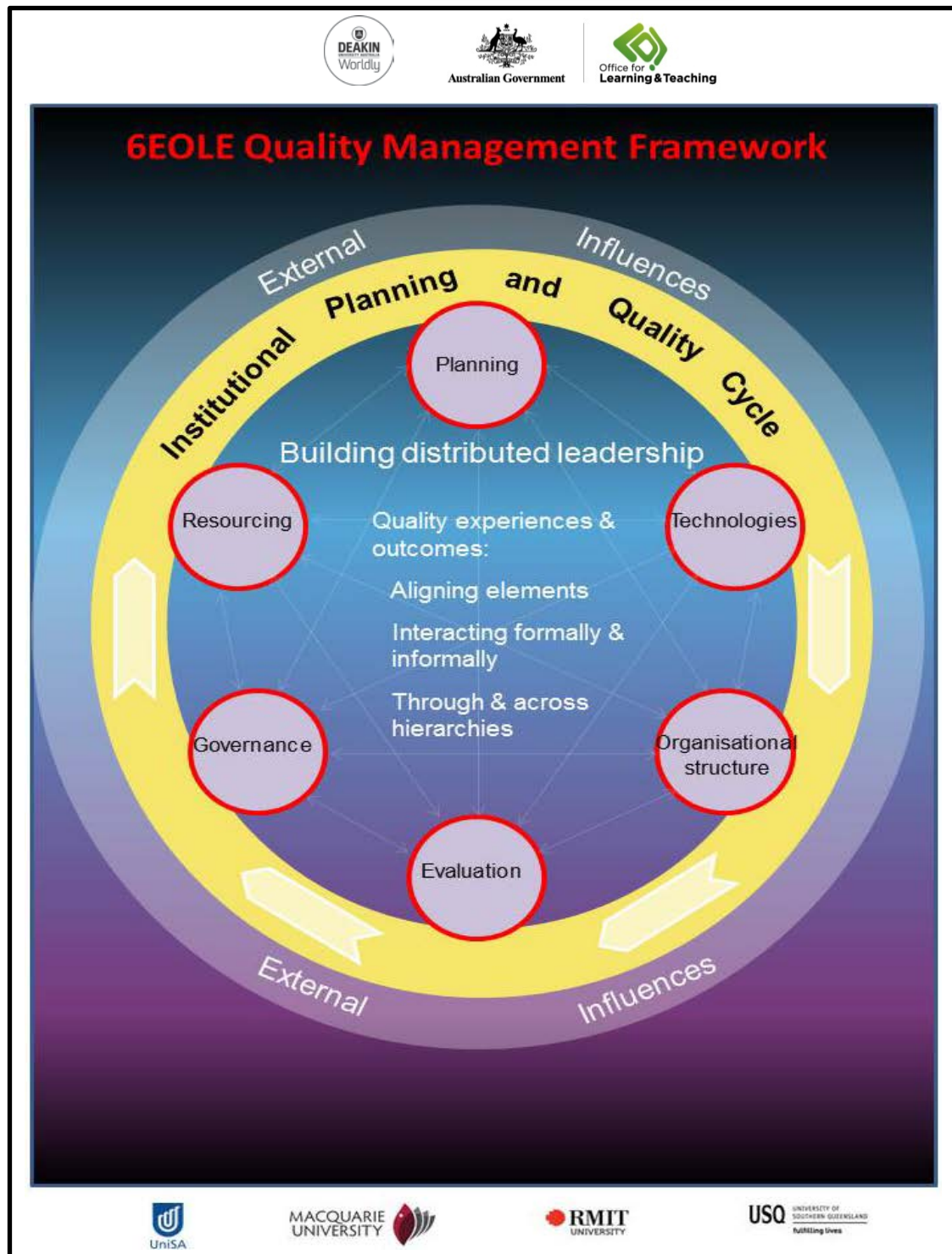


Figure 1: 6EOLE Quality Management Framework

Key assumptions underpinning the Framework

Beyond the elements themselves, and their alignments, ten key assumptions were identified underpinning the Framework's configuration:

1. Various information and communication technologies (ICTs) constitute an institution's OLE and demand a total approach to quality management
2. Certain ICTs have been designed specifically for educational uses and are institutionally controlled and supported for mainstream use
3. Other ICTs (sometimes described as Web2, social media, social networking or cloud-based technologies) are not necessarily controlled and supported by the institution
4. Non-corporately supported ICTs might be locally developed and supported within the institution, supported centrally by the organisation for limited selective use or located outside the institution for open use
5. The total quality management of OLEs requires the broadest conception of the variety of ICTs which can be used for educational purposes and strategic approaches to the leadership of their use in sustainable and responsive ways
6. A quality management framework for OLEs needs to encompass a range of elements that must be taken account of in deriving the best possible teaching and learning value (i.e. experiences and outcomes) from all investments in ICTs
7. Investments cover staff and student time, production of resources and various ICT budget expenditures on hardware, software and networks
8. Staff time covers all relevant academic teaching and non-academic general and professional staff throughout the organisation
9. There are critical questions emerging around how quality management of OLEs can best be done given the changing landscape of ICTs and the institutional demands placed on OLE leadership to respond to external pressures and trends in positioning their institutions in the competitive higher education marketplace
10. While common elements of quality management of OLEs are evident and critical questions of shared significance identifiable, specific quality management approaches are contingent on institutional histories, current positioning and future aspirations.

Expectations in managing the quality of OLEs

In relation to expectations surrounding quality management, it is seen to require:

1. A whole-of-institution approach
2. OLEs to be strategically situated in the organisation's positioning in the higher education marketplace
3. Strategic positioning to deal with all aspects of the institution's curriculum; that is, design, delivery and staffing
4. That the broadest range of teaching and support staff and students derive the best possible value from the use of OLEs
5. That OLEs are sustainable and responsive to changing circumstances within and external to the organisation
6. Future ICT trend forecasting and the capacity to foster innovation and the measured integration of ICTs
7. The development of capacities (skills and resources) to best address each of the six elements in the Framework
8. An enhanced form of distributed leadership approach given the complexity of the task and the range and types of both formal and informal leadership expertise involved.

Managing OLEs for quality assurance and continuous quality improvement

An important idea from the contemporary conceptualisation of quality is that all areas of an organisation contribute to the final quality of the services and products produced (Juran, 1988). There is a system-wide 'quality function' that exists and affects quality. Research suggests that up to 85 per cent of quality issues are the result of systemic factors beyond the control of individual staff (Deming, 2000). The general concept that arises here is that quality is primarily a management responsibility, and the operation of the entire organisation needs to be considered when seeking to improve quality. In a university context, this implies that the student perception of quality is likely to be influenced just as much by the reliable and effective operation of the OLE as by the currency of course material.

OLEs are perhaps currently the most widely used and most expensive educational technology tool (Salinas, 2008). The choice of a particular system is a significant decision-making event shaping institutional approaches to ICT-enabled learning for a considerable period. Many university leaders have a stake in making and implementing such a choice, ranging across university senior executive members; leadership of central teaching, learning, media production and IT groups; and through various levels of faculty academic leadership.

Almost all staff in a university use and rely on OLEs in enabling student learning. Having committed to a particular system, how do all of these leaders work together to maximise value, what types of data are collected at what levels of the organisation to assure and improve the quality of use, and how is evidence acted upon through the various decision-making structures of the institution? These questions illuminate the need to conceptualise and draw together the elements of a whole-of-institution approach to leading the quality management of OLEs, with their major focus on learning management systems (LMSs), and increasing need to take account of social networking environments. In the context of quality management, frameworks arise because, as noted previously, quality is a multi-dimensional construct that resists collapsing into simple, single measures in all but the most trivial conceptions. In the context of OLEs, frameworks abound, including those specifically focusing on quality of student online learning. They go by many names: frameworks, models, benchmarks, systems, and so on (Inglis, 2008).

Relevant to the project is the importance of quality management systems, and their current state of underdevelopment in higher education, as highlighted by Fullan and Scott (2009). Turnaround leadership, Fullan and Scott argue, is dependent on the development of such systems, and a greater focus on outcomes and impact (as opposed to inputs). They also observe that:

... a focus on robust evidence is often not front and centre when it comes to making decisions about what most requires improvement and attention in universities, what their key strategic directions should be, or how well their core activities are currently working in practice ... A university culture characterised by a commitment to continuous evaluation, inquiry, and quality improvement concentrates on using evidence to identify what aspects of its current provision are working well and what most needs enhancement. (Fullan & Scott, 2009, p. 80)

We argue that effective leadership of OLEs is also dependent on such systems with the associated focus on learning and teaching outcomes and impacts, and such systems are nowhere more important than in areas of greatest strategic importance and value to the institution: corporately supported OLEs and associated e-Learning technology investments. We concur with Fullan and Scott (2009) that much greater commitment to systematic institutional evidence gathering and use is required in the area of OLE implementations. To many, the idea of applying quality concepts to aspects of education is anathema (Anderson, 2006); however, to move beyond transcendent conceptions of quality requires the specification of some process and/or output characteristics that can be measured.

The management of quality encompasses both quality assurance (achieving and maintaining agreed levels of quality) and quality improvement. In the literature, there is no shortage of available quality improvement techniques. In the context of quality in higher education, many authors suggest (perhaps appropriately for universities) the model of the 'learning organisation' as a way to move from a culture of compliance to improvement (Avdjieva &

Wilson, 2002; Hodgkinson & Brown, 2003; Yorke, 2000). A learning organisation is one that achieves both individual and collective learning through open and honest reflective practices based on objective information.

Action research is presented as a quality improvement approach that embodies the learning organisation philosophy (Kekäle & Pirttila, 2006) in a methodology that would be familiar to many academic staff. The similarity between the cyclical nature of the action research model and the cyclical nature of the plan-do-check-act cycle that is the core of many quality improvement methodologies has been noted elsewhere (Tolbert, McLean & Myers, 2002). While the application of action research in higher education can be interpreted in a range of ways (Kember & Kelly, 1993), generally, action research seeks to improve/transform practice through the considered application of actions, objective evaluation of outcomes and the continued refinement of our understanding of the factors at play in a given situation. It incorporates the concept of well-informed action and, when applied to improving the quality of teaching and learning, challenges us to define 'quality', and to develop methods to measure this quality.

Quality may be an elusive and subjective concept, but there are well-understood generic definitions and process for the management, assurance and improvement of quality. Ultimately, quality can be whatever the relevant stakeholders agree that it should be (such as in the case in benchmarking), but it must be quantifiable – if it cannot be measured, it cannot be controlled or enhanced. There are a number of frameworks in the literature that can provide useful perspectives on quality management as it applies to OLEs. The precise form of quality management framework employed will depend on the system being controlled and the purposes for that control; however, generically, an OLE quality management framework should:

- identify areas and processes of the institution that influence system performance and quality
- provide a mechanism for the quantitative assessment/measurement of system quality performance
- enable internal and external benchmarking for improvement
- highlight areas, functions, processes and mechanisms that might be improved for overall quality enhancement.

Leading the development of OLEs as part of organisational renewal and transformation

Many observers make a distinction between the roles of management and leadership. The management role is seen to focus on the ongoing competent oversight of the organisational status quo in relatively stable external environments, while the leadership role relates to efforts to move organisations from current states to new desired ones. This can involve major organisational renewal and transformation, and might relate specifically to major new strategic directions in e-Learning. Scott, Coates and Anderson (2008) undertook a nationally based study of teaching and learning leadership in Australian higher education. They emphasised the significant challenges confronting universities and the need to develop change-ready cultures and capable leaders to help achieve desired change. From this work, they developed and tested an Academic Leadership Capability framework in support of the leadership development required to manage change effectively. This framework identifies three capability categories (personal, interpersonal, cognitive) and two competency categories (generic, role-specific). Such work synthesising many specialised studies in the mainstream world of management is affirmed in a similar conceptualisation presented by Mintzberg (2004, p. 260) whose list of managerial competencies covers personal, interpersonal, information and action domains.

The need for turnaround leadership in higher education was further pursued by Fullan and Scott (2009). As they remark, in order to lead organisational change effectively, ‘... all this is going to require systematic leadership in all quarters of the university ... higher education institutions, like any of the top organisations in the world, *will have to deliberately cultivate leadership capabilities within their own ranks*’ (Fullan & Scott, 2009, p. 71). This thinking accords strongly with the need to develop appropriate forms of distributed leadership in effecting desired organisational change.

Fullan and Scott (2009, pp. 76–78) outline the characteristics of what they call change-capable universities, and these characteristics seem pertinent to the quality management of (currently rapidly changing) OLEs in higher education:

- the organisation and their leaders do not react defensively to setbacks and work collaboratively to understand causes and put in place solutions
- evidence (not anecdote) underpins diagnoses of problems and the implementation of solutions
- a manageable, and clearly articulated and understood set of priorities are established
- difficult decisions are taken based on evidence and due consideration of all affected parties
- clear lines of responsibility and accountability are established for achieving desired outcomes, with a minimum amount of ambiguity
- inclusive view of the staff required to make desired change happen successfully
- focus on outcomes as well as inputs; that is, wanting to know if the intended benefits occurred for the key parties involved
- ensure the appropriate use of various levels of approvals in the system; that is, approvals higher up should not inappropriately stop or slow down worthy initiatives
- key meetings are run to achieve valued outcomes
- focused, responsive and collaborative teamwork is undertaken
- well-conceived, executed and evaluated trials are undertaken when needed before commitment to mainstreaming
- organisation and key parties are well networked internally and externally to undertake useful comparative investigations of strategic importance.

Fullan and Scott (2009, pp. 99–103) expound a turnaround leadership manifesto around the need to listen, link and lead, as supported by the need to model, teach and learn. Successful change leaders need to demonstrate and develop these capacities for successful implementation:

- Change leaders must listen to the full range of views expressed by all parties affected by the change, including those who might appear to be most resisting the change effort. Listening must be focused on the change sought, and views must be carefully processed through an emerging plan of action. In other words, listening must be active – a means of shaping more informed change actions based on genuinely engaging with a diverse range of ideas – and not as a matter of going through the motions of listening for listening’s sake. The latter can be seen as a shallow process of appeasement or mere tokenism.
- The activity of linking is about determining the most appropriate course of action through concrete planning, further feedback from affected parties, some manageable refinement but then readiness to try something new under controlled conditions.
- Leading is working in partnership with those who must carry out the plan of action, with an openness to learn through the act of undertaking it. Leading well gives those who carry most responsibility for implementing the change the chance to try things out, evaluate and adjust if things don’t go as well as expected. This is a positive, encouraging form of leading – not a style of leadership based on blame and punishment when things might go wrong. It involves moving on with broadening the change effort if things are going well, yet further cycles of doing, reflecting, learning and improving. All of this action-based learning keeps desired outcomes of the change effort clearly in mind, as well as the need to generate the evidence of successful implementation.

As part of the listen, link and lead manifesto, Fullan and Scott (2009) argue that turnaround leaders fulfil three important roles:

They intentionally model the change-capable culture they want their institutions to develop; they teach their staff how best to implement a desired change; and they take on the role of learner, seeing what does and doesn’t work in their area of responsibility, and they self-monitor their performance on the capabilities that distinguish effective leaders in universities, always seeking to improve in any areas found wanting. (pp. 101–102)

Kotter (1996, p. 21) outlines an eight-stage process of creating major change:

1. **Establishing a sense of urgency:** examining the market and competitive realities; identifying and discussing crises, potential crises, or major opportunities
2. **Creating the guiding coalition:** putting together a group with enough power to lead the change; getting the group to work together like a team
3. **Developing a vision and strategy:** creating a vision to help direct the change effort; developing strategies for achieving that vision
4. **Communicating the change vision:** using every vehicle possible to constantly communicate the new vision and strategies; having the guiding coalition role model the behaviour expected of employees
5. **Empowering broad-based action:** getting rid of obstacles; changing systems or structures that undermine the change vision; encouraging risk taking and non-traditional ideas, activities, and actions
6. **Generating short-term wins:** planning for visible improvements in performance, or ‘wins’; creating those wins; visibly recognising and rewarding people who made the wins possible
7. **Consolidating gains and producing more change:** using increased credibility to change all systems, structures, and policies that don’t fit together and don’t fit the transformation

vision; hiring, promoting, and developing people who can implement the change vision; reinvigorating the process with new projects, themes, and change agents

8. **Anchoring new approaches in the culture:** creating better performance through customer- and productivity-oriented behaviour, more and better leadership, and more effective management; articulating the connections between new behaviours and organisational success; developing means to ensure leadership development and succession.

By implication, Kotter (1996, p. 16) identifies eight errors common to organisational change efforts when the above eight steps are not well understood and fully conducted: allowing complacency; failure to create powerful guiding coalition; underestimating the power of vision; grossly under-communicating the vision; not removing obstacles which block the vision; failure to create short-term wins; prematurely declaring victory; and neglecting to anchor changes firmly in the organisation's culture. The consequences of making these errors cover strategies not implemented well, mergers which don't achieve expected benefits, process reengineering that takes too long and costs too much, downsizing that does not get costs under control and quality programs that fail to deliver intended outcomes. The emphasis of Kotter's process on the transformational power of a well-articulated, well-communicated relevant and meaningful vision, strongly supported by a strong guiding coalition (based, we might argue, on a distributed/shared leadership model), is a strength of the approach. He summarises the characteristics of an effective vision as follows:

- **Imaginable:** conveys a picture of what the future will look like
- **Desirable:** appeals to the long-term interests of employees, customers, stockholders, and others who have a stake in the enterprise
- **Feasible:** comprises realistic, attainable goals
- **Focused:** is clear enough to provide guidance in decision-making
- **Flexible:** is general enough to allow individual initiative and alternative responses in light of changing conditions
- **Communicable:** is easy to communicate; can be successfully explained within five minutes. (Kotter, 1996, p. 72)

These perspectives on leadership can be readily applied to the world of e-Learning in higher education. They suggest the importance of senior leadership building distributed leadership capacity to shape and realise the value of strategic initiatives.

Section 2: The rationale, scope and benefits of distributed leadership

Rationale for shared/distributed leadership

In this project, terms like 'distributed leadership' and 'shared leadership' have been used interchangeably. We acknowledge that the whole field of distributed leadership is still developing, and areas of it are not settled. We have drawn upon literature that directly references 'distributed leadership', along with what we have seen as relevant literature on 'shared leadership'.

Pearce and Conger (2003) observe that:

Leadership has historically been conceived around an individual and his or her relationship to subordinates or followers. As a result, the leadership field has focused its attention on the behaviors, mindsets, and actions of *the leader* in a team or organisation. This paradigm has dominated our thinking in the organisational field for decades. In recent years, however, a few scholars have challenged this notion, arguing that leadership is an *activity* that is shared or distributed among members of a group or organisation. (p. xi)

Spillane (2006, p. 4) identifies three elements defining distributed leadership:

- leadership practice is the central and anchoring concern
- leadership practice is generated in the interactions of leaders, followers, and their situation; each element is essential for leadership practice
- the situation both defines leadership practice and is defined through leadership practice.

Various authors have highlighted the importance of distributed leadership to modern, large, complex and dispersed organisations:

The high-tech, information-oriented reality of today's business environments will most likely continue to demand flexible, responsive organisations populated with highly independent, well-educated knowledge workers. In response, organisational structures will continue the evolution toward more decentralized organisational forms founded on concepts like empowerment and self-managing teams. (Houghton, Neck & Manz, 2003, p. 135)

The lesson is this: 'The more interdependent the work of co-leaders, the more input they should solicit from affected others and the more they need to coordinate between themselves'. (O'Toole, Galbraith & Lawler, 2003, p. 260)

Shared leadership is therefore an effective solution to a fundamental dilemma: No single individual possesses the capacity to effectively play all possible leadership roles within a group or organisational setting. (Conger & Pearce, 2003, p. 285)

A general perspective on distributed leadership from higher education is given by Bolden et al. (2008):

The view of distributed leadership as complementary rather than an alternative to traditional hierarchical/individual leadership is echoed in similar research conducted in the further education sector whereby it was concluded that there is a preference for a 'blended leadership' approach that combines elements of both forms. (p. 41)

For the purposes of this project, it can be seen that universities affect and are impacted by globalisation. They actively contribute to research and development and assume responsibility for the education of professional workforces who lead and operate in such globalised economies. Universities are subjected to a growing list of demands and expectations of various parties who have an active interest in education for globalised work and informed citizenship. Students, the key consumers of higher education services, are becoming more diverse and demanding in terms of their requirements, and demands for services that fit their circumstances. As one educational leader recently quipped, 'They want it all, now!' The veritable IT revolution (now increasingly focused on mobile devices and applications) has new demands, along with unimagined opportunities, to reconceptualise their core purposes around the creation, storage and dissemination of valued forms of knowledge for the benefit of various constituencies.

Fullan and Scott (2009) see external environmental forces creating various challenges for higher education, and these challenges require universities to develop change capable cultures, and the broad base of leaders and leadership capabilities required to achieve this. The challenges cover the need for greater access to higher education, pressures for new sources of revenue, growing export markets and the growth of new competition in the international higher education market, greater demands for user-pays schemes and changing patterns of participation, and the changing expectations of students and growing diversity and consequent pressures on maintaining academic standards (Fullan & Scott, 2009, p. 30). Nothing exemplifies the new wave of competition in global e-Learning more than the wide-ranging recent developments in massive open online courses (MOOCs), being principally driven by partnerships amongst elite US research-based universities. Their counterparts can be seen within Australia with the growing profile and reach of Open Universities Australia (OUA) and its founding members and providers. These trends towards the power of leading external partnerships and being involved in multi-institutional national, and in some cases international, consortia adds another significant dimension to building more encompassing distributed leadership capacities for advancing the quality of OLEs.

Jones, Applebee, Harvey and Lefoe (2010) explicitly relate the value of distributed leadership back to external challenge confronting universities:

Distributed leadership is being researched for its potential to explore alternate approaches to leadership. Such alternative approaches are part of universities' response to the challenges of operating in the globally competitive market in which education is increasingly recognised for its economic value. The changes facing higher education over the last twenty years have resulted in many challenges throughout the sector, not least of which is the need to reshape governance structures. (p. 360)

Distributed leadership approaches seem particularly relevant to the quality management of online learning environments in higher education. The leadership of quality online learning environments is becoming more complex and demanding as we see the growing size and reach of universities (some with offshore campus operations, and others now involved in strategic partnerships), with the growing number of ICTs which constitute such environments, with the loosening of institutional control over certain technologies which can be used for effective learning and teaching, with the greater size and more diverse composition of universities' workforces and student populations, and the ever present multiplicity of curricular and pedagogical models which underlie an ever-expanding range of occupations and professions requiring higher level education. No one formal leader at the top, no matter how ambitious and knowledgeable, could possibly contend with the complexity of issues related to the quality management of OLEs. Leaders must be mobilised down, across and throughout the organisation to realise the full benefits of massive institutional investments in online learning systems.

Key alignments

Distributed leadership essentially involves both the vertical and lateral dimensions of leadership practice. Distributed leadership encompasses both formal and the informal forms of leadership practice within its framing, analysis and interpretation. It is primarily concerned with the co-performance of leadership and the reciprocal interdependencies that shape that leadership practice. (Harris, 2009, p. 5)

Based on the scope of distributed leadership identified by Harris (2009), a number of key alignments become prominent in higher education institutions:

- Vertically amongst faculty formal leaders in hierarchy
- Vertically amongst senior executive leaders and faculty formal leaders
- Horizontally amongst senior executive leaders
- Horizontally amongst faculty formal leaders across hierarchies
- Horizontally amongst senior executive leaders and across faculty leadership
- Informal academic and professional support leadership horizontally amongst staff at discipline, school, faculty and interfaculty levels/domains
- Informal leadership at particular locations in multi-campus environments.

Appreciating the full spectrum of alignments is important in developing strategies to build distributed leadership capability throughout the organisation.

The project's position is that distributed leadership can contribute to the clarity of shared understanding of elements, and the constructive alignments amongst them, for enhancing the quality management of OLEs. To achieve this, distributed leadership must be acknowledged in all its forms, developed, and well-aligned vertically and horizontally.

Characteristics

The project team developed a list of 12 factors that characterise effective distributed leadership capacity building, the most prominent of which relates to allowing staff to exercise appropriate individual and collective agency in their contribution to their OLE.

1. **Enabled individual and collective agency** (staff can take action based on their professional judgment making and in interaction with colleagues in their domains of work and sphere of responsibility)
2. **Co-created and shared vision** (the organisation draws on good practices by, and viewpoints from, a broad range of stakeholders in developing a sense of desired future state (vision) and provides parties with the best possible opportunities to help realise the vision which in turn helps to expand its meaning and potential value)
3. **Inclusive of all those who lead** (the organisation's senior formal leadership give the broadest possible definition to those who can demonstrate leadership, both in formal and informal roles, in creating the desired future state)
4. **Broadest recognition of leadership** (the organisation's senior formal leadership establish mechanisms for recognising in various ways contributions from the broadest range of leadership roles)
5. **Communicative and engaging** (organisational leadership at every level and in every domain need to adopt leadership styles which are highly communicative and engaging in order to create the conditions for high motivation, commitment to vision and performance)
6. **Appropriate responsibilities** (those in formally recognised leadership roles need to be given responsibilities appropriate to their level of appointment and their defined domain of responsibility)
7. **Meaningful rewards** (the organisation's senior formal leadership establish mechanisms for meaningfully rewarding, in various ways, contributions from the broadest range of leadership roles)
8. **Trusting and respectful** (organisational leadership must trust and respect all those parties that can contribute to the achievement of the vision, including by dealing constructively with resistance and opposing views)
9. **Collaborative in development** (organisational leadership need to create conditions conducive to collaborative enterprise where the various parties who can actively contribute do so on the basis that collective effort will lead to higher performance than individual effort alone)
10. **Nurturing of valued professional expertise** (formal leaders need to ensure that a multiplicity of professional development and learning opportunities exist consistent with desired directions to nurture professional expertise that counts)
11. **Valuing professional forums and communities** (organisational leadership need to cultivate a comprehensive learning environment at local, mid-range and institutional levels where parties wish and are supported to come together voluntarily to share and enhance professional practice)
12. **Continuity and sustainability** (organisational leadership at every level and in every domain is well aligned and committed to concerted action to realise vision and to do so in ways where outcomes are sustainable; that is, continuingly realisable and affordable at least over longer planning cycles).

ACODE survey findings on alignments and characteristics

One of the research activities undertaken for this project included an online survey of ACODE (Australasian Council on Open, Distance and E-learning) institutional representatives at Australasian universities (conducted during March 2012). The survey included items seeking respondents' perceptions of the importance of, and effectiveness of, two aspects of distributed leadership in their organisation. Respondents were asked to consider the performance of distributed leadership in their organisation from the perspective of the alignments between:

1. The vertical (formal line reporting relationships) and horizontal (peers in different work groups) actors/actions
2. The formal (organisationally appointed/sanctioned) and informal (emergent and relationship-based) actors/actions.

For this section of the survey, responses were received from 28 of the 46 ACODE institutional representatives. Analysis of the respondent demographic information revealed that the respondent group was representative of the wider university sector in Australasia.

The alignment of distributed leadership relationships that might be inferred from an organisational chart, including those that might be observed running both vertically and horizontally, was rated as significantly more important and effective. The alignment of distributed leadership relationships that might be seen as cutting obliquely across the 'natural' linear linkages in the formal organisational structure, and arising between formal and informal organisational leaders, was viewed as significantly less important and less effective. Additionally, this was a common response from all types of higher education institutions.

This finding suggests that those in formal leadership roles have a significant responsibility to develop and foster distributed leadership capacity within universities, if it is to be successful and sustained. There is evidence for this proposition in the literature. It has been theorised that distributed organisations will be most effective when they exhibit shared, distributed leadership at the operational level, complemented and underpinned by strong centralised leadership at the strategic level (Heckman, Crowston & Misiolek, 2007). In a large field investigation of leadership in work teams, it was found that distributed forms of leadership per se were not associated with superior team performance. However, one specific form of distributed leadership, where there was a strong and productive relationship between formal and informal/emergent group leaders, was associated with superior team performance (Mehra, Smith, Dixon & Robertson, 2006). Given the observed survey results, it appears that the relationship between formal and informal leaders could be improved, and that an improvement would potentially be beneficial to organisational performance.

An additional element of the survey presented respondents with the 12 characteristics of distributed leadership identified in the Framework (see above).

For each of the 12 characteristics of distributed leadership, respondents were asked to rate how important that characteristic is for effective distributed leadership at their university, and how clearly in evidence that characteristic of distributed leadership is at their university. For this section of the survey, responses were received from 27 of the 46 ACODE institutional representatives.

Characteristics rated as important and most in evidence included 'Communicative and engaging', 'Collaborative in development' and 'Trusting and respectful'. Characteristics rated as least important and least in evidence included 'Meaningful rewards' and 'Broadest recognition of leadership'. Generally, those characteristics rating relatively highly on importance were also rated as relatively highly in evidence. However, one characteristic was decidedly 'off-diagonal' – 'Continuity and sustainability' received the highest mean rating for importance combined with almost the lowest mean rating for 'in evidence', suggesting a concern for the long-term sustainability of distributed leadership in the sector. Additionally, these responses were common across all types of higher education institutions.

Role of senior management in cultivating shared/distributed leadership, and limits

Houghton, Neck and Manz (2003) argue that for the primacy of the role of formal senior leadership in cultivating shared leadership:

We will also propose that the primary role of the vertical team leader is to become a SuperLeader, that is, a leader who leads followers to lead themselves through empowerment and the development of self-leadership skills. (p. 124)

... the SuperLeader focuses primarily on the empowering roles of helping, encouraging, and supporting followers in the development of personal responsibility, individual initiative, self-confidence, self-goal setting, self-problem solving, opportunity thinking, self-leadership, and psychological ownership of their work and duties. (p. 133)

A synthesis of findings from the first three project focus groups reinforced the locus of leadership responsibility for cultivating an organisational environment conducive to distributed leadership. However, the exercise of this responsibility has a distinctive meaning and carries a distinctive set of practices in higher education institutions.

The concept of a senior leader – all powerful, all knowing and able to shape the OLE agenda in ways that meet the needs of an institution and all its stakeholders – may be seductive but is illusionary. The complexity of the OLE, with its many layers and players as well as the differing demands at varying stages of the OLE continuum, militates against this and it is naïve to believe that everyone will be equally content with the vision and strategies adopted. What is required is for senior leadership to facilitate a strategic view broad enough to accommodate different perspectives, yet sufficiently coherent and cohesive for a university's staff to have confidence that they are working within an enabling environment towards a well-understood and agreed-to end.

Project focus group discussion (FGD) participants looked for leadership that was inspirational, that could shape the large picture and that could make the big decisions. Senior leaders are the critical voices in shaping the culture of any institution. Beyond this, it needs to be recognised and acknowledged that it is senior leaders who make the decision to empower others to lead by creating these opportunities and then supporting those whose leadership is more at the local level. A commitment to building leadership capacity across an institution is a fundamental requirement. Hence senior leaders need to be convinced of the validity and usefulness of such an approach and those who are then given leadership opportunities, in turn, need to be convinced that their contribution value-adds to the OLE agenda and to their professional and personal development.

If the rhetoric of distributed learning is that every staff member is responsible and accountable for leadership within their area, the reality is that not all staff are engaged with the OLE agenda, nor are they interested in assuming any sort of leadership role within it. As many of the acknowledged OLE leaders who participated in the focus groups still looked to others to make the major decisions, many more academics tend to seek OLE solutions that will impact minimally on their world – if at all – or, as they are drawn into this environment, they seek approaches and support that demonstrably improve their teaching and their students' learning. Their concerns remain more with the immediate. What a model of distributed leadership *can* allow is for leaders at the local level to lead the discussion that exposes differing viewpoints and assumptions, and tap into local expertise and knowledge. There is a distinction between making decisions and contributing to the decisions being made and this approach allows teaching staff, at all levels, to have increased confidence that their concerns are known and considered; it also means that support can be well targeted. Leaders at the local level are more strongly positioned to know the reality of the teaching experience for individual academics and be aware of their individual professional and personal needs. When these leaders also have institutional roles, they can have a significant role in bringing the institutional and local perspectives together, to the benefit of both.

While there was consensus that alignment between the various groups and leaders is critical, the FGDs revealed that this was variously understood and achieved. Uncertainty regarding where leadership resides and perceptions that the flow between the different

elements was not well understood suggest these are areas that need addressing in some institutions. Given the resources devoted to documentation, it is significant that there were consistent claims that key documents were not widely read beyond the immediate group responsible for their compilation. While there were some comments suggesting some of the documents were not perceived as useful, this seems to be attributable – at least in part – to the lack of well-articulated, widely known and understood connections between the key elements. Undeniably, the OLE impacts on teaching and learning and it is disturbing that the FGD round that looked specifically at this revealed that the voice of the teaching academic is often not adequately heard.

The OLE is not a fixed, static entity: it evolves. While there are key determining decisions, such as a major investment in a Moodle or a decision to work with open source solutions, how these decisions are then enacted at multi-campus complex institutions requires ongoing attention and embedded cyclical evidence-based review. Further, leaders come and go and senior leaders, in particular, are prone to seek transformational change. Those who hold senior leadership roles should have the authority to make the most profound influence on the institutional culture and the OLE. The FGDs suggest that, where this leadership builds on meaningful and ongoing consultation and communication with all interested parties and ensures appropriate systems and processes are put in place and monitored, the OLE is more likely to progress. A model of distributed leadership is likely to allow local and institutional perspectives to be more readily understood and accommodated and this should assist the maintenance and development of meaningful and productive alignments to ensure incremental OLE developments within an organising structure such as the 6EOLE Quality Management Framework.

Online learning is part of the normative tertiary experience. The issue for leaders in this context is how to move staff – and students – from compliance to commitment to ensure the OLE can be used most effectively for teaching and learning.

Part B: Actioning the elements of the Quality Management Framework

In this part, the focus turns to how elements and their alignments can be actioned. By ‘action’ we mean how staff can go about thinking through and taking action to enhance the functioning and performance of each element, and the relationships amongst them. Ways of thinking through actioning elements, and their relationships, is examined through the focus group activities and findings conducted as part of the project’s implementation methodology. Readers may wish to run the same or similar activities in their own organisational context and compare their findings with those synthesised from the various project focus groups. At the end of each element’s examination, readers will find a good characteristics and practices checklist to further aid their own institutional deliberations.

Section 1: Actioning the elements

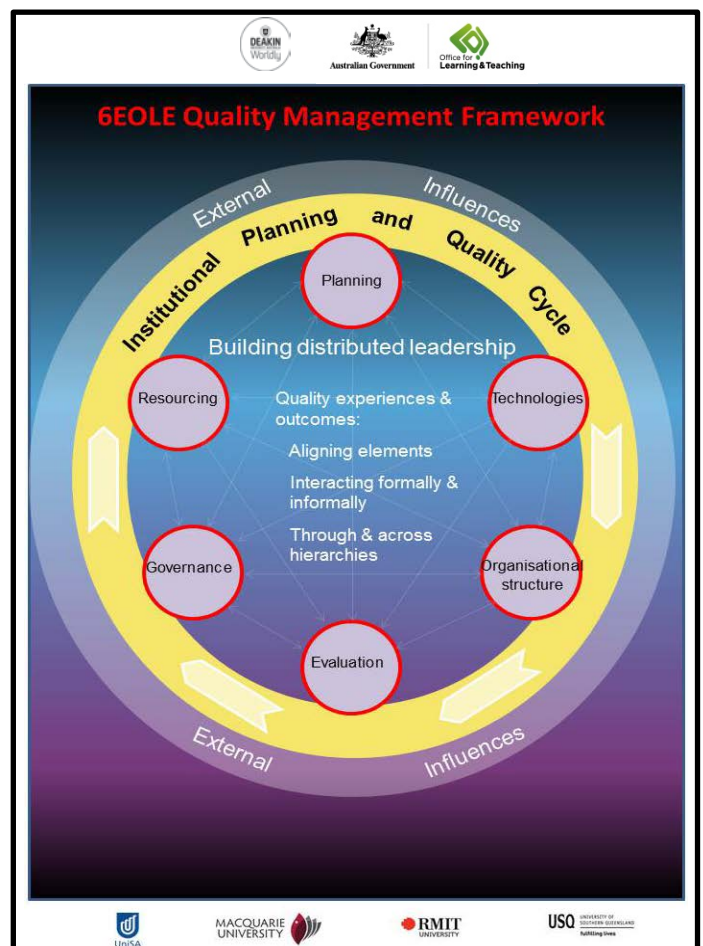
Planning

Focus group activity

A focus group discussion (FGD) was facilitated with each of the five partner institutions in May–June 2011. The topic for the focus group was ‘Leadership and planning’.

Participants

47 of 58 (81%) invitees participated. Of these, 29 came from central areas and 18 from the faculties mainly through ADTLs or their equivalents. The most senior staff who participated was at Vice-President [VP] / Deputy Vice-Chancellor [DVC] / Pro Vice-Chancellor [PVC] level. Each Head of the relevant teaching and learning centre participated and those most responsible for the technologies and governance of this area were well represented. Other attendees included university librarians and teaching and learning centre staff.



Focus group questions – Leadership and planning

- Does the university have a vision for learning and teaching? Is there an aligned or integrated vision for technologies in learning and teaching?
- Does your university have a plan or roadmap that provides the institution with a strategic direction for your OLE and, if so, how often is this plan/roadmap reviewed and updated?
- What university-wide processes are in place to ensure that the introduction of new and emerging technologies is subjected to due rigor prior to being allowed on university systems?
- What evaluation measures are in place to ensure the current use of your OLE is fulfilling the needs of both the staff and students?
- What are the relationships between the university's vision, plans, governance structures and budgeting in relation to your OLE?
- What institution-wide mechanisms are in place for managing learning and teaching as well as technologies for learning and teaching to ensure effective collaboration/communication between all relevant parties and alignment with strategic directions?

Conclusions

Investment in online learning is a significant resource allocation decision for all universities with large sums at stake, as well as the university's reputation as a quality learning institute.

Not surprisingly, institutions are at different stages of development within the OLE space. Where they are situated on the developmental continuum is not necessarily a product of how long and to what extent they have been involved with online learning. Rather, it is at what stage within the leadership cycle they are at presently. Arguably, renewal of leadership is a consistent element and, when this is at a senior level, this will have significant impacts and implications for all facets of online learning. Those universities anticipating significant senior leadership change in the next six months were also confident this would lead to positive outcomes and that present perceived deficiencies would be addressed.

If there is acceptance that the major elements in designing and implementing a quality management framework for an OLE involve leadership ensuring a shared and understood vision, strategy and plans and the effective management of teaching and learning in that space, these discussions gave a compelling indication that at some universities, and for some key players, significant elements are missing. For one university this was expressed as a lack of vision or, as another university put it, there was no 'big picture' to guide OLEs. For another, it was a lack of an effective communication strategy and for several it was the lack of a coherent plan or roadmap. As the data below evidences, while there was a sound grasp of what should be done there was acute awareness of where the reality failed to match expectations of what was necessary. Even the assumption that a 'quality management system' existed was challenged and repudiated in some sectors.

There are important differences between how institutions choose to define vision and strategy in this area. 'Horizons 2020' (the University of South Australia's strategic plan), for

example, defines a ten-year window where other institutions are presently reconceptualising such vision statements or framing them within a two-to-five-year period. There are discernible tensions, also, between those who advocate that online learning strategy, policy and planning should be separate – an indication of its distinctive character and also importance – and those who argue that it should be ‘integrated’/‘embedded’ within general teaching and learning as testimony to the fact that it is not different from normative tertiary learning. A challenge for leaders in this domain, then, seems to be to bring these views forward so they can be recognised, understood and then reconciled within an emergent strategic view that can be sufficiently broad to accommodate different perspectives, yet sufficiently coherent and cohesive for the university’s staff to have confidence that they are working within an enabling environment towards a well-understood and agreed-to end.

Fundamentally, there needs to be a shared understanding of what is required by all stakeholders so that everyone’s efforts are contributing to a shared strategic direction for the OLE: ‘It’s about doing the right thing, rather than doing things right’. It is not enough to set up strategic planning and documentation outside the users and then communicate it to them, important though that is. Distributed leadership is a model that supports having users involved throughout, and this is more likely to mean the ‘why’ is dealt with, including how this will enhance students’ learning. Central bodies need, for example, to understand more fully how their technological decisions will impact on learning and teaching; faculty staff need to appreciate, for instance, why it is unrealistic and impractical for large-scale training and trialling to be done prior to a decision for a provider of an LMS being made and that it is impossible – and undesirable if one accepts that students look for consistency most of all with their online learning – for every individual desire to be accommodated.

While there is evidence of data collection, evaluation appears as a weak element for most if not all institutions. For some, albeit a minority, the evaluation of the technologies themselves in the process leading to the decision of an LMS, for instance, has been robust but evaluation to determine the actual use to which the technology has been put and its impact on student learning is less certain. There also appears to be a significant gap between the gathering of data and good decision-making and governance in enhancing the quality assurance process of OLEs and this could indicate a less mature leadership capacity. However, several institutions are apparently at the point of (re)introducing stronger evaluation regimes.

The FGDs revealed:

- affirmation and reinforcement of processes reported in each partner institution’s profile matrix of managing OLEs, but also significant inconsistencies and gaps in awareness
- different perceptions and priorities, especially between centre and faculty staff
- lack of shared understanding
- insight and openness about present perceived failures and limitations
- inadequate leadership at this time in some institutions to develop OLEs optimally
- confidence about progress within the next 6–12 months.

Most were confident that a strategic plan was essential. It provided direction, validation and assurance. Without such a plan it was difficult to align all the areas and provide resource allocation. While different universities, with different missions and discipline areas, had different perspectives regarding the importance of online learning, in the context of universities being outward looking and global, some sort of strategic plan was essential to assist in capturing that market. From a business perspective, universities need to be more agile in terms of how they make their offers in response to the demands students have on their time and this requires a sustainable online strategy moving forward. Legal reasons, including access and equity for students, were also raised as justifying the importance of such a plan.

Those who expressed reservations did so on the basis that such planning could stifle innovation – ‘You can’t always capture what is coming over the horizon quickly enough’ – and principles may be drafted without due cognisance of technical and social innovations. Further, even though staff members could be involved in a lot of online learning, they ‘often travel completely unaware of what’s in the clouds’ and although such content filtered down through work plans, there was often not much (or nil) contact with such plans. For some:

A university is a self-organised system and plans/roadmaps come from a different ideology, from a control philosophy. It is absolutely vital to have some kind of word picture of where you are headed and what is required is a galvanizing vision that people can assemble themselves around. But as soon as you move into planning and road mapping I think you lose some flexibility and you also start to impose strictures on people and on organisational units.

While most thought such a plan/roadmap was important, what this actually was, what it should be like, and also if their university had such a document was less certain.

Staff – including senior leaders with responsibility in this area – conceded there were problems and limitations with their present planning documents: ‘[There is a] need to ask different questions that aren’t answered by our current information documents’.

It was claimed these documents were ‘not widely socialised amongst those who would actually use them’ and, because ‘the average academic was completely unaware’, these documents could not provide strategic direction. For some, the usefulness of such a roadmap was to offer strategic direction for the university; for others, its usefulness was how it was understood by, and impacted on, the staff and students using the OLE. It was agreed that alignment between users and senior management was essential. Some saw the key issue of why a particular roadmap was not useful as the failure to distribute it beyond the relevant committees to the faculties, while others saw that the problem was what was actually being distributed.

Good characteristics and practices checklist – Planning

For an OLE management plan to be considered useful it should be:	
Anchored to the strategic vision and should provide strategic direction	<input type="checkbox"/>
Simple and deal with a few well understood issues that can be successfully implemented	<input type="checkbox"/>
Coherent, easily accessible and based on/reflecting a shared, common understanding	<input type="checkbox"/>
Articulating the 'what' and 'how' so people can find their place and be confident of their contributions	<input type="checkbox"/>
Able to reflect sustainability	<input type="checkbox"/>
Agile – able to respond quickly to emergent technologies and change	<input type="checkbox"/>
Regularly reviewed and updated so that it is a living document and responsive to change	<input type="checkbox"/>
It must not:	
Be part of a large portfolio of plans	<input type="checkbox"/>
Be prescriptive or proscriptive – it must give people room to move and interpret	<input type="checkbox"/>
Preclude innovation outside it	<input type="checkbox"/>
To achieve such results requires:	
Strong leadership and commitment behind that leadership, with the issue elevated to the required level of importance and regarded as a significant priority as far as the university's planning is concerned	<input type="checkbox"/>
Organisational structure without problematic 'silos'	<input type="checkbox"/>
Having discussion and decisions regarding technology and teaching and learning in the same spaces and having the 'right' people at the 'roundtables'	<input type="checkbox"/>
Equivalent investment in OLE to match the buildings, equipment and human resources invested in face-to-face learning	<input type="checkbox"/>
A preparedness to invest in emerging technologies and innovation	<input type="checkbox"/>

Technologies (for teaching and learning)

Technologies focus group activity

A focus group discussion (FGD) was facilitated with each of the five partner institutions in April–May 2012. The topic for the focus group was ‘Technologies’.

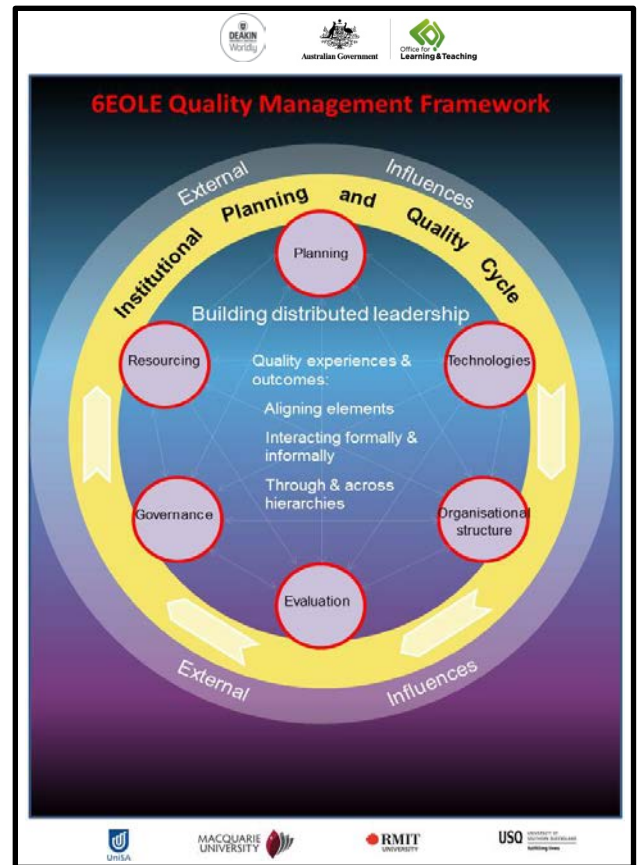
Participants

43 of 62 (69%) invitees participated. Of these, 18 came from central areas and 25 from the faculties. The focus of this FGD was the leadership and management of the online learning environment from an academic perspective: that is, the integration of the technologies into the curriculum to optimise teaching and learning.

The Technology Curriculum Nexus

Institutions provide a mix of technologies in their online learning environments: for example, LMS, lecture recordings, conferencing, portfolios, and many more. The mechanisms for establishing, maintaining and evaluating the OLE at an institutional level had been explored in the other focus groups.

This focus group explored the leadership and management of the online learning environment from an academic perspective, that is, the integration of the technologies into the curriculum to optimise teaching and learning.



Focus group questions – Technologies (1)

The first set of questions related to the management and use of technologies in individual units and across programs of study. From a distributed leadership perspective:

- Who is responsible for making decisions about the use of technologies at unit and program level and are all appropriate stakeholders involved?
- What mechanisms are in place to highlight affordances, support effective use, and identify disciplinary and contextual differences and needs?
- What quality assurance or quality enhancement processes are in place to ensure the quality of learning and teaching: for example, principles, policies, evaluation and reporting and accountability processes?
- Are quality assurances or quality enhancement enacted through a formal governance mechanism or are they more informal in nature?

In our rapidly changing culture and environment, an eye to the future is essential if students' experiences at university are to reflect the environment in which they live, work and socialise.

Focus group questions – Technologies (2)

The second set of questions related to innovation and advantage:

- How does your institution/department go about supporting innovation in learning and teaching, particularly in the development and use of your OLE?
- Are there mechanisms in place for integrating new and retiring old technologies? What is the nature of the decision-making process: is it formally governed through transparent mechanisms or more informal?
- How effectively are all perspectives and dimension taken into account: for example, technical, educational/pedagogical, organisational?
- How is successful innovation embedded into educational practice?

Conclusions

This discussion reinforced the extent of different experiences and different perceptions across five large, complex institutions. In the context of distributed leadership, it is perhaps telling – if to be expected – that the seemingly most disenfranchised, disempowered and dissatisfied people were the most junior appointments, while those who felt most empowered were the most senior appointments. However, even these senior staff indicated their authority and influence had significant constraints.

The cultures of different faculties within the same institution appear to have a marked impact and provided a compelling indication of the importance of leadership in the local area (most especially the importance of values and hence priorities) as all are working within the same institutional OLE.

The shared sense that educational issues are deemed by OLE leaders and decision-makers as far less important than technical or organisational ones is a further significant finding, as is the strong sense that the direct teaching academic voice is not heard to the extent it should be. With a minimal online presence established, the 'next step' and 'another phase' is how teaching and learning are optimised. It is encouraging that many instances of approaches to support innovative online teaching and learning can be cited and there are cases where significant investments are being made by universities that recognise the need to support the development of online teaching and learning beyond mandated basic compliance.

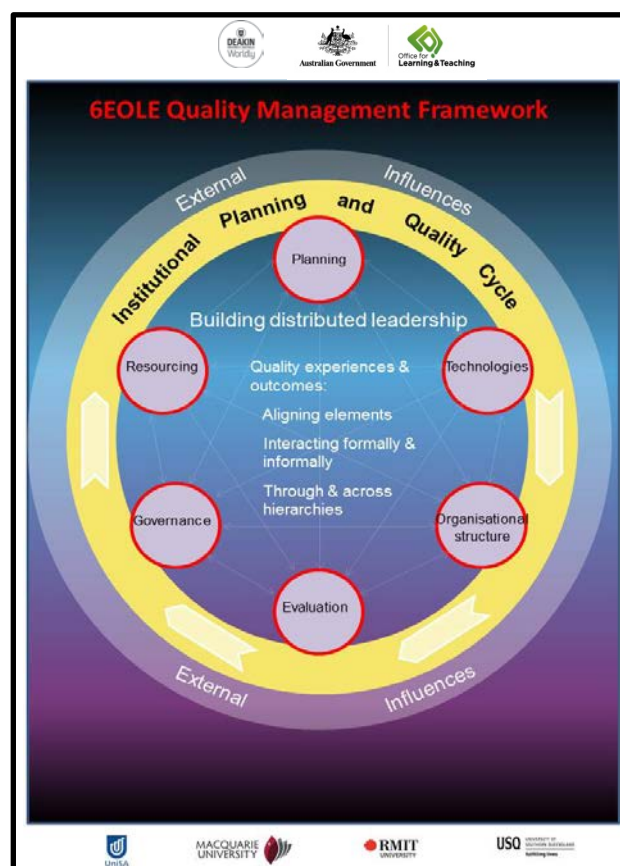
Good characteristics and practices checklist – Technology

Early enthusiasts/innovators should not be restricted by bureaucratic procedures but, before any technology becomes system wide, it is essential that the new technology is subjected to due rigor. The processes must enhance and not stifle.

Due diligence for technology mainstreaming	
Led by the 'right' people and involving the 'right' people – however determined	<input type="checkbox"/>
Establishment of a time frame which is realistic, staged and achievable	<input type="checkbox"/>
Audit of current situation / gap analysis should be undertaken to identify needs and purpose coupled with benchmarking and review of available literature	<input type="checkbox"/>
The criteria by which any judgment would be made must be clearly articulated and after consultation with all stakeholders with appropriate consideration of pedagogical, technical, financial and cultural (including access and equity) concerns	<input type="checkbox"/>
Product(s) should be examined and evaluation against fitness for purpose and strategic intent in the organisation using these criteria with a demonstrated organisational fit with the university's vision, strategies, plans and budget	<input type="checkbox"/>
Need for the assessment of alternatives and the development of exit strategy	<input type="checkbox"/>
Importance of due diligence or preferred product/supplier	<input type="checkbox"/>
Importance of the evaluation of the system: security, scalability, sustainability, capacity, robustness, agility and its ability to meet articulated pedagogical requirements	<input type="checkbox"/>
Need for risk analysis	<input type="checkbox"/>
Need for consideration of support (including training)	<input type="checkbox"/>
The desirability of trials within low-risk situations involving different audiences/constituencies	<input type="checkbox"/>
The importance of evaluating impact	<input type="checkbox"/>

Organisational structure

The focus of this element is on the establishment, coordination and delivery of valued services for enabling teaching staff and students to have the best possible experiences and outcomes from using their OLE. In this respect, the element is not referring to how institutions structure their decision-making processes relating to the selection, implementation and renewal of their OLEs. These matters are covered under the governance element. At the heart of the consideration of how best to provide such valued services is the staffing capabilities (knowledge, skills and attitudes) required to achieve the best possible outcomes for learning and teaching online. In addition, how many of the desired staffing capabilities, and their amount and organisational location, are likewise also important management concerns. Such services will be provided by many types of divisions and groups, notably teaching and learning centres (either centrally or locally placed, or some combination of both approaches), libraries, academic student services, media production centres (again possibly centrally or locally placed) and information technology divisions.



Focus group questions – Organisational structure

There are various factors that need to be considered by management in provisioning valued services:

- What staff capabilities are required to best support teaching staff in designing and operating OLEs cost-effectively?
- What staff capabilities are required to best support students getting the best learning experience and outcomes from the OLE?
- Who is best placed to assume authority and accept responsibility for the provisioning of the valued services?
- Where are the services best located to enable the best possible learning and teaching experiences and outcomes from the OLE?
- How is the value of service provision best evaluated and enhanced for the benefit of staff and students?

The third and fourth questions relate to the broader issue of the pros and cons of centralisation versus decentralisation of the control over staffing resources. Control should not be confused with the physical location of the provision of such services and the people who provide them. Control of staffing/servicing refers to formal budgetary authority and responsibility for the best use of these resources.

On this managerial decision point, four clear options are available:

1. Staffing/service provision is **centrally controlled** and those involved **centrally located** (although in such a configuration they may be allocated to work with specific faculty and other groups).
2. Staffing/service provision is **locally controlled** and those involved work in **local environments** (meaning that relevant staff members are appointed by and work within faculty environments).
3. Staffing/service provision is **centrally controlled**, but staff are placed in **various local faculty and** (for multi-campus institutions) **campus environments** where services are provided.
4. Staffing/service provision is **locally controlled**, but **at times staff can work together** to provide **strategically relevant services across the entire institution** (this seems more like a hypothetically possible option than one found in reality, although faculty secondments to, and joint appointments with, central teaching and learning groups do represent something of the flavour of this option in action).

With well-settled areas like library and IT services, the first option seems the norm.

This project, though, had a particular objective relating to the roles and activities of teaching and learning centres in contributing to the advancement of OLEs. Often such centres also provide associated media production services, and technical/functional support services for OLEs. Drawing from the findings of a previously completed ALTC project on the strategic leadership of teaching and learning centres in the sector (Holt & Palmer, 2010), the organisational configuration of such services has been problematic and highly changeable. Most often, a clear-cut option from the above list is not in evidence. Various hybrid service arrangements can be found characterised by aspects of both centralisation and decentralisation. Various combinations of strategic and operational service capability can be found both centrally and at local levels. Perhaps, if anything, a trend towards decentralisation can be discerned where staff/service provisioning is controlled and located at faculty and departmental levels. These trends require further sectoral investigation.

It would seem that the **pros of centralisation of staff/service** provisioning are the:

- ability to undertake institutional needs assessment and develop whole-of-institution responses
- ability to allocate resources across the institution to those areas of most need or identified as having greatest strategic importance
- ability to select, combine and deploy staffing/services in a coherent fashion into institutional priorities
- capacity to develop, recognise and reward highly valued expertise of critical mass
- capacity to provide career pathways for critical masses of professional staff

- ability to orchestrate institution-wide approaches to the evaluation and research of OLEs and to feed findings back into institutional governance systems
- capacity to support cost-effective, institution-wide online teaching and learning systems and applications, and improve their operation for all in the organisation
- capacity to stimulate and draw together OLE innovations, including their up-scaling and mainstreaming through various institution-wide forums and communities of practice.

The **pros of decentralisation of staff/service** provisioning appear to be that:

- staff capability is selected, deployed and developed to meet the specific OLE needs of particular professional fields and disciplines
- service provision is very close to the teaching staff and students, and can be used at the time key tasks need to be performed (often now with teaching staff having very little time for off-the-job professional development and training)
- staff can see the direct results of their efforts on the teaching and learning experience, and more easily change their service provision for changing needs
- formal leadership can better see the results of those who provide services locally in their domain of responsibility, and can see, support and reward good performance more easily
- stability of service provision can be better assured in a local domain of practice, where central operations may be more prone to regular, disruptive review and restructuring, often over protracted periods.

Given the growing complexity of service provisioning, as determined by specific institutional history, needs and senior leadership preferences, no model of best practice in the organisational structuring of services can be presented. Configurations are highly context specific. However, irrespective of specific organisational configurations, the following types of enabling staff capabilities seem to be required to advance the quality of OLEs:

- strategic knowledge of institutional mission, vision and strategies as related to OLEs
- ability to gather institutional intelligence on external factors and trends
- knowledge and skill in the design and operation of OLEs, as related to overall curriculum design and assessment approaches and practices
- knowledge and skill in the development, production and delivery of interactive multimedia learning resources
- knowledge and skill in educational technology project management and program coordination
- knowledge and skill in evaluating and researching OLEs
- professional development and training expertise
- client relationship management and networking expertise
- copyright expertise.

Organisational structures received little attention in the project’s data collection phases. Organisational structure, as an element in the Framework, was seen as relatively unimportant by ACOE representatives who completed the survey. This might be explained by the taken-for-granted rapidity of organisational restructures, and the general feeling that one structure might be just as good as another, and that structures per se are not decisive in determining organisational performance. Hence, good people can perform well in any reasonable structure of service provision. This is also supported by the ACOE benchmarks that choose not to make a value judgment on this area specifically; rather, the benchmark is placed at the level of the institution having ‘clear management structures identifying responsibilities and authorities’. One must assume that, if this benchmark is to be attained, there is also an alignment in existence with the institution’s strategic plan, as well as appropriate resources.

However, and not surprisingly, the element of resourcing was rated as being of the most importance by ACOE respondents, and one about which they were least satisfied. Resourcing may relate to investments in physical and virtual infrastructures. However, it is likely also to relate to the resourcing of areas charged with the responsibility of delivering services enabling the best experiences and outcomes from the OLE. Resourcing is inextricably linked with organisational structures of service provision. The best use of limited resources might also be undermined by structures of service provision of the hybrid central/local kind that lack clarity. Such clarity might be lacking in the defined purpose of what sits and is controlled centrally, and what sits and is controlled locally. This lack of clarity of purpose might impact negatively on roles, work patterns and, most importantly, productive work relationships between staff/services provisioned centrally and locally.

Good characteristics and practices checklist – Organisational structure

There needs to be:	
A clear established structure: whether central, local or hybrid	<input type="checkbox"/>
Clear purpose of groups in hybrid provision	<input type="checkbox"/>
Clear roles of staff in hybrid arrangements	<input type="checkbox"/>
Clear and appropriate skill sets of staff in hybrid arrangements	<input type="checkbox"/>
Appropriate work environments for staff members in various locations (central, local, campus based)	<input type="checkbox"/>
Clear relationships amongst staff in hybrid arrangements	<input type="checkbox"/>
Productive relationships amongst staff in hybrid arrangements	<input type="checkbox"/>
Well-aligned central and local formal leaders in the design and implementation of work programs	<input type="checkbox"/>
Well-developed communication channels to keep all staff informed	<input type="checkbox"/>
Staff who are well developed, recognised and rewarded for their performance in the context in which they are located	<input type="checkbox"/>
Staff who have appropriate career development pathways within the context in which they are located	<input type="checkbox"/>

Evaluation

There are many stakeholders and stakeholder interests in OLEs (see Holt, Rice, Smissen & Bowly, 2001). Naturally, such stakeholder interests affect the ways in which such parties evaluate the benefits of their OLE. Each set of interests carries its own self-evidently declared purpose for the evaluation. The purpose of OLE evaluation has to be framed in an inclusive and non-biased fashion. The central question to be addressed in positioning evaluation in the context of the quality management of OLEs is:

Does the online learning environment make a difference to teaching and learning at the institution? If the online environment does make a difference, in what ways, how, when and where are the differences experienced?

These key questions can be seen to be underpinned by a series of more specific questions representing a range of views of the various stakeholder representatives involved:

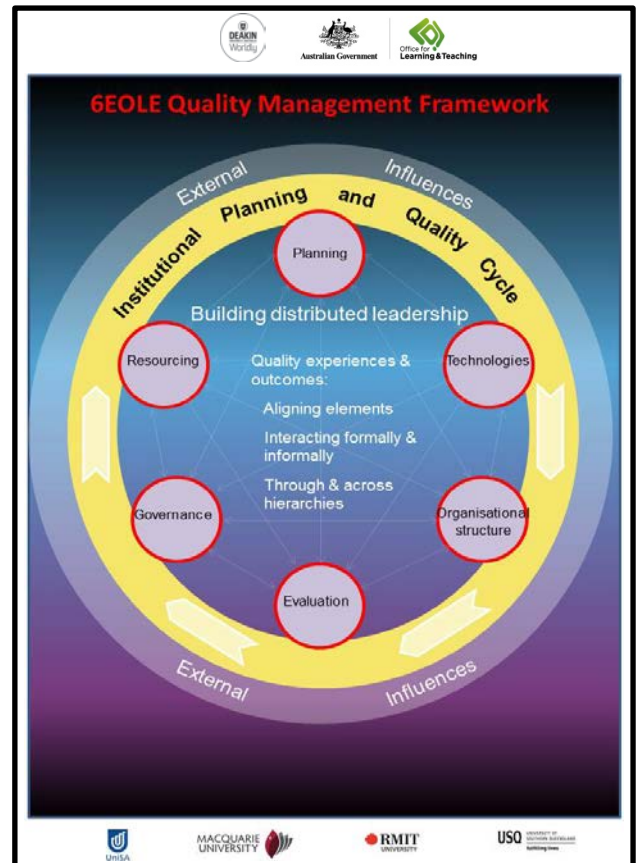
- Does the OLE enhance the quality of learning and teaching?
- Does the OLE enhance the efficiency of learning and teaching?
- Does the OLE enhance the satisfaction of learning and teaching?
- Does the OLE enhance accessibility to learning opportunities?
- Does the OLE enhance the administration and management of learning?
- Does the OLE impact academic workload (new compared to the old system)?
- Does the OLE provide opportunities for the advancement of higher education research/scholarship?

These questions may be seen to extend what is contained in the ACODE benchmarks. Evaluation is a central characteristic of each of the eight benchmarks and it is there to ensure a quality cycle is in place within institutions and that this is present across all the elements of that cycle. This notion is evident in the 6EOLE Quality Management Framework, which links evaluation to each of the other elements. Importantly, this is not limited to work within the institution, as evaluation also plays a very real role in mediating the many external factors at play around the effective deployment of institutional OLEs.

Despite this, deliberations amongst stakeholders around these questions can raise the issue of what is in and out of the scope of any planned evaluation at any point in the OLE's life cycle. Consensus needs to be reached after extensive consultation and deliberation.

Evaluation focus group activity

A focus group discussion (FGD) was facilitated with each of the five partner institutions in October–November 2011. Given the importance and problematic nature of evaluation that came out of the first project focus group, this FGD was entirely devoted to various aspects of 'Evaluation'.



Participants

46 of 66 (70%) invitees participated. Of these, 28 came from central areas and 18 from the faculties. Senior leadership were less well represented but, as this study concerned distributed leaders, this allowed the project to gain insights from those at other levels.

Focus group questions – Evaluation

- Who are the parties who need information to enhance the quality management of the institution's OLE?
- What information do these parties need and for what purposes?
- To what extent is this information being collected at the moment? What needs to be done to improve information collection?
- How, when and by whom is the information collected, analysed, integrated with other data sources and reported? Improvements?
- Through which formal and informal mechanisms is the information disseminated?
- How does dissemination impact decision-making for quality management improvements? In what ways could evidence-based decision-making be improved throughout the institution?

Conclusions

Although the project clearly is concerned with OLEs, there is evidence that, for a growing group, there is a reluctance/resistance to separating this from all university teaching and learning.

The context in which the focus group occurred is important. Universities will, inevitably, be at different stages of the leadership capacity building cycle. Where there appears to be a leadership void, there are indications of staff disengagement and disaffection as they seek direction.

Related to this is the issue of where institutions are situated on the development of an OLE continuum. Those where choices of key elements are still being made, or have very recently been made, are likely to express different evaluation concerns and objectives from those who have had core elements in place for more extended periods. Irrespective, discussion indicated that a mature approach to evaluation suggests it is part of a process of continuous improvement, culturally embedded and systematic and, while the timing may affect emphasis and focus, the nexus between infrastructure, the technologies and their implementation for learning and teaching is a constant.

Evaluation is seen by most as an imperative. How this is undertaken is variable within and across the five institutions. There is evidence of a fuller understanding of what constitutes effective evaluation.

There is also consensus that evaluation findings need to be appropriately disseminated and decision-making needs to be evidenced based. The strong impression is that this is not occurring, with 70% of participants giving low ratings and more than 25% of participants claiming this was not happening at all. From the documentation of what groups considered would form an 'optimally effective' process of evaluation of OLEs, it is apparent that further discussion of this nature among all those involved would be generative in moving this agenda forwards. The assessment of the extent to which different elements of this process were being met suggests a greater shared commitment is necessary and that leadership should ensure that evaluation of OLEs is monitored. Given the different understandings at times expressed between central and faculty groups, the need for greater communication is also apparent.

Good characteristics and practices – Evaluation

Given the complexities involved, a simple checklist of factors to consider in actioning evaluation is not presented. Instead, key questions surrounding institutional approaches to evaluation in managing the quality of OLEs are explored.

What is the purpose of the evaluation?

As referred to above, the purpose of any new OLE evaluation can be clear; that is, clear to those who have a particular view about the benefits to be had from any OLE. The problem is that a wide range of views are in force, held by parties who might wish to draw others towards their points of view based on their sense of importance and authority. There are those who have broader and more limited benefits in mind, those who have interests in some benefits but not others, and those who see benefits as realisable sooner rather than later, or who, in fact, require that such benefits are realised sooner than later. Some parties are open to unanticipated benefits (and, indeed, costs), while others are fixed on some type of defined benefits plan. Limited defined benefits call for limited and closed methods of data collection; more open and expansive views of benefits yet to be imagined call for a greater diversity of methods of both open and closed form. To work through these many and possibly conflicted views is not an easy exercise. We see some central organisational group, like a teaching and learning centre, as being best placed to help facilitate and coordinate some overall institutional plan of action.

What types of evaluation should be conducted? How should findings be reported?

It can be useful with any major changes to the institution's OLE that baseline data is collected on staff and students' views on the current environment before it is replaced. This surveying can be repeated in the following years as parties move into a new or newer environment. Institutional surveying can focus on the importance and satisfaction of various features and functions constituting the OLE. Additionally, surveying items can relate to frequency of use. This can be seen as a proxy measure of student engagement, an agenda popularised in recent years through the advent of the Australasian Survey of Student Engagement (AUSSE). Student engagement relates to the time and effort devoted to purposively designed tasks, and frequency of use is a helpful measure of how much time students spend using various technology features. Surveying for students can also cover their perceptions of support for the use of an OLE and, for staff, the adequacy of professional development and training opportunities in using the OLE to best effect. Institutional surveys should receive university ethics committee approval. It is recommended that, as much as possible, all data collection methods go through a rigorous process of independent ethics review to ensure they are technically and ethically sound.

Comparison of student data from OLE evaluation survey 2011 and 2012

The following provides an illustrative example of one approach to the analysis and reporting of institutional OLE evaluation data. At one university, a new LMS has been implemented. This LMS forms the central infrastructure for that university's OLE. As one element of the university's LMS implementation evaluation plan, it was identified as important to survey student and staff perceptions and use of the new OLE. The survey of students and staff asked respondents to indicate their perceptions and use of elements of the LMS that underpins the OLE, as well as their perceptions and use of the associated technologies that support the LMS and form an additional part of the OLE. This summary report draws on a subset of the findings from the student OLE evaluation surveys conducted in 2011 (during the final period of full-scale use of the previous LMS) and 2012 (when the new LMS was fully operational). The 2012 staff and student survey instruments are included in Appendix A.

As an example, this section outlines the demographic information relating to the 2012 student survey respondent group. The target respondent group was university coursework students, other than students commencing at the beginning of 2012. In all, 24,805 email invitations were successfully sent (i.e. did not bounce) to the student group. The following table documents the responses received.

Action	Number	Response rate
Commenced the survey	1920	7.74%
Completed the survey	1710	6.89%

Table 1: Responses received to the OLE evaluation survey

The survey system saves responses after each page is complete, so some partially completed responses exist. In the following sections, the maximum applicable number of useful responses is used, and that number indicated. Some summary demographic information is known about both the target student population and the respondent sample group. The following table presents a comparison of the population and sample groups (based on 1710 fully completed survey responses) on those demographic dimensions.

Demographic	Population		Sample	
	Number	%	Number	%
Gender				
Female	14863	59.9%	1206	70.5%
Male	9942	40.1%	504	29.5%
Faculty				
Arts/Ed †	7769.5	31.3%	521	30.5%
Bus/Law	8706	35.1%	455	26.6%
Health	4981	20.1%	449	26.3%
Sci/Tech †	3348.5	13.5%	267	15.6%
Other ‡	–	–	18	1.1%
Campus §				
Campus A	5195	12.5%	244	14.3%
Campus B	2513	6.0%	124	7.3%
Campus C	20774	49.8%	718	42.0%
Campus D	1250	3.0%	75	4.4%
Off campus	11956	28.7%	549	32.1%
Average enrolment duration	2.22 (1.63) years		2.33 (1.48) years	

† The population group contains combined degree enrolments that are assigned pro rata to the faculties 'owning' each of the combined degrees; hence the fractional data.

‡ Respondents were given the option to nominate 'Other' for their home faculty, but the population data does not contain this option.

§ Campus location was not available in the population data – here the general 2010 student enrolment campus location data are used as a comparison.

Standard deviation given in parenthesis.

Table 2: Demographics dimensions of responses received

While the overall response rate is low, both the fact that the respondent sample group does not depart radically from the overall target student population on a number of demographic dimensions, and the relatively large absolute number of respondents gives some assurance that the respondent sample responses are likely to be representative of the overall population. Similar demographic results were obtained in 2011, when 1322 fully completed surveys were received from 22,760 invitations sent (5.81% response rate), and a good match on characteristics of gender, faculty, campus and average enrolment duration.

For each of the 15 core LMS functions (items 1–15) and 5 supporting technologies (items 16–20) listed below, respondents were asked to indicate:

- how **important** it is to the success of your studies
- how **satisfied** you are with it.

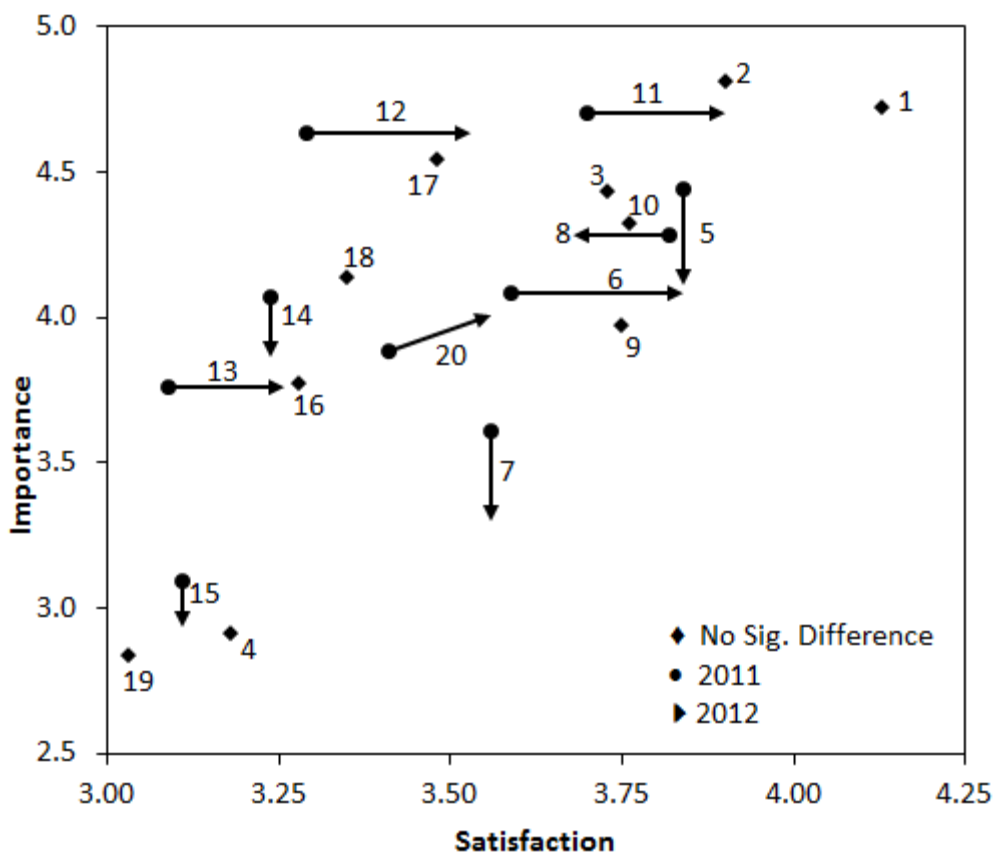
Importance was rated on a scale of 1–5 where 1 = not important, 3 = neutral and 5 = very

important. Satisfaction was rated on a scale of 1–5 where 1 = not satisfied, 3 = neutral and 5 = very satisfied. For each of the 3 dimensions, a ‘not applicable’ response option was also available. The table below presents the mean ratings obtained in 2012 for each function, with the standard deviation in parenthesis.

Function	Importance	Satisfaction
1. Accessing unit guide and other unit information	4.72 (0.60)	4.10 (0.92)
2. Accessing unit lecture, tutorial or lab notes etc.	4.83 (0.51)	3.88 (1.08)
3. Interacting with unit learning resources	4.44 (0.78)	3.70 (1.04)
4. Using the unit calendar	2.93 (1.36)	3.21 (1.08)
5. Reading unit news announcements	4.11 (1.01)	3.81 (1.01)
6. Contacting teachers via email link	4.09 (1.12)	3.84 (1.02)
7. Contacting students via email link	3.30 (1.31)	3.53 (0.98)
8. Reading contributions to online discussions	4.26 (0.90)	3.68 (1.16)
9. Contributing to online discussions	4.01 (1.04)	3.68 (1.06)
10. Completing online quizzes/tests	4.36 (0.98)	3.79 (1.05)
11. Submitting assignments via Dropbox	4.70 (0.66)	3.90 (1.14)
12. Receiving feedback on assignments via Dropbox	4.60 (0.75)	3.53 (1.20)
13. Working collaboratively in a group	3.82 (1.18)	3.26 (1.10)
14. Reviewing unit progress with ‘View my progress’	3.86 (1.10)	3.34 (1.10)
15. Using the ePortfolio	2.93 (1.32)	3.12 (0.97)
16. eLive (Elluminate Live) communication session	3.75 (1.21)	3.35 (1.09)
17. iLecture (or Echo360 trial) lecture recording	4.47 (0.89)	3.50 (1.20)
18. Other iLecture recording (e.g. podcasts)	4.22 (1.01)	3.47 (1.12)
19. Social software tools (e.g. Drupal, MediaWiki, Gallery2)	2.71 (1.29)	3.11 (0.86)
20. Turnitin plagiarism detection / originality assessment	4.01 (1.10)	3.56 (1.08)

Table 3: Mean ratings obtained in 2012 for each function

Similar data were collected in 2011. The following chart visualises the statistically significant differences between the mean importance and satisfaction ratings reported by students in 2011 and 2012. A definitive indication of the significance of the differences between the mean ratings for an item between the two survey years is obtained from an ANOVA test using mean item rating as the dependent variable and survey year as the grouping variable. A requirement for the ANOVA test is that the variation of the mean rating be similar in both survey years. Where Levene’s test of homogeneity of variance failed for survey items, a robust ANOVA test using the Welch test statistic was performed instead. The level of statistical significance used was $p < 0.01$. A diamond marker was used where there was no significant difference between years in the mean ratings of importance and satisfaction for a function, with the marker indicating the 2011 mean ratings. Where there was a significant difference between years in the mean ratings of either importance or satisfaction, a vector is shown to visualise the difference; a circle marker was used for the 2011 data and an arrow was used for the 2012 data. Where the mean rating for importance only was significantly different, a vertical vector was used, with the 2011 mean satisfaction rating used for horizontal position. Where the mean rating for satisfaction only was significantly different, a horizontal vector was used, with the 2011 mean importance rating used for vertical position. Where the mean rating for both importance and satisfaction were significantly different (only observed for item 20), a diagonal vector was used.



- | | |
|---|---|
| 1. Accessing unit guide and other unit information | 11. Submitting assignments via Dropbox |
| 2. Accessing unit lecture, tutorial or lab notes etc. | 12. Receiving feedback on assignments via Dropbox |
| 3. Interacting with unit learning resources | 13. Working collaboratively in a group |
| 4. Using the unit calendar | 14. Reviewing unit progress with 'View my progress' |
| 5. Reading unit news announcements | 15. Using the ePortfolio |
| 6. Contacting teachers via email link | 16. eLive (Elluminate Live) communication session |
| 7. Contacting students via email link | 17. iLecture (or Echo360 trial) lecture recording |
| 8. Reading contributions to online discussions | 18. Other iLecture recording (e.g. podcasts) |
| 9. Contributing to online discussions | 19. Social software tools (e.g. Drupal, MediaWiki and Gallery2) |
| 10. Completing online quizzes/tests | 20. Turnitin plagiarism detection/originality assessment. |

Figure 2 Statistically significant differences between the mean importance and satisfaction ratings reported by students in 2011 and 2012

The period 2011–2012 represented a significant change in LMS technology at the university, including changing LMS vendors and moving from a legacy system to a current generation LMS, so it is interesting to observe the changes in the mean importance and satisfaction ratings given by students to various LMS functions and associated supporting technologies. These quantitative rating results are supported by a large number of open-ended comments also collected by the OLE evaluation surveys in both years, and this qualitative data provides insights into understanding the changes in mean rating observed in the chart above. The results reported and visualised here provide an example of how OLE evaluation data can be analysed and reported.

Such survey approaches, as illustrated above, may be considered 'product-centric'. Questions of how features and technologies are selected, integrated and used by teaching staff may not be central to staff survey design, unless such information is volunteered through open-ended questions on best aspects of an OLE, and those that might need improvement. A parallel argument can be made about the design of any institutional student survey. It again may be seen as product-centric. It may not directly examine the student experience of engaging with their overall OLE. Ultimately, any type of data collection method will have its limitations. Institutional surveying tends to respond to senior leaders' concerns to find out whether their OLE is well used and well valued; that is, is there an adequate return on the educational technology investment made by the institution?

Senior leadership, understandably, want and need evidence to, at the very least, know whether good decisions have been made, and that the OLE is standing the institution in good stead over time. Exploring the more nuanced uses of any OLE needs to be considered at faculty, program and discipline levels. In this area, course/unit chairs can be asked, in interview, a range of questions covering:

- how they use their OLE
- how easy it might be to use their environment for themselves as teachers and for their students
- whether they used it differently to their previous environment
- whether it has helped to enhance the quality of teaching and learning
- whether administration and management is easier using the new environment compared to the previous one
- along with identifying elements of their OLE, which element might have the biggest impact on enhancing learning
- ideas on how the OLE might allow staff to change their teaching over time
- improvements that could be made to the environment
- any additional support or training that would be beneficial.

Students operating in a new or newer OLE can be surveyed with closed-ended questions covering ease of access and use of various elements of any new environment in various modes/places, and open-ended questions covering whether the new system enhanced learning and was more reliable, along with identifying best aspects of the new environment, areas needing improvement, ideas on what the new/newer environment could do but which it can't do currently, and views on any additional training/support needed to use the OLE better.

Finally, apart from transmission of learning resources and facilitating learning interactions, one of the primary functions claimed for an LMS is the provision of evaluation information (White & Larusson, 2010). Most commercial LMSs have some form of built-in analytic reporting capacity that logs and tracks certain types of user activity, typically including number of logins, duration of logins, access to learning resources, communications and other interactions, completion of learning tasks and so on. (Dawson, Heathcote & Poole, 2010). This recorded 'student tracking' data provides system administrators and educators with potentially valuable information for evaluation of aspects of performance of the LMS (Mazza & Botturi, 2007). For example, tracking data on student use of an online discussion space was combined with other information and used to reveal distinct patterns of usage of the discussion space and which types of student posts were positively associated with desired learning outcomes (Palmer, Holt & Bray, 2008). This will be another layer of data analysis in our own institution's approach.

Who needs to approve evaluation?

This is not a trivial question, as large-scale institutional surveying of OLEs usually needs to fit within an annual schedule of surveys of students and staff as approved by the university's senior executive (and as organised possibly through a university's planning unit which might be responsible for all institutional data collection). Surveying of student and staff member

views about various aspects of the institution's OLE must sit comfortably with an institution's ongoing system of student surveying on units and the perceived quality of teaching. External student surveying also needs to be taken into account. The surveying landscape can be very crowded and students placed in danger of being over-surveyed, thus degrading survey responses. Different surveys running concurrently can be frowned upon. To commit students and staff to a further survey on the OLE, an institution must see its OLE as being strategically very important. It must wholeheartedly commit to the importance of collecting and using institution-wide data for improved decision-making and improved practice. More practically, new surveying must be conducted during gap periods in the annual surveying calendar. The surveying, though, must make sense in terms of its timing and use. These logistical matters cannot be underestimated. The best designed surveying will count for nothing if the surveys themselves can find no room in crowded institutional survey schedules. Enhancing the student experience must be central to the imperative to ask for and secure approval for major new data collection methods. This must be strongly advocated, and senior executive sponsorship is essential. The argument will not necessarily sell itself from afar. An added impetus for making such requests and having them seriously considered at the highest level might lie in being actively involved in a relevant nationally funded OLT-type project where evidence gathering is a major focus of attention.

Who needs to accept responsibility for funding and conducting evaluation?

One might expect that any new or newer OLE would make allowance for costs involved in carrying out an institutional evaluation plan. Those who manage such budgets can quite reasonably expect an upfront cost estimate. However, providing such upfront estimates is difficult as evaluation planning can be a very fluid exercise, with an agenda that is pushed and pulled between different parties with different information needs, which in turn may be much more or less expansive in nature. Cost estimates can be further complicated by expectations that it is the 'core business' of certain established institutional groups to undertake such work largely from their own resources. These might range from the absolute minimalist stance of using limited currently collected data to opening up whole new lines of rich data collection. Teaching and learning centres can be reasonably asked to make a significant contribution to evaluation activities, but they may not be in a position to run all necessary institutional surveying.

The added challenge in costing and conducting evaluation can relate to the devolved nature of any new OLE implementation, where faculties might be allocated significant amounts of funding to support local developments. Their own transition plans can contain local evaluation commitments and associated funding allocations. This raises the issue of the need to be clear about what is being done centrally and what is being executed locally under such a scenario. It might be reasonably accepted that institutional surveying lies in the province of a teaching and learning centre. Equally, in an environment with strong faculty-based academic development resourcing, it could be reasonably assumed that the lead for research on the alignment of any new OLE with program or discipline curricula might come locally. However, there are activities which fall in between these two ends of the continuum that can be seen as overlapping and possibly disputed territory amongst stakeholders. This can particularly be the case with planning the evaluation of any piloting of a new OLE, and in determining what data should be collected consistently across all pilot units and what data should be collected based on particular faculties' specific interests.

How long should the evaluation task be sustained?

It could be reasonably expected that planning for special evaluation activities be undertaken over a three-year period for any substantially new OLE. Special activity relating to the evaluation of any pilot OLE unit program may only be required in the first year of implementation. It can be speculated amongst stakeholders that the benefits of some of the major new features of a new OLE may not materialise in full until well down the track. At a point, special evaluation activity needs to give way to routine and ongoing data collection, which integrates with the institution's continuous quality improvement processes. We see, though, in the longer term, greater opportunities for specialist research projects on various aspects of the impact of any new OLE, particularly with the gradual uptake of significant new features. Here, renewed impetus might be given to both specialist evaluation and research projects through teaching and learning centres focusing on research, scholarship,

development and practice improvement.

How can evaluation best inform decision-making and improve practice?

Leadership of OLEs is embedded at many levels of the management hierarchy and is exerted informally by leading edge users of any new system. Data collected at different levels for different stakeholders must feed into decision-making through myriad structures and mechanisms. Higher-level data collection must feed into the institution's OLE governance structure as related to standing committees of academic boards and IT planning/budgeting committees. Institutional data showing breakdowns by faculty needs to flow into faculty-based teaching/learning committees and their deliberations (at both faculty and possibly school/departmental levels). More nuanced program and unit data must feed into the leadership of courses, disciplines, units and their teaching teams. The above 'feed in' mechanisms relate to sharing and deliberating on data within the vertical discipline-based hierarchies that characterise universities' organisational design (see Mintzberg's [1979] characterisation of universities as 'professional bureaucracies'). The challenge remains as to how to facilitate sharing of experiences and useful practices across faculty, departmental and discipline boundaries; that is, how to promote forms of horizontal leadership and learning. This is where the expertise of leading edge or pioneering academic teachers comes to the fore. In the name of the learning organisation (Senge, 1990), opportunities must be orchestrated to enable such boundary riding. Teaching and learning centres can provide these boundary straddling opportunities through forums, promotion through communities of practice and annual conferences.

The overall evaluation orientation

Educational institutions cannot conduct large-scale controlled experimental research on the utility of different OLEs, or any other significant educational technology for that matter, for a host of pragmatic and ethical reasons. The practical issues range across the financial, legal and logistical. Few educational technology studies do, in fact, reach purportedly high scientific standards at any rate (see e.g. meta-analysis of online learning studies reported by Means et al., 2009). For example, no university could afford to run in parallel two LMSs to test their comparative utility, nor could they afford to randomly deny an LMS to one student cohort to test its efficacy in relation to those using it in a treatment group, certainly not if the control group constituted distance education students where access and equity considerations apply. Once decisions are made on large-scale, enterprise-wide investments in things like LMSs, the institution is involved in long-term contractual commitments. There is no way of easily going back. This applies equally to the human resources that need to be developed over significant periods to reap the best outcomes from any technology deployed. We concur that the best research, scholarship, evidence and experience needs to be applied in educational technology decision-making, deployment and use; but all of this is indicative, not definitive, in nature. Professional judgment making must come to the fore.

People cannot be or remain neutral players. Evaluation must have a strong formative, developmental orientation. It must be aimed at getting the very most involved and deriving the very best from what can be obtained from the investments made. Here, we cite the work of Guba and Lincoln (1989), who have explained and critiqued four generations of evaluation. In critiquing the first three generations of evaluation that revolved around measurement, description and judgment, they argue for the need for a new paradigm, 'fourth generation evaluation'. The authors emphasise that evaluation is not about revealing truths. They see evaluation as enabling stakeholder constructions, with negotiation to shared and more sophisticated understandings being the key. Courses of action are, therefore, determined through a process of negotiation between stakeholders, and are responsive to their needs. It is not easy to conduct a fourth generation evaluation as related to OLEs. And yet the spirit of this paradigm is laudable and in some ways desperately required to work through the maze of stakeholder needs and expectations.

Of equal usefulness is the movement around design-based research (Design-Based Research Collective [DBRC], 2003). The DBRC argues that design-based research has five characteristics:

1. The goals of designing learning environments and theory development are interrelated

2. Research and development occur 'through continuous cycles of design, enactment, analysis and redesign'
3. Design research 'must lead to sharable theories that help communicate relevant implications to practitioners and other educational designers'
4. Research must explain the way 'designs function in authentic settings'
5. The development of these explanations uses methods 'that can document and connect processes of enactment to outcomes of interest'. (DBRC, 2003, p. 5.)

Design-based research sees research and development working in concert through a commitment to ongoing action and evaluation. It seems like a compelling approach to improving teaching practices and learning experiences over time with the advent of new LMSs, and OLEs more generally. The sorts of questions that could be addressed by design-based research include:

- What forms of online teaching support current pedagogy?
- What forms of online teaching enhance student learning?
- Do these differ for different learning areas and fields of study?
- What are the pedagogical principles on which online teaching is based? Are online offerings equitable?
- Do online offerings cater for cultural diversity among students?
- What forms of staff development will best ensure the maximum possible realisation of the pedagogical potential of online teaching and learning?
- How does online teaching and learning relate to promoting student-centred and lifelong learning?

Governance

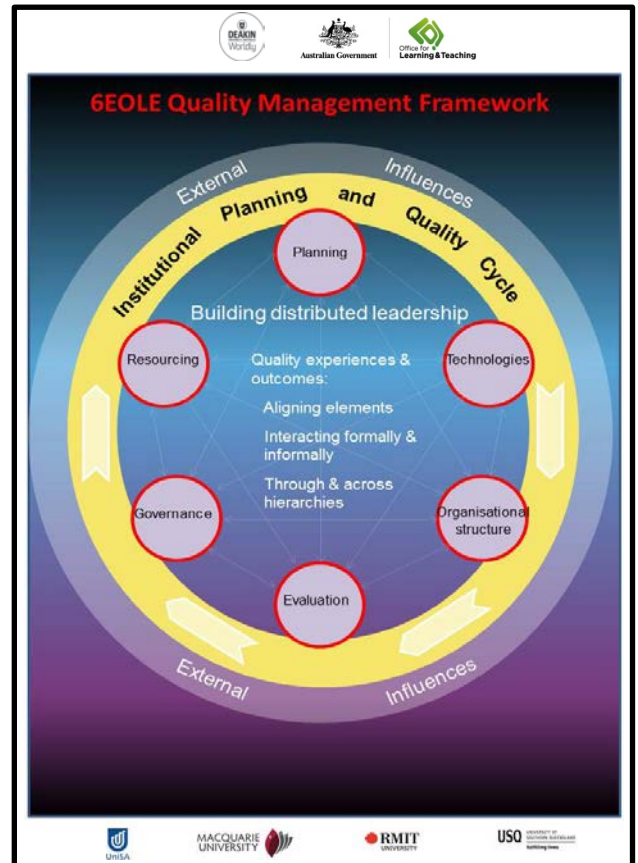
The ACODE benchmarks (2007) were the first major attempt, in an Australian context, to bring a consistent framework to the use of e-Learning in our institutions. More specifically, the first of these benchmarks relates directly to policy and governance structures around the use of technologies to support learning and teaching. The good practice statement that supports this benchmark states:

The institution has established well-understood governance mechanisms and policies that guide the selection, implementation, utilisation/deployment, and evaluation of technologies to support learning and teaching.

However, from this project's perspective the ACODE benchmarks, although an excellent tool, do not go quite far enough in this area and to some degree it is not their role to do so, as each institution will put its own interpretation on the above statement. But therein lies the problem, for in attempting to cater for a wide variety of experiences there is an inherent weakness in the way this statement can be interpreted. In part, the role of this project then has been to strengthen this tenuous link and provide a suggested position that institutions may adopt to help them provide a comprehensive approach to the governance and policy-making structures that relate to their OLEs and associated systems.

Importantly, the 6EOLE Quality Management Framework provides the basis for this proposed approach. Governance of an institution's OLE must have all five of the other elements of the framework, not just present, but active in the mix; governance needs to be actively engaging with planning and aligned with the organisational structure, ensuring resourcing is available, ensuring evaluation is implemented, and ensuring that the institution has a holistic understanding of the technologies themselves within the context of the bigger picture.

Building distributed leadership capacity highlights the importance of empowering those at different levels of the organisation to each play their part in the leadership of the institution's OLE. This empowerment is typically done by giving each stakeholder a voice, via the governance structures established within the institution. However, it should be noted that governance around the OLE should not be any different to that of other systems within the institution, such as the human resources system, the finance system, the student



management system (and so on), all of which would benefit from a distributed leadership approach.

But this discussion is limited to the governance of the institution's OLE, with the assumption that the principles outlined here may also be applied to other systems. It appears reasonably consistent across most universities in Australia that there are two main governance bodies that sit beneath the University Council: the Academic Board/Senate for academic policy and strategy; and the Vice-Chancellor's Committee that deals with corporate strategy, funding and policy. Typically, these committees have major sub-committees that report to them (see Figure 3). In the case of OLEs, these would be something like the Learning and Teaching Committee that reports to the Academic Board and, on the other side of the equation, some form of ICT governance/strategy committee reporting to the VC's committee. Importantly, for the governance of OLEs there is then a committee that encompasses both sides of the coin. This committee has a dual reporting line that provides for decisions to be made about funding and strategy issues, as well as academic policy issues associated with the use of these systems. For the purposes of this discussion, this committee is called the OLE systems group (see Figure 3).

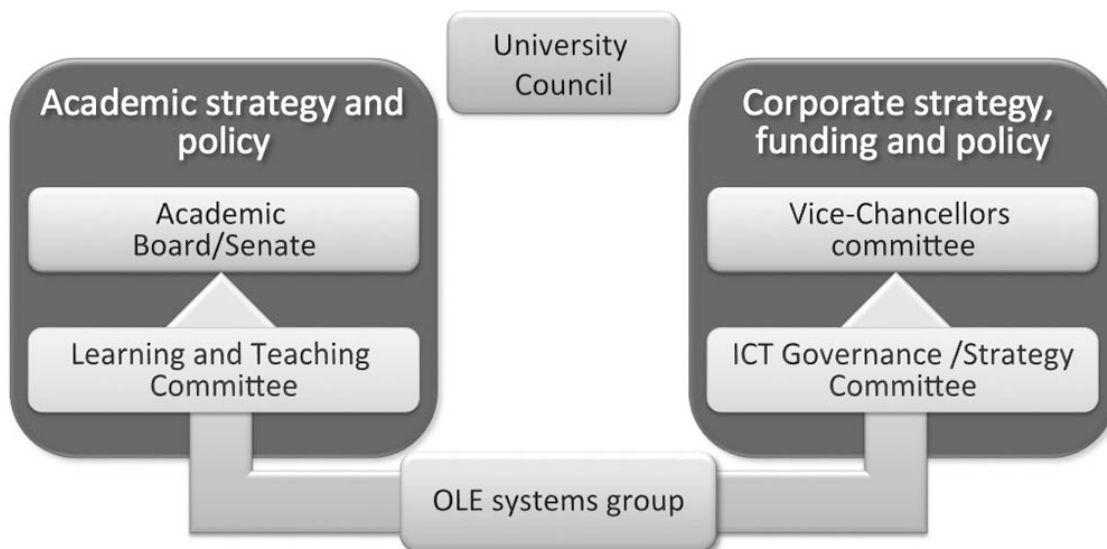


Figure 3 University committee structure related to OLEs

The institution needs to be able to clearly define the status of all the technologies underpinning the OLE that are used by staff to support learning and teaching (or other areas) and that this is mediated by the OLE systems group (negotiated) for the institution.

This mediating role of the OLE systems group not only helps the ICT group have some firm boundaries in relation to its funding (aligned with a planning roadmap), but it also allows faculties to understand what level of support may be legitimately expected from the central ICT and learning support sections (possibly also devolved). This may be done by way of a service level agreement (SLA), or simply by being very explicit on the university support website about these expectations, particularly where this relates to systems that may not be seen as 'core'.

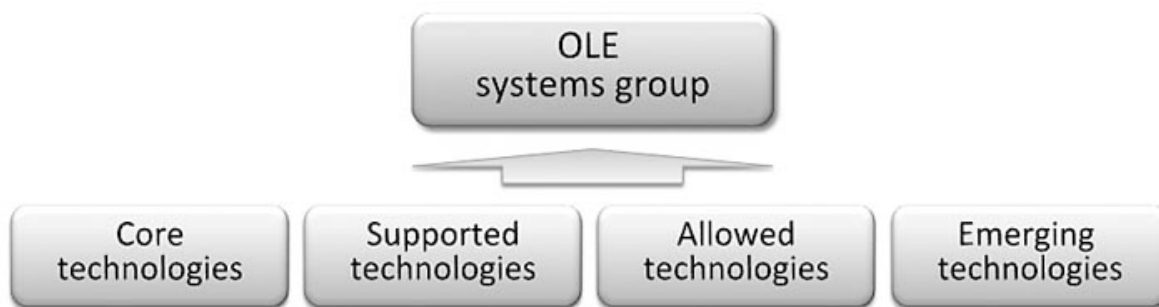


Figure 4 Categories of OLE technologies

To assist an institution to place some form of framework around their particular OLE, the following four categories (see also Figure 4) of technologies and their associated level of support are offered. Categorising the institution's systems in the following way may also assist the OLE systems group to define its responsibilities and boundaries:

1. **Core technologies:** These are systems that are used to support the core learning and teaching activity of the institution. Typically, systems that may be included in this category would be the LMS, ePortfolio, virtual classrooms, lecture recording, repositories, and so on. These systems would be fully funded and supported by the central ICT and learning support services. There would also be centralised professional development and training provided to help staff make the best use of these systems.
2. **Supported technologies:** These are systems used by discipline groups (as opposed to the whole university) for activities associated with a core system. These systems are typically funded by the department or school, but the support for running these systems on the university's infrastructure is provided by the central ICT and learning support services. There is usually no centralised professional development and training provided.
3. **Allowed technologies:** These are technologies that run on systems outside the university's main ICT infrastructure. This may be on a server in a school or out in the cloud. For example, the use of Skype, Facebook, 3D immersive worlds like Second Life, and so on. Typically, the only role the central ICT service provides is to allow these systems into the university domain (through the firewalls). There is usually no support for these systems offered by the central ICT and learning support services other than, possibly, some information made available on the support website.
4. **Emerging technologies:** These are systems that the university has agreed to trial with the understanding that they may become a supported or core technology. Typically, these systems are housed on university infrastructure and some limited support is offered by the central ICT and learning support services. It is helpful in situations like this that the institution has an agreed innovation pipeline for these systems. That is, an agreed approach as to how to move a system from being trialled to being included in the list of systems to be used by all staff. Importantly, how staff get trained in the use of these systems needs consideration.

An inevitable consequence of rapid technological change is the need for universities to manage the life cycle of their technologies, and specifically the life cycle of high-utilisation core technologies. From the overall staff user perspective, the core technologies are the high-investment technologies, and often attract significant resistance to change. Maintenance of a positive and engaged staff perspective on the evolving suite of production technologies can be facilitated by open disclosure and consultation on the systematic life

cycle management of the core technologies. In particular, a focus on the rationale for the introduction of specific emerging technologies and the removal of redundant core technologies can assist in maintaining a strong culture of use. As selected emerging technologies transition to core technologies a clear and widely communicated life cycle management plan enables staff who are adopters of the emerging technologies to transition to a distributed leadership role with the newly introduced core technology. Such an OLE life cycle management tool is presented below.

Educational technology landscape and road map

Purpose: To provide a common and overarching view of the current and future direction of enterprise technologies.

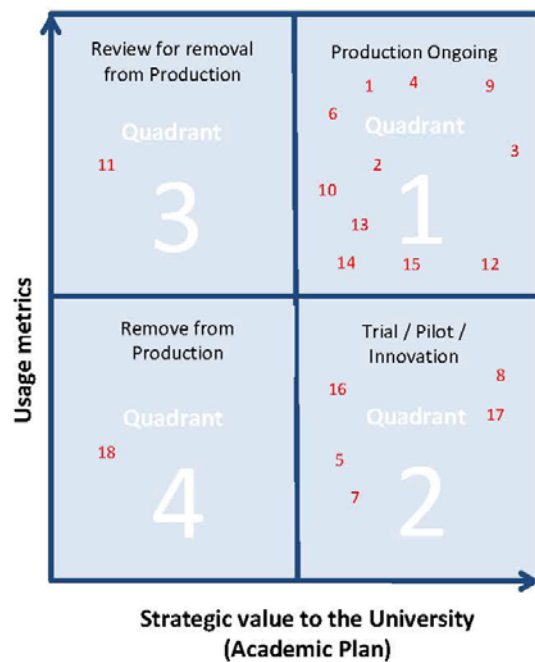
Principles:

- Systematic evaluation and evidence supports planning and process improvements in the effective adoption and use of educational technologies.
- The creative application of educational technologies lead to innovative and new pedagogical approaches.

Example

Online presentation: staff and student global community access
1 Mail, calendar, docs, sites, drive
Learning management system
2 Virtual classroom
3 Publishing/collaboration
4 Originality verification
5 Lecture capture
6 Desktop media capture
7 Interactive polling
8 Personal learning environment
9 Course management system
10 Collaboration
11 Remote laboratories
12 Quiz and test tool
13 General L&T web server
14 Learning Content Management System
15 Student/staff translation server
16 Student portal
Course Guides
Student access to learning resources
17 Desktop / Office environment
18 Assessment Management Software
Mobile and Connected: utilisation where possible of a mobile presentation layer
Face to Face: – staff and student on campus
On campus Collaborative environment
Personal response systems – interactive polling
AV standards
Classroom interaction
Classroom management
Interactive group collaboration
Open to the public – Social networking presence
University website
Distribution of audio and video content – iTunesU
Social networking – Facebook, LinkedIn /Google /Twitter
Virtual world + Social networking – 2ndLife
Mobile and Connected: utilisation where possible of a mobile presentation layer

Educational Technology Lifecycle Quadrant



Technologies cycle between the Quadrants as they progress through their lifecycle in the University's Educational Technology suite

Good characteristics and practices checklist – Governance

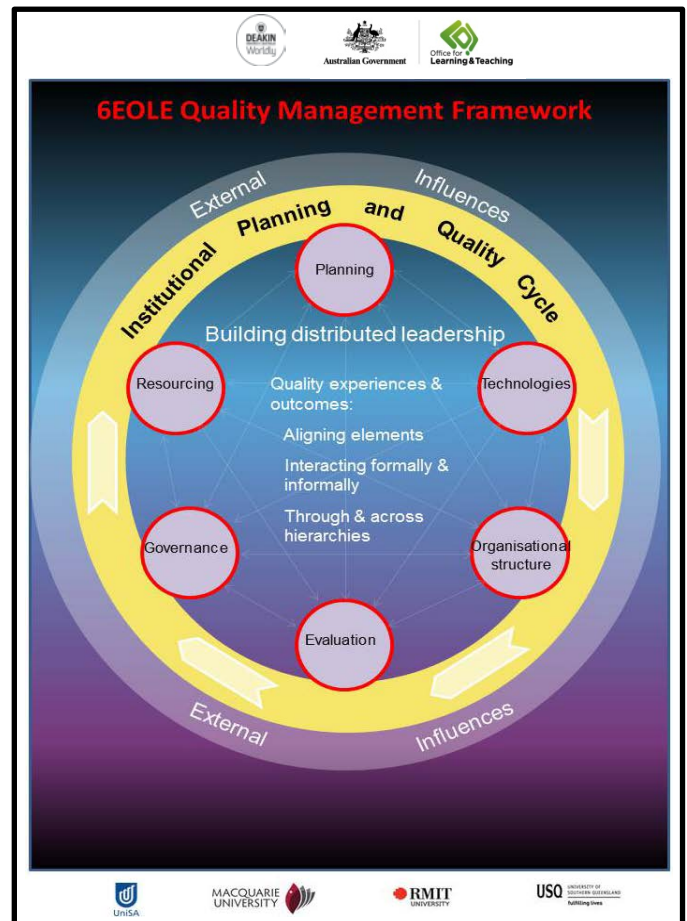
There needs to be:	
Clearly defined decision pathways for academic strategy and policy relating to OLEs	<input type="checkbox"/>
Clearly defined decision pathways for strategic policy and funding relating to OLEs	<input type="checkbox"/>
In existence, a committee that oversees the deployment of OLEs in the institution	<input type="checkbox"/>
Good working relationships established between the learning support services and the ICT services	<input type="checkbox"/>
An innovation pipeline established for the institution	<input type="checkbox"/>
A method for classifying the status of a system or technology	<input type="checkbox"/>
An SLA or clearly defined parameters around supporting the different categories of technologies constituting the OLE	<input type="checkbox"/>

Resourcing

As previously indicated, one of the research activities undertaken for this project included an online survey of ACODE institutional representatives at Australasian universities (conducted during March 2012). The survey included items seeking respondents' perceptions of the importance of and satisfaction with the six elements of the proposed Quality Management Framework. For this section of the survey, responses were received from 29 of the 46 ACODE institutional representatives. Analysis of the respondent demographic information revealed that the respondent group was a representative of the wider university sector in Australasia. Of the six framework elements, 'Resourcing' received the highest mean rating of importance, and equal lowest mean rating of satisfaction. Additionally, this was a common response from all types of higher education institutions.

It is perhaps not surprising that respondents considered resourcing of OLEs to be important, and that, on average, they were less than satisfied with the resourcing for their OLE – it is a truism that everyone would always like more money, equipment and people for the development and operation of systems in higher education. While it may be self-evident that resources are a key enabler of OLEs, it is not immediately clear from this survey result why respondents were uniformly dissatisfied with current levels of resourcing. It might be due to fundamentally inadequate resourcing of OLEs to meet the expectations of the organisation (Kenny, 2004). Or perhaps it is related to the relatively common observation that, even with the application of significant resources over a long period, OLEs and related technologies have often appeared to have limited impact on staff teaching and student learning (Mott & Wiley, 2009; Selwyn, 2007).

An additional element of the survey asked respondents to indicate their perceptions of importance of pair-wise interactions between the six elements of the framework. The highest rated pair-wise element interactions were for resourcing and planning, and for resourcing and technologies. If all of the pair-wise mean importance ratings associated with a particular framework element were summed, then the highest composite importance value was obtained for resourcing. Generally speaking, resourcing was seen to be the most important element of the framework, and the element with the most influence on other elements of the framework.



Good characteristics and practices checklist – Resourcing

You need to:	
Ensure resources flow from effective strategic planning	<input type="checkbox"/>
Be clear about where resources will be expended	<input type="checkbox"/>
Balance competing needs and, where resources are fixed, balance expectations of what can reasonably be achieved	<input type="checkbox"/>
Balance resourcing between the early stages of enterprise solutions and ongoing support for the delivery of online courses	<input type="checkbox"/>
Develop a systematic approach of time release with specialist support	<input type="checkbox"/>
Have the commitment to ongoing resource commitment for development, maintenance and monitoring/evaluation	<input type="checkbox"/>

Section 2: Actioning relationships amongst elements

Overview

In this section, the focus switches to examining the relationships amongst elements, and the key issues and challenges involved.

Focus group activity

A focus group discussion (FGD) was facilitated with each of the five partner institutions in May–June 2011. The topic for the focus group was ‘Leadership and planning’.

Participants worked in small groups to complete a matrix (see Appendix B for a blank matrix for measuring relationships between elements to ensure effective collaboration/communication). Given the compilation of the groups, the uncertainties and differences in key elements are noteworthy. The responses to the matrix indicated that where leadership was situated was variously understood and conceptualised. Within the groups, and then between the groups, it was apparent that notions of how the distributed leadership was played out varied, with some seeing a clear hierarchy of senior staff across all levels and others claiming that leadership was a role for everyone. Removing the element of individual difference, even within groups (generally of 3–4 people) in several instances the formal leadership of key elements could not be identified – or was identified very differently – by groups from the same institution.

Formal leadership was identified in form of position (e.g. DVC or PVC, Director or Head); area (e.g. learning and teaching unit); committee (e.g. learning and teaching committee, ICT services); project team (e.g. budget project team); structures (e.g. project governance structures); and documentation (e.g. ‘Horizon 2020’, ‘Teaching and Learning Policy’). Informal leadership was identified very broadly across all elements, from ‘the academic teaching community’ and ‘champions of online learning and teaching’ to those named by others as formal leaders (e.g. user reference groups and ADTLs).

ADTLs were likely to list this group as leaders across all areas and to see their role as an important linking element. Other connections were seen in organisational structures that allowed overlap in committee membership or fostered communities of practice, and found through the leadership of online teaching and learning champions drawn from faculties, as well as through effective project management. The existence of coherent and accessible underpinning documents that everyone could draw upon assisted in developing a holistic approach to OLE development, implementation and management. There was reference, however, to duplication, replication and competition for resources by the various stakeholder groups, with the planning cycle being described by a senior leader at one university as ‘recursive and self-referential’.

Assessment of the extent to which the flow between the key elements was logical varied from ‘5’ (a ‘very good’ extent) to ‘2’ (a ‘moderate’ extent). Again, there was a trend for faculty staff to provide lower ratings than their central staff counterparts. There was also a tendency for the extent to which the connections were well understood to be rated lower by both central and faculty staff than the extent to which they were seen as logical. Where there was a perceived limited communications strategy, it was predictable that the relationships between the different elements would be seen differently. Similarly, where there was consensus that a particular university lacked a clear vision statement, there was a resultant lack of flow between vision and the other listed elements and an assessment of a lack of leadership.

The opportunity was given for the groups to combine elements. Some universities have, for example, a clear statement of policy that online learning is fully integrated within learning and teaching in general, but this was not reflected in some group responses. While there were instances where they were merged, and replication/similarity between those who kept them as separate, there were also indications of less satisfaction for the management of online learning in particular.

And opportunity to change the wording of the various elements was provided (no group did this) and to add to the list. Seven additions were made: external; policy; institutional pedagogical framework; equity and diversity; capability development; academic development; and student support. Ratings of the connections between these and the level to which they were understood were provided only by those who nominated the additions 'academic development' and 'student support'. Both received 'O' ratings.

The main gaps identified were in a perceived lack of:

- communication
- a clear vision statement
- fostering creating solutions and innovation
- benchmarking or metrics
- clarity (and resentment of senior leadership)
- integration of service divisions
- integration between OLE management and across local and overseas campuses

and in disconnects between:

- IT decisions and teaching and learning agendas
- operational and strategic planning
- vision/strategy and budgeting
- planning and budgeting.

This project assumed that an OLE will be underpinned by quality management, yet this was an assumption that was rejected by several. Given some form of quality management, the extent to which leadership was recognised by it, developed through it and aligned with it was, with the exception of 2 of the 13 groups (both from the same university), seen as being, at best, to a 'reasonable' extent. For many, this was to a 'minimal' or 'nil' extent. Where groups were composed entirely of faculty staff (not possible to achieve given the composition of some FGDs) they were harsher in their assessment. Tension between leadership from the centre and within faculties as well as the 'over-competitiveness' between faculties and divisions was noted.

While some groups attributed this apparent deficit to their institution being quite early in the process, the lack of a quality framework that is well defined and well socialised, adopted, communicated and evaluated appears to be lacking for several institutions at the moment.

Alignment

The focus group 1–3 synthesis showed a strong level of agreement that alignment between those who make the fundamental decisions regarding OLEs and those who will teach (and

learn) in this environment is essential. They showed, equally clearly, that this alignment was frequently very uncertain and there were significant disconnects. Although some universities have, for example, a clear statement of policy that online learning is fully integrated within learning and teaching in general, this was generally not reflected in the group responses. Further, while it is encouraging that institutions have designated committees to provide strategic direction for ICT and ensure alignment with strategic plans, it is telling that groups did not inevitably cite these.

ADTLs were likely to list this group as leaders across all areas and to see their role as an important linking element. Other connections were seen in organisational structures that allowed overlap in committee membership or fostered communities of practice, and found through the leadership of online teaching and learning champions drawn from faculties, as well as through effective project management. The existence of coherent and accessible underpinning documents that everyone could draw upon was seen as assisting a holistic approach to OLE development, implementation and management. There was reference, however, to duplication, replication and competition for resources by the various stakeholder groups with the planning cycle being described by a senior leader at one university as 'recursive and self-referential'.

Assessment of the extent to which the flow between the key elements was logical varied from '5' (a 'very good' extent) to '2' (a 'moderate' extent). With the exception of one university, participants were more likely indicate satisfaction, with a majority of '4' (to a 'good' extent) ratings. Again, there was a trend for faculty staff to provide lower ratings than their central staff counterparts. Significantly, there was a tendency for the extent to which the connections were well understood to be rated lower by both central and faculty staff than the extent to which they were seen as logical, with some '1' (to a 'minimal' extent) and some '0' (to 'no' extent) ratings recorded. Where there was a perceived limited communications strategy, it was predictable that the relationships between the different elements would be seen differently. Similarly, where there was consensus that a particular university lacked a clear vision statement, there was a resultant lack of flow between vision and the other listed elements and an assessment of a lack of leadership. Some responses, where double-headed arrows were used to show connections between key OLE elements, indicated that leadership was perceived as being shared/reciprocal.

As well as revealing the very different philosophies/conceptualisations about online learning discussed above, the FGDs revealed perceived disconnects between:

- IT decisions and teaching and learning agendas
- operational and strategic planning
- vision/strategy and budgeting
- planning and budgeting
- central and faculty needs and approaches.

A perspective on bringing the elements together

Actioning the alignment of the relationships amongst elements is a challenging task. What follows from the project team's deliberations is a useful perspective on how the elements can be brought together into a functioning approach to advance the quality management of OLEs.

Distributed leadership is critically important in bringing the following elements together:

- Firstly, in the governance structures that are established to oversee the business of mediating OLEs (see previous discussion under governance)
- Secondly, by the way in which universities/faculties/schools/departments ensure sufficient and appropriate resources (both human and fiscal) are provided to the right areas to support fully the work of the institution.

In other words, governance can ensure the right systems are in place, but having an aligned organisational structure in place will also ensure the success of the institution's OLE. From previous discussion, the chosen structure will need to deliver the right types of services in the right amounts to get the best possible experiences and outcomes from the OLE.

For example, a good organisation structure would ensure that there is a robust project management methodology in place when implementing a new OLE (see discussion on needed capabilities under the organisational structure element). However, this methodology does need to go further than implementation. It should ensure that there is a level of sustainability in place by the time an OLE is fully functional and that the functionality is being fully evaluated. To ensure this sustainability, there needs to be a series of key stakeholders within the organisation that need to be fully appraised of the implications of implementing technologies constituting the OLE. These stakeholders would typically include (but are not limited to) the following:

- Business owner of the system – typically a PVC Learning & Teaching or DVC (Academic)
- Functional owner of the system (Director of Learning & Teaching or Director of Educational Technology)
- ICT services, or the provider of the technology to the institution
- Learning and teaching leaders within faculties (typically an Associate Dean or the like)
- Student management and support people (library and academic support)
- Academics
- Finance and human resources staff
- ICT trainers
- (And let's not forget) Students themselves.

From this possible list of stakeholders it is immediately clear that the success of an OLE is more about communication with a diverse or distributed group of leaders within the organisation; leaders that are typically not, for example, the Vice-Chancellor, Chief Operating Officer or Registrar. The success of an OLE, from the organisational perspective, rests with those responsible for providing functional leadership and support, and in how these distributed groups relate to each other. It is therefore not just the responsibility of the business and functional owners of the OLEs that need to be considered here, but the network of leaders who operate collectively underneath them. It is by empowering these people, backed by the organisation through strategies like workload relief, which the message of the vitally important role modern OLEs play in the institution's daily business gets right down into the organisation's soul.

added advantage of promoting the use of the underlying systems with those who might be hesitant to participate in their use. Better communication can see such reluctant staff engaging more with the OLE. In other words, it normalises the use of these systems for them.

Good characteristics and practices checklist – Across elements

The following good characteristics are proposed to ensure that there is sufficient consideration of the breadth of distributed leadership required to mediate an institution’s OLE across a range of elements.

There needs to be:	
A strong representation from faculties – those doing it on the front line	<input type="checkbox"/>
In your mix, enough senior people to carry decisions through to the next level up	<input type="checkbox"/>
A clearly identified business and functional owner of the technologies constituting the institution’s OLE	<input type="checkbox"/>
Clearly defined monitoring procedures in place to ensure the consistent application of policy in relation to the functioning of the OLE	<input type="checkbox"/>
An unambiguous set of guidelines for staff on how they are required to, or advised to, interact with others in the institution’s OLE	<input type="checkbox"/>
A governance structure that is aligned with the planning and financing of the OLE	<input type="checkbox"/>
Representation from all key stakeholder groups within the organisation	<input type="checkbox"/>
Clearly defined communication lines which are used regularly	<input type="checkbox"/>
An ROI period established and adhered to in relation to new technologies underpinning the OLE	<input type="checkbox"/>
A three- to five-year roadmap established for all the technologies constituting the institution’s OLE	<input type="checkbox"/>
A workload recognition for those within faculties and departments who have a leadership role in the institution’s OLE	<input type="checkbox"/>

External influences

An important aspect of the 6EOLE Quality Management Framework, to which the above discussion has alluded, is the impact of external factors on an institution’s choice of OLE. This section will briefly consider some elements that have to date not been canvassed, linking them with each of the six key features of the framework.

The following external influences may need to be considered by an institution, as related to:

- Planning:** It is not uncommon for institutions to now look broadly afield when considering the implementation of a particular OLE. It appears that ‘gone are the days’ when institutions spent significant amounts of money building their own systems. Rather, a systematic approach to planning based on the strategic need of the institution is typically seen to cover key areas such as the sustainability of an OLE, the business advantage that may be gained by using a particular OLE, the ROI period required for a system (typically three years) and, of course, the ongoing costs of maintaining a particular OLE.

- **Technologies:** The advent of public and private cloud services now makes the business scenario around having all technologies housed within an institution's walls quite problematic. For example, many institutions in Australia have now outsourced their student email systems to private providers. Similarly, the functionality of an LMS, which is becoming so central in the provision of a consistent learning experience, can very easily be hosted by a range of companies offering robust infrastructure with guaranteed service provision. It is recommended that, when considering such options, engaging with each of the other five elements of the 6EOLE Quality Management Framework will ensure a robust approach to any potential adoption of new technologies.
- **Organisational structure:** As has been discussed, at this stage there is no consistent model evident across the higher education sector as to how institutions establish their structures around the support of OLEs. Lamentable as this may be, there has been little external influence on institutions to conform to any particular model. However, what is evident is that institutions do tend to change their structures when new senior staff take office. Inevitably, this change approach is very costly to an institution in terms of staff time and the resultant changes to its systems. To that extent, external factors are at play and although this has been identified through other studies, little attempt has been made by the sector to alter this behaviour in any major way. Again, if consideration of this was fundamental within an institution's governance structures and mediated through institutional planning, evaluation and resourcing, a more holistic approach to this issue may be attained.
- **Evaluation:** This happens at many levels around an institution's OLE and predominantly relates to ensuring internal quality of how a system is functioning and being used effectively by staff and students. However, increasingly, and with the advent of government bodies such as the Tertiary Education Quality and Standards Agency (TEQSA), there will be pressure on universities to evidence that their evaluations are being acted upon for the betterment of students. For this to be the case evaluation needs to be not seen as an optional extra, but built into the psyche of an institution, again interfacing with each of the other elements in the 6EOLE Quality Management Framework.
- **Governance:** As mentioned in the previous point, the advent of TEQSA will begin to play an increasingly important role in how OLEs are governed within an institution. This will require not only that these bodies are taking responsibility for the quality of the systems they govern, but also that they can demonstrate this being done according to some sector-wide norms. This is the responsibility of those placed in charge of mediating the OLE for an institution, typically the business and functional owners of the systems. It is therefore imperative that these people are fully cognisant of the external influences at play in this space and are actively benchmarking their institution's performance against some agreed key performance indicators.
- **Resourcing:** In Australia, much of a university's money comes directly from the federal government, the influence of which is always being considered by all related elements of the Framework. In relation to OLEs (and other institutional systems), accountability as to how this money is distributed and (wisely) spent is a substantial consideration. Efficiency dividends, and the increasing pressure of conforming to outside influences to become 'more open' and make the outputs of an institution serve the public well, can place an immense strain on those charged with maintaining the integrity and security of OLEs and other systems.

Part C: Developing distributed leadership to enhance the quality management of OLEs

Key challenges in developing distributed leadership for OLE leaders

Universities are undeniably large, complex organisations operating in many different locations and sometimes offshore. As well as changing pressures and emphases on what does, and should, constitute tertiary learning, how that teaching and learning is delivered is contentious. This project's FGDs revealed tensions between the corporate institution – which demands enterprise solutions, standardisation and economies of scale – and the academy, which values creativity and supports academic freedom and the rights of lecturers to act in what they perceive will lead to the best learning outcomes for their students. In the context of significant investments in OLEs, and the challenge for leaders to marshal sufficient resources, this situation raises important questions. Does the way in which traditional universities are set up, with their complexities and tensions between competing priorities (e.g. research and teaching) militate against achieving optimal use of OLEs? This is in contrast to an institution (such as Open University Australia) that is explicitly set up to deliver online tertiary education on behalf of its member institutions, thus reflecting global e-Learning partnership and consortia arrangements. Does this help to explain why the five institutions of this project are all striving to achieve similar outcomes and facing very similar issues? How do leaders recognise and deal with these realities?

The FGDs revealed significant **different philosophies/conceptualisations about online learning**. At their most marked, and when these views are held by staff within the same institution or even area, such conceptualisations may well be mutually exclusive and an impediment to progress. At a minimum, they cause tension and, where assumptions are based on an incomplete understanding of sometimes entrenched and strongly held views, effective communication tends to be jeopardised – even forfeited. Some telling illustrations:

- Some advocate that online learning strategy, policy and planning should be separate, as this indicates its distinctive character and also importance. Others contend that it should be 'integrated'/'embedded' within general teaching and learning as testimony to the fact that it is mainstream and is not different from normative tertiary learning with such separation evidencing unmerited immaturity.
- Some believe that universities are self-organised systems and argue that plans/roadmaps come from a different ideology that controls, denying flexibility and stifling innovation. Others consider that plans/roadmaps provide direction, validation and assurance and are essential from legal, marketing and resource allocation perspectives.
- Some explicitly encourage and support individual academics to develop innovative and at times discrete pedagogical solutions on the basis that these are a normative part of academic freedoms and the teaching academic is in the best position to take responsibility for the use of the OLE in their teaching, and that successful innovation drives wider uptake and so enhances teaching and learning.

Others believe this is impractical, militates against student needs for consistency and can lead to unrealistic expectations by students.

- Some contend that change needs to be introduced slowly as this allows due rigor/diligence to be undertaken and affords users the opportunity to incorporate new teaching approaches in a well-considered way. Others argue that time pressure is a necessary response to the realities of 'now'; that it creates impetus and is a stimulus that concentrates attention and effort.
- Some argue that those 'on the ground' should have input from the start and it is essential that all staff are kept informed and so are aware. Others believe that open communication at all stages would cause unnecessary problems, leading staff to lose confidence where problems emerge, and argue that most staff have too limited a knowledge/experience base to make a worthwhile contribution and have little or no interest in such information as they are already overburdened.

Further, the FGDs revealed there is a **different conversation** concerning the selection of a particular technology or suite of technologies to be used for teaching and learning; whether that selection is part of a university-wide (enterprise/corporate) initiative or whether it is individual, or small group and local, in scope; the implementation of technologies in a way that allows perceived desirable teaching and learning outcomes to be achieved; and the evidence that this occurred.

A challenge for leaders in this domain, then, seems to be to bring these views forward at each stage and for each identified purpose so they can be recognised and understood. These then need to be reconciled within an emergent strategic view that can be sufficiently broad to accommodate different perspectives, yet sufficiently coherent and cohesive for a university's staff to have confidence that they are working within an enabling environment towards a well-understood and agreed-to end.

All five of the universities participating in this project have made significant investments to establish OLEs. At this stage it appears that, despite pockets of resistance, there is a high degree of compliance in terms of meeting minimum mandated requirements. Several teaching staff expressed the view that this was driven through expediency and perceived efficiencies rather than perceived pedagogical merit but, irrespective of the driver, it does mean that technologies are increasingly integrated into the curriculum. To move the preponderance of staff from compliant users to committed users and to use technologies in such a way that teaching and learning are optimised are further steps that institutions seem now to be grappling with. This is a challenge that faces leaders at all levels.

Process

Process is critical. While some groups revealed a sound grasp of what should be done (albeit with some gaps as discussed below), there was acute awareness of where the reality failed to match expectations of what was necessary. For one university this was expressed as a lack of vision or, as another university put it, there was no 'big picture' to guide OLEs. For another, it was a lack of an effective communication strategy and for several it was the lack of a coherent plan or roadmap. Clearly, all elements of a process need to be in place. As discussed above, the FGDs revealed that it cannot simply be assumed, for instance, that all

will embrace what many believe are fundamental requirements, such as a plan/roadmap. This suggests that all leaders need to be convinced of the validity of these elements and be in a position to persuade/convince their colleagues of the usefulness of the chosen approach.

Given the context of an OLE, the establishment of each end-point (the **what**) based on a clear (ideally shared) vision is the first stage. The process to achieve this (the **how** as well as the **when**) and **who** will take responsibility, and so lead, needs to be set in place, and understood at all levels. No matter how well conceived a strategy is, and even if it is adequately resourced, unless leaders (and especially those at senior levels) empower others to lead at the more local level by engaging in open sharing of information and genuine consultation as part of their commitment to the development of a learning organisation, outcomes will, at best, be compromised. Hence, the **why** needs to be explicit at every stage. Moreover, while outcomes will be articulated within a reasonable time frame (say three to five years), these are aspirational and effective leadership will ensure an iterative process, allowing these to be revisited, reviewed and refined at predetermined milestones.

Fundamentally, there needs to be a shared understanding of what is required by all stakeholders, so that everyone's efforts contribute to a shared strategic direction for the OLE: 'It's about doing the right thing, rather than doing things right'. While there is clear evidence of strategic planning and documentation being set up and then communicated to users, this appears to be a qualified solution. Distributed leadership is a model that supports having users involved throughout, and this is more likely to mean the **why** is dealt with, including how this will provide the desired learning outcomes. Participants in the FGDs acknowledged the difficulty of engaging academic staff, driven by often different priorities and demands, with this agenda. In response, leaders need to ensure that what they offer is perceived as useful and value-adding. A related challenge for leaders, in the context of perceived lack of engagement by many teaching staff, is the strong level of support for professional development by FGD participants, with several faculty staff taking this further, advocating accreditation in online teaching with mandatory training linked to performance management.

Given the recognised importance of process, and accepting that different institutions and participants will come at this differently, it remains of some concern that critical elements of a perceived robust process were seemingly missing. Not only was this readily apparent when groups judged what was happening in their own context against their sense of what was required, but even the perceived ideal process for many groups tended to lack important elements. Of particular note:

- Although communication was mentioned, no group specifically featured a process that brought technologists and educators together in meaningful ways and at important stages to inform major operational decisions.
- A process to ensure alignment with the institution's vision and strategic directions, its marketing and resources, supported by a cost-benefit and risk analysis, was explicitly mentioned by just one group (if suggested in part by others).
- Some but certainly not all sought to identify the learning outcomes (and their

assessment) in the context of the program/discipline/industry and the needs of the cohort and then put in place a process that mapped this against the OLE and the experience, readiness and willingness of academics to use these technologies.

- While several groups included beta testing or proof of concept, the link between technical efficacy and teaching and learning outcomes tended to be assumed.
- Given the stated and agreed importance of evaluation and a cycle of review, embedded evaluation did not feature as prominently as could reasonably be expected. While some groups incorporated review, reflection and the systematic seeking of feedback from users, only one group specifically incorporated an evidence-based approach to decision-making. There also appears to be a significant gap between the gathering of data and good decision-making and governance in enhancing the quality assurance process of OLEs and this could indicate a less mature leadership capacity.
- Infrequent reference was made to cyclic review, which could be added to program accreditation so technologies are routinely examined in the teaching and learning context and perceived obsolete or redundant technologies could be retired.

The FGDs suggested that an important aspect for leaders to consider is how important documents are disseminated, received and then actioned by those whose practice is being guided or even controlled. It is telling that, in the first round of discussions, no-one at any of the universities considered their current plan met its goals to a 'very good' extent ('5') and over half gave a rating of '2' or below (to a 'moderate' or 'minimal' extent) or said that there was no plan to rate. Given that discussion revealed that some staff, who had given scores of '3' ('reasonable') and '4' ('good') had done so on the basis of plans providing operational (as distinct from strategic) direction, or that their university was on the verge of providing such a plan, that proportion is probably higher. Staff, including senior leaders with responsibility in this area, conceded there were problems and limitations with their present planning documents: '[There is a] need to ask different questions that aren't answered by our current information documents'.

If these documents are not seen as helpful by the intended users, it is essential to know why this is so. The FGDs indicated that for plans/roadmaps to be useful, they should be:

- anchored to the strategic vision and should provide strategic direction
- simple and deal with a few well-understood issues that can be successfully implemented
- coherent, easily accessible and based on or reflecting a shared, common understanding
- articulating the 'what' and 'how' so people can find their place and be confident of their contributions
- able to reflect sustainability
- agile – able to respond quickly to emergent technologies and change
- regularly reviewed and updated so that it is a living document and responsive to change.

Groups recognised that to achieve these results requires the right organisational structure and strong leadership within a supportive culture.

The Report on the Survey of ACODE Institutional Representatives at Australasian Universities (Palmer, 2012, p. 6) showed that, of the six listed elements, respondents considered planning and resourcing as the most important. These respondents were least satisfied with resourcing and evaluation. Planning has been discussed already as part of process, but, because of the importance and attention placed on resourcing and evaluation, although they are arguably important elements of process, these are discussed separately.

Resourcing

Garnering adequate resources is a challenge for leaders, especially those at senior level responsible for enterprise investments. Most agreed that resources flowed from effective strategic planning but such documentation, in its turn, tends to be reliant on knowledge of what resources will be available. Consequently, leaders need to have the vision to see beyond the immediate and the skills to convince others of the validity of their proposals. There is also the issue of where resources will be expended, balancing competing needs and, where resources are fixed, balancing expectations of what can reasonably be achieved. The FGDs revealed that some teaching academics felt that a preponderance of resourcing was spent on the early stages of enterprise solutions and this meant inadequate resourcing was in place to support the delivery of online courses. A systematic approach of time release with specialist support was seen by several as an important way to progress this agenda. There was a shared view that the actual rollout of OLEs was more resource intensive than was generally realised, and leaders who accept that this agenda requires ongoing resource commitment for development, maintenance, monitoring, evaluation and further refinements need also to be aware of the ongoing need for vigilance in this area. Resources must match the rhetoric if academic staff and students are to be fully engaged with the OLE.

Staff who responded to the 2012 ACODE survey considered resourcing the most important element (3.79) and, for this reason, it is instructive to see the emphasis placed on this in this project by the various groups over the three rounds of discussions. Although the discussions were not transcribed, the individual reports draw on the recorded conversations. Given the many thousands of words in the focus group discussions, 'resources' and 'resourcing' were mentioned just nine times in the first round, three times in the second round, and 14 times in the final round. The issue was not brought forward at all in discussion in four of the FGDs. As well as conversation, each round of FGDs incorporated an activity to do with process, both ideal and existent. Given not only the suggested importance placed on this by respondents to the ACODE institutional representatives survey, but also that this element was judged by them as having the second lowest level of satisfaction (1.97), it is significant that the majority of these groups did not incorporate any reference to this. Not surprisingly, the one institution where resources were more consistently mentioned has a senior level appointment in this area. Where references were made, they tended to be by faculty staff seeking greater support for teaching:

There are adequate support resources that allow support from management to implement an effective system and process (time, development, training etc.) and teaching and learning are really valued.

Resourcing received the greatest attention in the final round (21 references in all, compared with 17 for the first round and 6 for the second round) with 8 of the 21 references coming from one institution.

The comments made, as well as the references to resourcing in the process activities, evidenced awareness for some individuals and groups of the importance of adequate fiscal and personnel resourcing. As this is one of the critical challenges for OLE leaders, the conclusion from the FGDs is that, despite some indicators to the contrary, resourcing is not given the attention it deserves.

Evaluation

In contrast to resourcing, evaluation was frequently mentioned in the FGDs, with 52 references in the first round in comparison to 17 for resourcing. Evaluation naturally dominated discussion in the second round, where it was the chosen focus, perhaps accounting for the lesser emphasis in the third round, where there were 14 references.

The groups in the first round thought evaluation was important, more than half thinking it an imperative ('5'). In the second round, this proportion swelled to 74%. Consistent with the ACODE institutional representatives survey respondents, in the first round of discussions only 6 staff – and they were from the same institution – rated their present evaluation highly ('4' and '5'). Most central group participants thought it 'reasonable' ('3'), with faculty members being less satisfied. The FGDs revealed tensions between waiting to do a full, thorough evaluation and missing the immediate opportunity for improvement based on less robust information. Again, there was not a definite shared understanding of what evaluation in the context of the OLE context meant and entailed. It was suggested there was a conflation, with a mix of organisational evaluation of functionality (including pedagogy) and governance structures. Those who considered the present evaluation ineffective did so on the basis that:

- if the purpose of evaluation is continuous improvement, it needs to be culturally embedded – second-nature
- OLE evaluation is too often conceived as an IT project when really it is a fundamental change to teaching and learning
- while a university can be 'very data rich with lots of evidence' this does not mean these data are used meaningfully to inform decision-making.

In each session, the ratings provided in the first FGD for that institution then and for the following six months were shared. While it is accepted that the group composition had changed, the downward trend is readily discernible and several commented that the optimism of development in this area six months ago had been unfounded. For some this was attributable to lack of leadership that meant there had been no clear direction for online learning evaluation; for others it was the timing as they were 'now' in transitional periods. For some it was a resourcing issue: 'It's never anticipated just how difficult implementation will be'. It is important to acknowledge the perception that a decline in rating is not necessarily a disappointing outcome. For several participants, this revealed an increased understanding of what should be involved in a rigorous evaluation process as well as a better understanding of 'where we are and where we think we should be'.

There is consensus that evaluation findings need to be appropriately disseminated and decision-making needs to be evidence based. The strong impression is that this is not occurring, with 70% of participants giving low ratings and more than 25% of participants claiming this was not happening at all. It seems that most data are collected and reported by central agencies and OLE evaluation is summative in nature and, in some areas at least, construed as an end-point rather than an iterative process. Several groups concluded that there was a need for a more coherent approach within an overarching strategy and framework. It is also apparent that for evaluation findings to have a definite impact, they need to be presented in a way that teaching staff find palatable and with appropriate support.

As the project is about distributed leadership it is telling that most of the discussion was around centralised decision-making. It was suggested that faculty staff need to be convinced that evaluation, as an ongoing process, is their responsibility and that academics need assistance in how to construct valid, reliable instruments and gather evidence to inform decision-making or need ready and easy access to proven evaluation tools. This would lead to a fuller engagement and to local improvements.

From the documentation of what groups considered would form an ‘optimally effective’ process of evaluation of OLEs, it is apparent that further discussion of this nature among all those involved would be generative in moving this agenda forwards. The time span between the focus group rounds indicates there is a growing understanding of what is required. However, the assessment of the extent to which different elements of this process were being met suggests a greater shared commitment is necessary and that leadership should ensure that evaluation of OLEs is monitored. The different understandings at times expressed between central and faculty groups indicate the need for greater communication.

Groups indicated that effective evaluation is ‘culturally embedded and ubiquitous’, cyclical in nature (thus ongoing and part of continuous improvement) and that there is a need for both formative and summative evaluation. Groups took the position that OLE evaluation should be systematic and regular linked to key decision-making, with baseline data to establish the pre-intervention ‘state’. There is a need also to achieve a balance between what some may view as desirable and what is achievable given the resources and time frame. And, as discussed above, if these data are then not used to inform decision-making and reports are shelved without their findings being shared with interested parties, the value of such evaluation is severely limited. Even when actions occur based on these evaluation findings, the process remains incomplete if that does not, in turn, lead to a re-evaluation. Finally, OLE evaluation, itself – most especially at the university level – needs to be monitored, with the process regularly reviewed and refined as necessary.

Approaches and strategies for developing and sustaining distributed leadership

Van Ameijde, Nelson, Billsberry and van Meurs (2009) investigated improving leadership in higher education institutions using a distributed approach and concluded:

In order for distributed leadership to work effectively, it seems that organisations need to approach leadership development in a different way than traditional conceptions of leadership would direct. Instead of focusing on the development of the leadership capabilities of an organisation's designated leaders, focus would shift to investing not only in developing leadership skills of the workforce as a whole, but also to facilitating the conditions conducive for the emergence of successful distributed leadership and the formation of informal networks of expertise. Developing the leadership skills of the workforce without facilitating the conditions for distributed leadership to thrive would quite likely lead to frustrations and inhibited effectiveness and engagement, whereas the facilitation of the necessary conditions without development of the required skills would likely lead to confusion and misalignment of teams with the wider organisational context. (p. 777)

These observations accord with the findings of the project. The distributed leadership of OLEs' needs are a combination of structured and supportive organisational conditions for effective change management, staff able to demonstrate a range of key leadership capabilities (based on the characteristics of effective distributed leadership featured in the Framework), and specific institutional strategies which can provide the opportunities for such capabilities to be brought out, developed, recognised and rewarded. These aspects of building distributed leadership are covered below.

Organisational conditions and effective change management

A final round of interviews with institutional leaders was conducted as part of the project (see Appendix C for questions). These interviews focused specifically on the nature, benefits and limits of cultivating distributed leadership (DL) in enabling the quality management of OLEs. The findings suggested that, for change management within the OLE space to be effective, even within the DL construct there remains a hierarchy of leadership and leaders need to act in ways that accord with their position. While making their own contribution to the university's mission and vision in this regard, it is the responsibility of senior leaders to set an appropriate *organisational framework* to help shape the effective change management of the OLE. They need to create and/or allow opportunities for various approaches and strategies to be pursued to allow DL to flourish within such a framework and within well-understood and accepted boundaries. Leaders at all levels need to be encouraged and supported to see how their own leadership skills can be enhanced and how they can build leadership capacity in others. As major decisions are implemented, well-led interconnected networks, or teams, allow better outcomes for all concerned as all stakeholders work in an environment of mutual respect and support towards common goals and as broader, as well as deeper, engagement with the OLE agenda results.

The interviews highlighted that rapid changes in technologies mean that the OLE is a dynamic fast-moving space and educators need to work in new and sometimes very different ways to what they may have been accustomed. Further, they cannot rely on

repeating strategies and solutions of the past without understanding what modern technologies can offer and analysing what is required for specific cohorts and learning needs at a particular point in time. Linking those from the centre of the organisation with those from the faculties, working locally – but within an institutional context and with sector-wide links and global understanding – mandates the involvement of many people across an institution. Building leadership capacity at all levels seems an important part of gaining the best learning and teaching experiences and outcomes in the OLE space.

While valuing DL – especially as it was seen as engendering buy-in through a culture of collaboration – interviewees pointed to the need for oversight and formal direction by someone with the vision of where the organisation wants to see its online teaching and learning go, and to the critical role of absolute directional leadership being set in place within the management regime. There was recognition also that success depended not only on the person in a DL role but also on the support by upper levels of leadership or management – including respect and recognition – and the general conditions of the online working environment.

As leaders within the OLE space, those in senior positions spoke of monitoring the global online environment to keep their university apprised of the latest developments and then lead the decision-making to ensure that any planning or implementation worked in a practical way, with cognisance of business as well as pedagogical imperatives. While drawing on the wisdom and expertise of others, there was acknowledgment that senior leaders in formal positions of authority have to lead and that means having the vision and being the driver. It is telling that some senior leaders recognised that, for their OLE vision to be realised, a network of leaders was necessary and, while central areas have a vital role, online teaching and learning occurs in the faculties and leadership there is essential. In this regard, the ADTLs or their equivalent were deemed as the ‘key people’ because of their leadership role within their faculty and remit to forward the online learning environment.

Universities are institutions where questioning and debate are embedded into the culture. Moreover, in the context of the OLE, those leaders interviewed recognised they were working in a dynamic space and opinions could change literally overnight as technology changed. While there was general agreement that the goal was to gain consensus and a mutually satisfactory and satisfying outcome through meaningful discussion, there was also recognition that a leader also has to be able to make a judgment call about the importance of the issue, the significance of an entrenched view and hence, when it is appropriate to capitulate, walk away or indicate that such a viewpoint cannot be accommodated. While all wished for ‘win-win’ situations, with enthusiastic buy-in by all those involved, some leaders indicated that, if a viewpoint is contrary to the stated direction of the institution, or if the person advocating the position is inexperienced or in a role of minimal influence or impact, it is relatively easy to reject their views rather than taking the normative approach of persuasion through well-argued and evidenced discussion. Where the person concerned was a leader in a particular area but was not in a position of authority, there was acceptance that, once viewpoints had been expressed, then it was necessary to defer to a person/group with more responsibility and accountability and move on with the agreed view.

The following responses indicate how these leaders dealt with the issue of working through differing viewpoints:

- Having multiple channels of communication that allow information to be gathered and disseminated, so building understanding and participation

- Canvassing the range of views with open and transparent debate on a given issue and then taking an evidence-based approach to inform a decision
- Leveraging support from those at a higher level
- Seeking depth of understanding through engagement by linking personal and professional experience.

Successful leadership appears to demand the preparedness to listen to different viewpoints, appreciating that people come with different experiences, understandings and approaches and that these can result in a richer outcome. Beyond this, where that leader has the authority, responsibility and accountability to make the decision, once the consultative stage is completed and the decision made, it is productive to explain why contrary viewpoints cannot be accommodated so those people are not simply ignored. Doing everything possible to engender buy-in by all those involved (and even the most senior leaders interviewed stressed the importance of buy-in from those above them in the hierarchy as well as those below) means that having strategies such as these, to bring those who are apparently disaffected into the fold, makes such an effort worthwhile.

Findings from the interviews suggested criteria that leaders use to judge the success of OLE initiatives. Discussion of change management efforts may not have been directly linked to building effective distributed leadership capacity. Also, there are usually many factors that impact on change management project initiatives (e.g. the technologies being used, the level of experience of those involved, the kind of support offered as well as the evaluation tools that are used to form any judgment of efficacy). The indicators of the degree of success offered by those interviewed were the extent to which:

- the change has happened and it is change in the right direction
- the project's stated deliverables are achieved
- agreed steps were taken (i.e. processes) and online teaching quality improved (i.e. outcomes)
- the OLE initiative is sustainable
- teaching staff move from compliance and minimalist implementation to becoming engaged with the pedagogical opportunities of the OLE
- online teaching is enhanced as demonstrated by such factors as improved student evaluations, improved progress and increased student demand for entry to the course
- staff participated in activities leaders offered
- staff were increasingly willing to engage with the OLE agenda
- the relationship between central areas and faculties became closer
- faculties have gained confidence about where and how they have been supported
- there is flexibility and various stakeholders have leeway to influence and have an impact
- there is public acknowledgment, especially by very senior staff
- there are very few complaints.

Resourcing around OLE change management was seen as the key issue but not, as some could expect fiscal investment in the OLE, with several staff from different institutions referring to significant investment of many millions of dollars. Rather, the emphasis was on staff as a resource and building that capacity. There was widespread recognition that technology changes are very rapid and skills requirements in this area have fundamentally changed and will continue to change. Whereas five to ten years ago the emphasis was on content preparation, with significant investments in products that need quite long lifespans to justify their cost, this has changed to developing pedagogical analysis to discern the best tools to match the learning activities that most suit the learning outcomes desired at a given time for a given group. There was consensus that agility and flexibility were needed and that close alignment between discipline and cohort demands transformational rethinking of traditional pedagogical modes. Further, new players in this space, especially those who are using technology in highly creative ways, add additional pressure, with the need to work competitively. With student learning as the bottom line for OLEs, it is not surprising that those interviewed stressed the importance of building the capacity of those who will teach in a contemporary online environment.

Distributed leadership capabilities

Distributed leadership arises through the interactions of many different people with a common interest in advancing the quality of OLEs. From above, high-level positional leadership must accept the overall responsibility for framing a change-ready and capable organisational environment. To build and maximise the conditions for effective distributed leadership they must have certain types of leadership capabilities (i.e. knowledge, attitudes and skills). Moreover, those in other leadership roles, or wishing to take advantage of leadership opportunities, must also cultivate capabilities that allow them to perform effectively in such environments. Effective distributed leadership cannot emerge if those participating lack the individual leadership know-how to contribute in highly collaborative ways across a diverse range of parties and contexts.

The characteristics of effective distributed leadership capacity building can be restated in terms of the know-how required to contribute actively to building and gaining value from distributed leadership structures:

- **Enabled individual and collective agency:** the capacity to exercise individual judgment in informing action, both individually and when working in groups
- **Co-created and shared vision:** the ability to appreciate the institution's strategic intent and directions, contribute to its formation, and contribute actively to its realisation in concrete ways
- **Inclusive of all those who lead:** the capacity to rise to the challenge of demonstrating leadership when opportunities are forthcoming, and the confidence to do so wherever located within the organisation hierarchy
- **Broadest recognition of leadership:** an appreciation of the many ways in which leadership can be demonstrated, and the capacity to reach out and use the value of these leadership contributions
- **Communicative and engaging:** the skills to be an open and active communicator, and to engage with a broad range of people's interests and concerns
- **Appropriate responsibilities:** the capacity to clarify leadership responsibilities, and provide maximum room for people to demonstrate initiative and work effectively with others in their sphere of influence
- **Meaningful rewards:** the ability to construct a broad range of rewards for staff to exhibit effective leadership
- **Trusting and respectful:** the capacity to trust those who lead in various roles and ways, and to deal constructively with those who may have alternative viewpoints
- **Collaborative in development:** skills in contributing to collaborative endeavours and in seeing added value through the pooling of diverse expertise
- **Nurturing of valued professional expertise:** the capacity to create, support and match staff to professional learning and development opportunities consistent with their career stage and leadership aspirations
- **Valuing professional forums and communities:** the commitment to establishing various forums and communities to enhance OLE practice throughout the organisation in ways which maximise opportunities for leadership contributions and which are consistent with strategic directions
- **Continuity and sustainability:** the capacity to foster ongoing commitment to enhancing the quality of OLEs through mobilising the broadest range of leaders in ways that create enduring learning and teaching gains.

Institutional strategies

Various strategies can be put in place to give staff the opportunity to collectively influence each other and advance various dimensions of the quality management of OLEs. From the final round of project interviews with OLE leaders, the following change management initiatives were referred to, and these would not be atypical within the sector:

- Making structural changes so related sections are brought together
 - Developing a planning framework
 - Undertaking a comprehensive skills analysis to reveal skills and understanding in the online space
 - Having broad e-Learning advancement programs
 - Having programs around specific technologies or suites of technologies
 - Establishing and developing faculty-based teams linking pedagogical, educational design and technological expertise
 - Identifying and supporting champions and developing exemplar units
 - Increasing the investment in developing resources to support online learning: for example, employing online designers, retraining educational developers, offering high quality professional development including paid PD for sessional staff
 - Developing standards for good practice to provide staff with a guide to what is acceptable or not acceptable
 - Resolving workload issues
- Adopting strategies to increase communication between parties and campuses.

In dealing with these change management initiatives, as well as technical failures and problems, the impediments described by interviewees included:

- the absence of local leadership to support a central initiative
 - the lack of a culture where there is an expectation that all staff will be highly fluent with the university's OLE and staff are actively encouraged to embrace its opportunities
 - entrenched views
 - time and the many competing priorities for all staff involved
- lack of workload recognition.

In identifying specific strategies that can be implemented to foster distributed leadership, it is important to select and use them in the context of the types of major OLE change management initiatives identified above, as well as to bear in mind the types of impediments that can be experienced. Often strategies are and need to be used in combination. Institutional and individual needs and benefits must be balanced and tied in with short- and medium-term career goals.

With this in mind, the following **12 strategies** can provide staff with opportunities to develop, demonstrate and sustain leadership both individually and in association with other leaders:

- 1. Local and institutional communities/groups/forums:** opportunities for informal leadership to emerge at various levels and domains and to interact with those in formal leadership positions. These can provide deep-level collective understandings around the commonality and diversity of concerns and practices. This can be useful in informing ongoing developments of an institution's OLE.
- 2. Inter-institutional communities/groups/forums:** these more formalised opportunities, as facilitated by national, state and regional bodies, provide opportunities for developing a breadth of understanding of national and international developments with OLEs, in collaboration with significant other leaders in the national and international sectors.
- 3. Internal conferences:** on learning, teaching and technology often allow staff to informally showcase their online teaching, and make connections across faculties, campuses and disciplines, helping to build with others the capabilities required to more formally lead within and beyond their institution. These events can give senior leaders a breadth of insight into the various and diverse uses of the OLE to enhance quality learning experiences and outcomes.
- 4. External conferences:** which might be educational or commercial, provide extended opportunities to connect with knowledgeable others nationally and internationally. They provide opportunities for developing or expanding OLE research and development agendas and programs through such interactions, and to project leadership know-how well beyond the employing institution.
- 5. Internal research and development projects:** OLE research and development projects can be funded at faculty and/or institutional levels. Bidding can be framed around organisational strategic directions and commitments. Projects can involve multidisciplinary and cross-functional teams providing new forms of project-based, shared leadership opportunity and responsibility. Projects can help create or at least realise strategic intent in a deep fashion as related to particular disciplines, fields or programs. Their outcomes can be institutionalised and scaled when of broad relevance, and this can in turn generate further distributed leadership engagement in the organisation.
- 6. External research and development projects:** internal projects can be a springboard to externally funded projects of national significance. Such internal projects can focus on questions and topics of national significance, and a number have been funded by Carrick/ALTC/OLT in the OLE space. They open up distributed leadership through inter-institutional partnerships with a strong focus on research-informed development and dissemination. Leaders can both foster distributed leadership through the project and connect findings to a range of relevant leaders within the host institution.
- 7. Internal teaching/learning/technology fellowships:** fellowships can provide faculty staff with opportunities to interact with their peers in other faculties and with central staff. They can provide the time and support for leadership know-how to be developed within a supportive peer group. Fellowships can provide the basis for further development of leadership through projects, and Fellows might continue their work through institutional and faculty forums, communities of practice and networks.

8. **External teaching/learning/technology fellowships:** these may be supported by the national teaching and learning body, or professional associations. They provide opportunities for high level mentoring and ‘critical friend’ support from acknowledged leaders in higher education nationally and internationally. These can lead to new collaborative opportunities of significance to the staff member’s institution and the sector.
9. **Centrally and locally provided workshops, seminars, training and other information sharing channels and sessions:** staff can develop leadership through running such activities or develop important contacts through active participation. Opportunities for individual and collaborative forms of professional learning away from the immediate pressing demands of specific work activities to be undertaken can stimulate staff to appreciate other contexts and develop richer perspectives. Such staff in interaction with each other can demonstrate important forms of collaborative leadership, and bring shared commitments back to enhancing local OLE practices. Increasingly, institutional information sharing is occurring via social media environments that are open to anybody with relevant expertise to lead discussions or share intelligence on OLE developments.
10. **National and international partners, including benchmarking exercises:** usually these are strategic initiatives pooling expertise amongst those in formal leadership positions across various institutions. They may involve major OLE benchmarking activities or consortia offering a range of online courses. Having the capabilities in working effectively with the distribution of high-level leadership in such arrangements becomes a critical success factor.
11. **Course/program (re)accreditations and course advisory groups:** in Program Director-type roles, shared leadership capabilities are required in undertaking major course/program (re)accreditations in dealing productively with more senior internal leaders and colleagues, and external leaders on course advisory groups. Increasingly, major program (re)developments need to be cognisant of the developing affordances of the institution’s OLE in order to achieve fully intended program learning outcomes and aligned statements of institutional graduate attributes. Effective leadership at the program level can lead on to further higher level teaching/learning leadership positions with their own accompanying distributed leadership challenges.
12. **Development of staff as unit/course chairs, course/program directors/coordinators, Associate Heads of schools and faculties, Heads of School and Deans, or senior executives through formal leadership development programs:** off-the-job leadership development opportunities are still important for teaching/learning leaders at different levels of the academic management hierarchy. Such leadership development opportunities can be more valuable when they require a mix of leaders at different levels, in different roles and in different groups to work together on some relevant and important action learning project addressing a real institutional need. Such projects demand effective distributed leadership with participants needing to develop and demonstrate distributed leadership know-how to achieve desired solutions.

Finally, it should be added that staff in formal leadership roles have opportunities to interact productively through various faculty and university committees and working parties to achieve the institution’s ongoing business, and as related to the quality management of their OLE. OLE governance structures require effective distributed leadership for handling operational concerns, and in shaping future OLE strategic agendas.

Part D: Relevance of the Framework in dealing with special issues

Special issue 1: OLEs and offshore operations

Many of the challenges that offshore campuses face in managing an OLE within a strategic direction set by the Australian parent university would be familiar to those working at any satellite campus or within a smaller or less influential department. These can consist of operational issues such as the need to balance efficient management of enterprise systems with the flexibility to develop an OLE that accounts for local infrastructure and capacity. There are more strategic or philosophical differences that are familiar as well, such as the tensions between instructors' freedom to teach as they see fit and the positioning of the OLE within the university's overall strategic academic and business plans. However, the offshore context presents an extra wrinkle to the fabric of our conception of distributed leadership.

We argue in this document that distributed leadership – a matrix of relationships involving vertical and formal relationships between levels of the institution, crossed with horizontal and informal relationships within levels – is becoming increasingly important due to the increasing size, complexity and diversity of Australian universities. While the ACODE survey reported here found that 'oblique' relationships were less important than vertical or horizontal ones, it is the experience of the offshore partner in this project that operating offshore adds a 'third dimension' to this complex but relatively flat matrix, as there are multiple informal and formal cross-relationships between the onshore and offshore campuses, both within and across levels. A distributed leadership framework applied to a university operating an offshore campus must help manage this more complicated set of relationships, and account for several unique facets to the elements of the 6EOLE framework.

Offshore learners' needs

Any large university must develop organisational structures that support delivery of teaching through the OLE so that high-level objectives such as graduate attributes, program maps and course learning outcomes are comparable across campuses, but allow flexibility for contextualisation. There are two considerations for organisational structure specific to offshore students. Firstly, although the notion of students as 'digital natives' is critiqued even for students in highly developed countries (Selwyn, 2009), for an offshore campus in a developing country, the expectation that all students are proficient at using learning technologies is even more problematic, as students have not experienced 'ubiquitous' exposure to media since birth as their Australian peers have. Secondly, the large majority of students attending offshore campuses are from non-English speaking backgrounds (NESB), and most are unfamiliar with Western modes of learning. As with the notion of digital natives, essentialist ideas of 'Asian learners' are contested. As Biggs and Tang (2007) have shown, the principles of effective tertiary teaching are relevant for learners from diverse backgrounds. However, for offshore campuses, especially those operating in more monocultural countries, it is possible to generalise about students' prior learning experiences, and to truly contextualise teaching – not just in terms of adapting content, but to design learning activities which recognise students' prior learning backgrounds. In both of these areas, the offshore campus can take a leadership role for the university as a whole in

making sure that OLEs are sensitive to the needs of NESB and non-Western learners.

Examples of this include:

- adding additional scaffolding and support to learning design for students unfamiliar with enquiry-based or student-centred teaching approaches
- using the OLE to provide extension language development and committing specialist staff time to support it
- ensuring that students have the necessary information and digital literacy skills needed to make use of the OLE.

Change and offshore campuses

A recurring theme in this project has been the recognition that change in the Australian university sector is perpetual, accelerating and becoming more complex. Marshall's e-Learning Maturity Model (eMM; Marshall, 2004) captures an important aspect of quality management and responsiveness to change. This is especially relevant to the offshore context both because the pace of change is likely faster, and because the relationship between the offshore campus and parent institution is subject to rapid change as well. Amongst the potential issues are rapid growth in student numbers, increase in the number of programs offered, gradual or rapid change of institutional mission, and higher staff turnover than at the parent campus. This potentially affects each element of the 6EOLE Quality Management Framework. Planning must remain agile enough to respond to changes at the offshore campus that have no direct parallel at the parent campus, and remain open enough not to stifle innovation. Technology choices made based on fit-for-purpose and budget available at the parent campus may be inappropriate or too expensive for the smaller offshore campus, so both planning and governance elements must support effective technology acquisition.

Equivalency of access to resources

The default stance should be that relevant resources produced or acquired by one campus are made available to students at all campuses, ensuring this is first a governance issue. Offshore campuses should have representation in the formal committee structure of the parent campus at both the strategic and operational levels. The former gives the offshore campus a voice in decision-making. The latter is also important as, while strategic decisions should be abstracted from the technical specifics of the OLE, they are often made with an implicit understanding of what is possible. Access to committee structure at the operational level allows the offshore campus to ensure that timelines and implementation approaches account for differences in the affordances and capabilities of the offshore OLE.

Ensuring equal access extends to the planning, resourcing and technology elements of the OLE as well. Business requirements unique to the offshore campus must be identified and included in each project. However, the business owners of OLEs, teaching and learning staff, and IT services staff also need an agreed means to negotiate when an offshore campus will be omitted from a project's scope, based on these, or other criteria:

- financial impact on either campus
- technical limitations

- relevance of the technology to the offshore students
- strategic/policy constraints.

Ideally, this is supported with a decision about when and how the offshore campus will 'catch up' to the parent institution's capabilities.

Finally, the evaluation process must also consider the needs of the offshore campus. For a variety of reasons, the offshore campus may achieve different results, or may even measure the success of an OLE differently to the parent campus.

Clarifying learning and teaching responsibilities

An organisational structure and governance model intended to grant an offshore campus autonomy may be philosophically appealing, but carries a significant risk that the quality of the online experience declines for students at the offshore campus if the parent institution withdraws development of learning resources, and the offshore campus lacks the resources to compensate. Spontaneous alignment (Harris, 2009) may degenerate into spontaneous misalignment. An effective distributed leadership model must provide a framework for the process of making decisions so that the organisation can resolve:

- responsibility for developing content
- responsibility for learning design
- responsibility for staff professional development
- planning and implementation issues
- financial management strategies.

Managing ICTs

IT services staff at the parent institution may both overestimate and underestimate technical capacity at the offshore campus during the planning phase of the ICT system life cycle. As indicated in the Queensland Government ICT asset life cycle framework (2009), a quality management approach to the ICT life cycle requires that the organisation account for operational considerations throughout the life cycle. This is most clearly part of the planning and technology elements of the 6EOLE Quality Management Framework. Effective OLE planning for an offshore campus, most likely located in a developing country, must determine whether:

- the offshore campus IT staff have the expertise to manage the OLE
- the offshore campus can procure the necessary systems, within acceptable time frames and at a reasonable cost
- the technological infrastructure exists to support teaching and learning with the OLE (including enterprise-level systems).

There is also a resourcing aspect to this issue; if the offshore campus is small, it may initially appear most efficient to use the parent institution's enterprise-class systems to provide the OLE. However, an offshore campus may face infrastructure limitations (e.g. limited bandwidth and unreliable internet connection) that make it necessary to implement a cost-effective local solution.

Evaluating quality

Crosby (1995) describes a user-driven approach to quality management, noting that quality is a perspective of the user or 'customer'. Crosby identifies industry and employers as a customer of the university in this context. Offshore campuses may strive, by conferring an accredited Australian degree, to provide students with global mobility. However, the fact is that most students graduating from an offshore campus will find at least their first job locally. Employers in the country in which the offshore institution is based must be recognised as 'customers', whose needs differ from those of employers in Australia. OLE management, as part of the learning and teaching strategy of the university, must allow the online learning experience to be contextualised so that students develop the skills and capabilities needed locally.

Special issue 2: OLEs and mobile technologies

All Australian universities need to position their technology platforms, both OLE and general infrastructure, for the post-PC mobile era, in which ownership of individual mobile devices will approach a complete presence in the student population. In undertaking this transition, universities will need to address transformation in each of the following three domains:

- 1. Infrastructure:** providing the infrastructure and support services for on-campus use of mobile technologies
- 2. Mobile web presentation:** establishing and maintaining a mobile delivery capability with all relevant websites or web services
- 3. mLearning:** utilising the affordances of mobile technologies specifically in the learning and teaching context.

As a generality, Australian universities are in systematic transition for the first two domains, and at the early stages of piloting and evaluation for the third. All major OLEs are increasing the capability to deliver aspects of OLE functionality to mobile devices; however, at this point this functionality is in the form of a selected presentation of the OLE output on a mobile interface. In the longer-term future, the person, location and device-specific capability of mobile technologies will be able to be exploited by the OLE as part of the general advances of mLearning. The advent of such a highly personalised OLE interaction, in addition to providing universities with a new architecture of participation for students, will bring forth privacy and equity issues that must be addressed at a whole-of-university level. Beyond this, the realisation of the potential of mLearning will lie with the capacity for staff and students to utilise the rich and personal affordances of the technology. For staff, effective professional development will be a key dimension in a successful mLearning change strategy. Intrinsic to this will be localised leadership by early adopters to lead, inform and guide the contextually relevant professional development that shapes the implementation of mLearning in universities.

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Project reports

Focus groups

Phase 1 focus group – Planning and leadership

<www.deakin.edu.au/itl/assets/resources/research-eval/projects/altc-ole/evaluation/p1-fg-report.pdf>

Phase 2 focus group – Evaluation

<www.deakin.edu.au/itl/assets/resources/research-eval/projects/altc-ole/evaluation/p2-fg-report.pdf>

Phase 3 focus group – Technologies (teaching and learning)

<www.deakin.edu.au/itl/assets/resources/research-eval/projects/altc-ole/evaluation/p3-fg-report.pdf>

Summative report – Phase 1, 2 and 3 focus groups

<www.deakin.edu.au/itl/assets/resources/research-eval/projects/altc-ole/evaluation/summ-fg123.pdf>

Targeted interviews

Phase 4 targeted interviews – Strategies to develop distributed leadership capacity

<www.deakin.edu.au/itl/assets/resources/research-eval/projects/altc-ole/evaluation/p4-interviews-final.pdf>

Quality Management Framework survey

Report on the Survey of ACODE Institutional Representatives at Australasian Universities

<[www.deakin.edu.au/itl/assets/resources/research-eval/projects/altc-ole/evaluation/acode final report.pdf](http://www.deakin.edu.au/itl/assets/resources/research-eval/projects/altc-ole/evaluation/acode%20final%20report.pdf)>

Appendix A: Staff and student OLE survey instruments used by one partner institution during project implementation

Survey http://www.deakin.edu.au/deakinsurveys/s

This is the student survey - the staff survey starts on page 6

DSO Evaluation 2012

This survey seeks information regarding your perceptions and usage of the new **Deakin Studies Online (DSO)** system - that is the **Desire2Learn** learning management system - and all associated technologies used to support learning and teaching at Deakin University.

Demographic information

1. Gender

- Male
- Female

2. Age at last birthday

years

3. With which Faculty is the **majority** of your studies associated?

- Arts and Education
- Business and Law
- Health
- Science and Technology
- Other

4. On which campus do you **principally** study?

- Melbourne Campus at Burwood
- Geelong Campus at Waurn Ponds
- Geelong Waterfront Campus
- Warrnambool Campus
- Off campus

5. How long have you studied at Deakin University for in your most current continuous period of enrolment?

years

6. Do you use Deakin Studies Online in your studies?

- Yes
- No

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DSO Evaluation 2012

Access to DSO

7. Where do you principally access DSO from?
- On campus at Deakin University
 - Home
 - Other
8. Where else do you access DSO from? (Please select any that apply)
- On campus at Deakin University
 - Home
 - Other
9. How do you principally access DSO?
- Desktop computer
 - Laptop computer
 - Tablet device
 - Smartphone
 - Other
10. How else do you access DSO? (Please select any that apply)
- Desktop computer
 - Laptop computer
 - Tablet device
 - Smartphone
 - Other

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DSO Evaluation 2012

DSO learning management system (LMS) functions

11. For each of the DSO functions listed in the matrix below, please answer in relation to the following elements:

- how **important** it is to the success of your studies
- how **satisfied** you are with it
- on **average**, how **frequently** you use/access it

If you do not use a particular DSO function listed in the matrix below, please mark the **three not applicable (N/A) boxes** for that line only and continue to answer for the remaining functions.

	Importance					Satisfaction					Frequency							
	N/A	Not important 1	2	Neutral 3	4	Very important 5	N/A	Not satisfied 1	2	Neutral 3	4	Very satisfied 5	N/A	Never	Less than once a week	Once per week	Once per day	Multiple times per day
Accessing unit guide and other unit information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accessing unit lecture, tutorial or lab notes etc	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interacting with unit learning resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using the unit calendar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading unit News announcements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contacting teachers via Email link	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contacting students via Email link	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	N/A	Not important 1	2	Neutral 3	4	Very important 5	N/A	Not satisfied 1	2	Neutral 3	4	Very satisfied 5	N/A	Never	Less than once a week	Once per week	Once per day	Multiple times per day
Reading contributions to online discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contributing to online discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completing online quizzes/tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Submitting assignments via Dropbox	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receiving feedback on assignments via Dropbox	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working collaboratively in a group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reviewing unit progress with 'View my progress'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using the e-portfolio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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DSO Evaluation 2012

DSO support technologies

12. For each of the DSO support technologies listed in the matrix below, please answer in relation to the following elements:

- how **important** it is to the success of your studies
- how **satisfied** you are with it
- on **average**, how **frequently** you use/access it

If you do not use a particular DSO support technology listed in the matrix below, please mark the **three not applicable (N/A) boxes** for that line only and continue to answer for the remaining technologies.

	Importance					Satisfaction					Frequency							
	N/A	Not important 1	2	Neutral 3	4	Very important 5	N/A	Not satisfied 1	2	Neutral 3	4	Very satisfied 5	N/A	Never	Less than once a week	Once per week	Once per day	Multiple times per day
eLive (Eliminate Live) communication session	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
iLecture (or echo360 trial) lecture recording	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other iLecture recording (eg podcasts etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deakin's social software (eg Drupal, MediaWiki and Gallery2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turnitin plagiarism detection/originality assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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DSO Evaluation 2012

Overall perceptions of DSO

13. For each of the following statements, please indicate your level of agreement

	Strongly disagree 1	2	Neutral 3	4	Strongly agree 5
DSO enhances my learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DSO is reliable and available when I need it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the level of support I received in using DSO in my studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. What are the best aspects of DSO?

15. What are the aspects of DSO that most need improvement?

16. Is there anything that you would like to be able to do in/with DSO that you currently cannot?

17. Is there any additional support/training for using DSO that you would like?

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This is the staff survey - the student survey starts on page 1

DSO Evaluation 2012

This survey seeks information regarding your perceptions and usage of the new **Deakin Studies Online (DSO)** system - that is the **Desire2Learn** learning management system - and all associated technologies used to support learning and teaching at Deakin University.

Demographic information

1. Gender

- Male
- Female

2. Age (in years) at last birthday

- <25 years
- 25-29 years
- 30-34 years
- 35-39 years
- 40-44 years
- 45-49 years
- 50-54 years
- 55-59 years
- 60-64 years
- >64 years

3. With which Faculty/area is the majority of your teaching associated?

- Arts and Education
- Business and Law
- Health
- Science and Technology
- Other

4. Please indicate the type of your employment at Deakin University

- Casual/sessional
- Continuing
- Fixed term/contract
- Probation
- Other

5. Do you use Deakin Studies Online in your teaching?

- Yes
- No

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DSO Evaluation 2012

Access to DSO

6. Where do you principally access DSO from?

- On campus at Deakin University
- Home
- Other

7. Where else do you access DSO from? (Please select any that apply)

- On campus at Deakin University
- Home
- Other

8. How do you principally access DSO?

- Desktop computer
- Laptop computer
- Tablet device
- Smartphone
- Other

9. How else do you access DSO? (Please select any that apply)

- Desktop computer
- Laptop computer
- Tablet device
- Smartphone
- Other

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DSO Evaluation 2012

DSO learning management system (LMS) functions

10. For each of the DSO LMS functions listed in the matrix below, please answer in relation to the following elements:

- how **important** you believe the function is to the success of your students' learning
- how **satisfied** you are with the performance of that function for students
- on **average**, how **frequently** you use/access that function

If you do not use a particular DSO LMS function listed in the matrix below, please mark the **three not applicable (N/A) boxes** for that line only and continue to answer for the remaining functions.

	Importance					Satisfaction					Frequency							
	N/A	Not important 1	2	Neutral 3	4	Very important 5	N/A	Not satisfied 1	2	Neutral 3	4	Very satisfied 5	N/A	Never	Less than once a week	Once per week	Once per day	Multiple times per day
Accessing unit guide and other unit information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accessing unit lecture, tutorial or lab notes etc	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interacting with unit learning resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using the unit calendar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading unit News announcements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contacting teachers via Email link	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contacting students via Email link	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	N/A	Not important 1	2	Neutral 3	4	Very important 5	N/A	Not satisfied 1	2	Neutral 3	4	Very satisfied 5	N/A	Never	Less than once a week	Once per week	Once per day	Multiple times per day
Reading contributions to online discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contributing to online discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completing online quizzes/tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Submitting assignments via Dropbox	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receiving feedback on assignments via Dropbox	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working collaboratively in a group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reviewing unit progress with 'View my progress'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using the e-portfolio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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DSO Evaluation 2012

DSO support technologies

11. For each of the DSO support technologies listed in the matrix below, please answer in relation to the following elements:

- how **important** you believe the function is to the success of your students' learning
- how **satisfied** you are with the performance of that function for students
- on **average**, how **frequently** you use/access that function

If you do not use a particular DSO support technology listed in the matrix below, please mark the **three not applicable (N/A) boxes** for that line only and continue to answer for the remaining technologies.

	Importance					Satisfaction					Frequency							
	N/A	Not important 1	2	Neutral 3	4	Very important 5	N/A	Not satisfied 1	2	Neutral 3	4	Very satisfied 5	N/A	Never	Less than once a week	Once per week	Once per day	Multiple times per day
eLive (Elluminate Live) communication session	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
iLecture (or echo360 trial) lecture recording	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other iLecture recording (eg podcasts etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deakin's social software (eg Drupal, MediaWiki and Gallery2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turnitin plagiarism detection/originality assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deakin's Learning Repository (Equella)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respondus online quiz authoring tool	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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DSO Evaluation 2012

Overall perceptions of DSO

12. For each of the following statements, please indicate your level of agreement

	Strongly disagree 1	2	Neutral 3	4	Strongly agree 5
DSO enhances my teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DSO enhances the learning of my students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DSO is reliable and available when I need it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the level of support I received in using DSO in my teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. What are the best aspects of DSO?

14. What are the aspects of DSO that most need improvement?

15. Is there anything that you would like to be able to do inwith DSO that you currently cannot?

16. Is there any additional professional development/training for using DSO that you would like?

Appendix B: Relationships between elements to ensure effective collaboration/communication

Relationships between elements

ELEMENT	Where is the leadership situated? (formally and informally)	What links each element? (i.e. the connections/relationships)	Is this flow (a) logical? (b) well understood? (0–5 for each)	Are there any gaps? (Yes/No) If 'Yes', where are they? Implications?
Vision				
Strategy(ies)				
Planning				
Budget				
Management – of learning and teaching in general				
Management – of online learning in particular				
Other element – 1				
Other element – 2				
To what extent is leadership (a) recognised by (b) developed by (c) aligned with the quality management of your OLE?		0–5 for each	Comments	

Appendix C: Final round interview questions

BACKGROUND		1	2	3
	Current position? Since when? Prior leadership positions?			
1 DISTRIBUTED LEADERSHIP				
1.1	Do you accept the definition of distributed leadership provided by the team and the differentiation between leadership and management?			
1.2	If not, why not? How would you change it?			
2 THEIR LEADERSHIP				
2.1	On a scale of 0–5 how supportive are you of the concept of distributed leadership? Why?			
2.2	What characterises your leadership?			
2.3	How important is it for you as a leader to deal with/accommodate different viewpoints? How do you know what these are? How do you achieve this?			
3 OLE INITIATIVES (past 3 years)				
3.1	What distributed leadership capacity initiatives/actions/strategies have been implemented over the past 3 years to contribute to the effective change management of your online environment?			
3.2	What has been your role?			
3.3	How effective have these initiatives been in your opinion? [0–5]			
3.4	On what do you base this judgment (i.e. the criteria)?			
3.5	Have there been any impediments to their implementation? If so, what are they?			
3.6	Would you now revise the rating? [0–5]			
4 OLE INITIATIVES (contemplated)				
4.1	What distributed leadership initiatives would you contemplate implementing as you move into the future management of your OLE?			
4.2	How would you go about implementing them for maximum beneficial effect based on past experiences?			
4.3	What do you see as the biggest challenge that your university is facing regarding the OLE? How can you, or distributed leadership, contribute to meeting that challenge?			
5 DISTRIBUTED LEADERSHIP (ending position)				
5.1	Do you see limitations to the current and future possibilities of distributed leadership to contribute to the quality management of your online environment?			
5.2	Why might this be the case and how do you think you might address any perceived limitations?			
5.3	Do you think that distributed leadership might become more or less important in any future change management efforts?			
5.4	Why might this be the case?			
6 ADDITIONAL COMMENTS				