



Higher Education Standards in a Disaggregated Learning Environment

Final report 2016

University of Wollongong

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List of acronyms used

ACPET	Australian Council for Private Education and Training
AQF	Australian Qualifications Framework
COPHE	Council of Private Higher Education
HESF	Higher Education Standards Framework
HESP	Higher Education Standards Panel
ICDE	International Council on Open and Distance Education
MOOC	Massive Open Online Course
OER	Open Educational Resource
OLT	Office for Learning and Teaching
TEQSA	Tertiary Education Quality and Standards Agency

Executive summary

The majority of activity in disaggregated learning environments is, at the time of writing, in the informal or not for credit sphere. However, both globally and locally considerable energy is being devoted to incorporating disaggregated components into formal qualifications. If successful and widespread, as it is likely to be, this will transform formal higher education processes.

This potential transformation invites examination of some fundamental and time-honoured assumptions about higher education qualifications and the curriculum development and quality assurance frameworks underpinning them. There is a strong belief among those academic stakeholders who are committed to the transformation that current ways of viewing curricula and quality assurance will not be sufficiently relevant and sustainable without significant 'reframing' of views of what constitutes higher education. While these issues are outlined and canvassed in this report they continue to be, by their very nature, both evolving and at this point unresolvable. They require us to imagine and embrace the future.

Universities previously held a monopoly over access to scarce information and resources and to qualifications that provided entry to prestigious occupations and societies. This access was traditionally packaged in degree structures, reflected in policy structures such as the Australian Qualifications Framework. Technology, mass education and universal access to information are challenging this paradigm. Universities and registered higher education providers now provide guidance and certification to an expanded student clientele from a diverse demographic and with a range of prior experience. These students are often regarded explicitly, by both themselves and providers, as consumers in a marketplace. The universities' monopoly on the granting of qualifications is increasingly under challenge by some industries and professions who can be more flexible and up to date with rapidly evolving technology, states of practice and knowledge. Hence industry partners, higher education providers and commercial agencies are entering the marketplace offering specialised "chunks" of knowledge and skills leading sometimes, but not always, to credentials or credit towards formal credentials via sometimes, not always authenticated assessment, rather than coherently designed programs leading to traditional degrees or qualifications.

The history of higher education over the past 50 years is liberally sprinkled with populist predictions about technological revolutions that will sweep traditional delivery methods to one side. Nevertheless, we still operate predominantly with variations on a theme that has existed for centuries. Given this history complacency is an attractive prospect, and particularly so in the face of almost evangelical claims for the epochal power of the latest acronym (for example, MOOCs) or retooled concept (for example, badging) or technological capability (for example, big data and analytics). However, in the early to mid-21st century

predictions carry more weight and validity because of the confluence of global, social and economic as well as technological forces. This report attempts to avoid 'capture' by the sometimes extravagant claims made by proponents of transformation, but at the same time give due weight to the considerable forces that make significant transformation quite likely.

Given the mainstreaming of blended approaches, including work-integrated learning and learning in 'non-formal' settings, and the considerable literature that already exists in ensuring their quality this report does not document or review well established practices and guidelines. Many examples of these already exist. Rather, the report provides an overview of the issues and challenges that result not from the special features of digital learning but from the growing trend towards "openness": a desire to expand access to higher education to a much broader population base than has previously enjoyed its benefits. The conjunction of "openness" and market forces poses a particular challenge for regulation and for the rapidly emerging desire by both students and providers to codify and accredit learning that occurs outside formal accredited academic programs of study.

While it is clear that the responsibility for quality assurance rests ultimately and appropriately with the qualifications granting body, regardless of delivery mode or student population, it is less clear how that assurance process will be managed efficiently in a more student-designed and disaggregated course and service delivery environment. This uncertainty is even more pronounced for many higher education providers who lack the large and specialised administration infrastructure that most universities have developed.

This report outlines some existing and possible future developments in disaggregated higher education and identifies the challenges they pose to traditional approaches to quality assurance. The contents of the report are based on extensive national consultation with the public and private sector in Australia as well as with international groups as reported in the mostly "grey literature". It incorporates a Resource Bibliography that summarises the most significant Australasian, European and North American initiatives in the area for those who are interested in following up specific international initiatives. The pace at which these methods and their underpinning conceptual frameworks are evolving is both significant and accelerating, due in large part to the possibilities for borderless collaboration and open sourcing that the technologies offer. Spin-off websites and sub-sites appear frequently in an environment where ideas, networks and collaborations emerge, merge and proliferate organically.

Against this background a report of this nature is inevitably outdated on a daily basis as it is being written. For this reason the report does not claim to capture the status quo or to review specific approaches or methods comprehensively. Rather, it offers a view of the landscape and highlights aspects of the topography that will likely influence higher education's journey into the future. Signposts are provided in the form of URLs leading to fertile fields of research and development.

Most importantly, however, the report underlines issues that the sector has identified as important to ensure that innovation of this type in higher education is fully supported by quality assurance approaches. Almost without qualification Australian providers endorsed the revised Higher Education Standards Framework and identified no significant impediments to innovation arising from it. However, they also identified scope for ambiguity within some of the concepts embodied in the HESF and the AQF and expressed strong sentiments about the importance of ensuring that the regulator (TEQSA) and the sector had a shared understanding of the interpretation of those concepts.

Chapters 1, 2 and 3 described the nature and development of approaches to disaggregation as currently represented in both Australia and overseas. Chapter 4 analyses the potential impacts of developments on each of the domains of the Higher Education Standards Framework and Chapter 5 identifies future priorities of Australia. This report makes no recommendations but it offers some suggestions that might be of assistance in guiding the sector and TEQSA towards areas where future collaborative work could be beneficial. The results of the consultation undertaken for this report lead inevitably to the conclusion that a coordinated approach will be desirable to ensure that Australia is not left behind in the wave of global attention to open education and the considerable implications it will have. Suggestions arising from the project are organised into three categories: suggestions for policy makers, suggestions for TEQSA and HE Standards Panel and suggestions for providers.

Prior to the demise of the Office for Learning and Teaching it was intended that the report would suggest an agenda for funded research and development that could have supported a national shared understanding and collaborative approaches between public and private higher education providers and the regulator. The potential for that to occur under the new arrangements following OLT remains to be clarified.

The nature of the activities reviewed in this project is such that many of the references are published on websites. All URLs were correct and active on May 2nd, 2016.

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Chapter 1 Background

Background and scope

The OLT called for applications for a Higher Education Standards Panel Research Fellowship for the development of a national consensus, informed by existing national and international practice, on the ways in which institutions can demonstrate to themselves and the regulator that their engagement in alternative disaggregated and distributed delivery methods for award courses is compliant with the Higher Education Standards Framework.

The Higher Education Standards Panel (HE Standards Panel) assumed the role of Steering Committee and evaluator for the project until its dissolution and reconstitution at the end of 2015.

The project scope evolved over the first three months of the project during which the issues concerning the sector became more focused. A revised scope and brief was devised and approved by the Panel in November 2014 (Appendix B). The revised scope required that the project undertake an investigation of the nature and implications, for higher education standards and formal higher education programs, of emerging models and disaggregated student participation in learning. That investigation was to include:

- identification of emerging models of disaggregated, open educational process or informal opportunities for study that have implications for formal higher education;
- analysis of the drivers influencing the speed and impact of these developments;
- summary of the challenges to academic quality assurance of these modes of student participation;
- identification of the interaction between the Higher Education Standards Framework and quality assurance in these modes of student participation and areas in which future formulations of standards may facilitate effective responses, or in which current formulations may hinder flexibility and collaboration for disaggregated delivery; and
- review of current national and international approaches to compiling, verifying and assessing evidence of student learning outcomes and to credit mobility, and credentialling in disaggregated learning environments for credit towards formal qualifications standards.

Methods

The project proceeded principally as a national consultation with a series of meetings and workshops with public and private higher education providers and peak bodies held in all states and the ACT. The list of consultations and meetings is provided in Appendix C.

Peak higher education groups in the public and private sector were contacted, and meetings were arranged to request input, and a general request for information and input from the sector was posted on the Higher Education Standards Panel website (Appendix D).

These meetings revealed quite rapidly that some of the lines of investigation envisaged in the original brief for the project were unnecessary. For example, the concept and use of 'alternative' delivery and learning methods have become mainstream. Equally, both the HESF and the internal mechanisms that providers use for quality assurance and enhancement are applicable and successfully applied to commonly used modes of delivery and blended delivery. However, a clear need emerged in these consultations in relation to disaggregation of learning experiences and the foreseeable trend towards learner demand to be able to design their own study programs and credit disaggregated and/or informal learning for formal academic credentials. This need informed the revised scope outlined above.

Due to the emerging and rapidly evolving nature of the practices under investigation a literature review yielded very little. The pace at which these methods and their underpinning conceptual frameworks are evolving is both significant and accelerating, due in large part to the possibilities for borderless collaboration and open sourcing that the technologies offer. Spin-off websites and sub-sites appear frequently in an environment where ideas, networks and collaborations emerge, merge and proliferate organically.

Against this background a report of this nature is inevitably outdated on a daily basis as it is being written. For this reason the report does not claim to capture the status quo or to review specific approaches or methods comprehensively. Rather, it offers a view of the landscape and highlights aspects of the topography that will likely influence higher education's journey into the future. Signposts are provided in the form of URLs leading to fertile fields of research and development.

Regulatory and Standards context

Following the inception of this project the original Higher Education Standards Panel was dissolved and reconstituted through combining the functions of the HE Standards Panel and the TEQSA Advisory Council.

A proposal for revision of the Higher Education Standards Framework (HESF) was developed by the original HE Standards Panel, after extensive consultation with the sector, and presented to the Minister. Implementation of the revised Framework will commence in January 2017. Until then the original Framework continues to underpin the regulatory work of TEQSA.

Consultations with the sector undertaken as part of this project revealed that the revisions of the HESF were welcomed and perceived to pose significantly fewer barriers than the original to the adoption of innovative approaches to teaching and learning. Feedback from

the sector indicates that the lack of impediments posed by the revised HESF is related to the fact that it is focused not on modes of delivery but rather on the provision of supportive and engaging student experience. Some caveats apply to this however, which are discussed in the chapter on future priorities.

Chapter 2 Emerging models and drivers of disaggregated and open education

All groups consulted in the sector emphasised that alternatives to face to face classroom based delivery models have been practised for decades in most Australian universities, particularly in regional and remote locations and for mature aged and postgraduate students. Hence those consulted viewed it as a disservice to judge flexible or blended or “post-traditional” modes of delivery against a “so-called traditional model”.

In the global competitive environment most providers have recognised the need for flexibility and agility, and for forging partnerships with diverse sectors and agencies. Virtually all are capitalising on technology to provide student experiences that are both media-rich and interactive and provide a seamless ‘campus to cloud’ environment with a strong online presence for easy access to learning resources and experience, assessment and feedback, and teachers and peers. Boys (2015) has written an excellent and concise international overview of developments in universities in the foreseeable future and their drivers and implications. Against this background some Australian universities can be considered early adopters.

Caution toward enthusiastic adoption of unbundling or ‘atomisation’ of degrees is, however, very evident. Many academic practitioners refer to the potential loss of institutional pride and responsibility for alumni who bear only their credentials without also the set of experiences that characterise the institution and its values and stated graduate attributes. This reflects very valid concerns about the purpose of higher education and how far we can introduce student and industry driven models of learning before we lose the “essence” of “graduateness”. This issue is addressed in later sections of this report but it is not resolved. It is an issue that requires ongoing vigilance and discussion. What is defined as degree level education has been evolving over many years (for example, medicine, law, nursing, accountancy) and will likely continue to do so regardless of where we try to impose boundaries.

Drivers and enablers of innovation

While a statistically valid survey was not sought for this project it is evident from the consultations that Australian providers are differentiating their views in relation to disaggregated learning. Many are regarding various forms of technology-enabled learning as “business as usual” and see the need for few significant changes to their current practices. There is a small but influential and active group of universities who are leading developments in Australia in micro-credentialling and modularisation, open learning and variations on the theme. Members of this group are trialling and adopting innovations that

may eventually become a core component of their mission and market differentiation. There is also a more generalised interest in participation in MOOCs, in some cases mainly as a marketing or image building exercise but in several cases as an important potential contributor to the flipped classroom concept. Smaller private providers have other more pressing concerns but larger ones are likely to fall under the influence of their international parent bodies and it might be expected that activity in this area will increase. Whatever the level of involvement of individual institutions it is clear that, in many respects, Australia is an active participant in the development of the emerging disaggregated learning environment, particularly in relation to the need to develop approaches for recognising and aggregating non-formal credentials. While a number of projects are underway in Europe it is early days and there is little to be learned from them at this stage. Most of the activity in relation to recognising and monetising disaggregated and open learning is being driven from the more commercially active North American higher education environment.

The key fact that must be acknowledged in this emerging environment is not just that technology has a stronger and more multi-potential presence in higher education but that the capabilities of disruptive innovation have significant implications for the business models of higher education providers and for the standards and regulatory processes underpinning them. This emerging environment is described in many places and needs no detailed rehearsal here. The TEQSA Corporate Plan 2015-2019, in its description of sector wide developments (pp.7-9), provides a comprehensive description of drivers in the Australian context while the international context of technology developments is well described by the New Media Consortium Horizon Report (2015).¹

A European Commission funded project (the Changing Pedagogical Landscape) to examine issues similar to those canvassed in this project in the European community has also identified the drivers for change in a presentation to the EADTU-EU project summit in Brussels (Haywood, 2014):

- *Worldwide changes in delivery modes*
- *The need for financial transparency for teaching – fees vs cost vs prices*
- *Online degrees from anywhere especially 2nd cycle (Masters)*
- *Blended learning in campus-based courses*
- *New providers of higher education in-country and online*
- *Open-ness as a valued attribute in teaching and research*
- *‘Mobile everything’*
- *Social and solo/learning/assessment*
- *Graduate attributes/employability*

¹ <http://cdn.nmc.org/media/2015-nmc-horizon-report-HE-EN.pdf>

Hayward (2014), however, also points to the need to clarify what future higher education is looking for and why (for example, efficiency, effectiveness, and widening access, 21st century skills) and how progress will be measured, being aware of the risk of perverse incentives.

This level of examination of purpose at both national and institutional levels is, as yet, in its infancy with most intellectual effort being devoted to the organisation of networks and platforms and construction of quality assurance infrastructure. Even projects with promising provenance and objectives such as the European Commission funded project on “The Changing Pedagogical Landscape” (CPL)² do little more than describe activities. The CPL project initially examined 8 European countries and extended to 15-20 in 2016. Its main findings reported at the EADTU conference in Hagen Germany in November 2015 are that technology is widely used but usually alongside unchanged pedagogies, there is no evidence that traditional universities are offering flexible options as a matter of course and that innovation is a small fraction of total higher education provision. However, some institutional strategies were commended such as mainstreaming e-learning into academic governance and building an ecosystem for innovation where blended learning can become standard and formative assessment will become more common. The project noted that continuing education and continuing professional development are “new areas” for European universities and that technology offers opportunities in these areas.

The principal enablers of innovation in higher education provision are technological capability and globalisation but the drivers of innovation fall into three broad categories:

- Responses to the global market, the needs of industry and the increasingly competitive nature of entry to the graduate workforce and prestigious jobs. This driver is best exemplified by the increasing number of both private and public higher education providers who recognise the need to be more agile and flexible in response to the changing consumer, regulatory and employment environment. This is also reflected in the emergence of badging and micro-credentialling and the use of MOOCs and nanodegrees to fill identified gaps in knowledge or expertise. Institutions train students for an unknowable and rapidly approaching future world using methods developed over previous centuries. There are many more opportunities for self-education than ever before and graduates need to be opportunistic in finding and exploiting them. Institutions rarely offer opportunities to develop these skills.
- Desire to provide equity of access to educational resources for disadvantaged student groups and global populations. This driver is best exemplified in the

² <http://bookshop.europa.eu/en/the-changing-pedagogical-landscape-pbNC0415435/?pgid=lq1Ekni0.1ISR00OK4MycO9B0000cmH6FamT;sid=9WUNCiLw5X0NdnXWMLuTrUDVuAYTeCUj87Y=?CatalogCategoryID=QN4KABste0YAAAEjFZEY4e5L>

initiatives of the Open Education Resources universities to create an infrastructure that will support universal access to free and/or open education, as well as in the initial impetus for MOOCs. Institutions which have traditionally been involved in distance education have also recognised the opportunities that technological innovations offer to improve the quality of the experience offered to students in remote areas or with limited access to higher education institutions. It is also reflected in Australian and international policy initiatives designed to shift higher education towards a mass education system. Opening the sector to more students with widely divergent backgrounds and experience is a key driver for more flexible opportunities to learn.

- The changing nature of learners and their digital lives. This change is partly due to demographic, technological and social trends but also due to greater emphasis by educators over the last two decades on equity and diversity goals leading to a higher education system serving a mass rather than elite population of students. Lemoine and Richardson (2015) analyse both the personal and educational experiences of today's learners that drive them to seek a different type of learning experience. They describe them as having "constructivist needs and strengths" and preferences for acquiring knowledge and constructing meaning for themselves. In this scenario the instructor is a facilitator of knowledge acquisition rather than a knowledge transmitter. Constructivist tendencies arise not only from the experiences of the "net generation" of students but also from the life experience of mature aged and professional learners who are capable of identifying their knowledge and skills gaps and seeking out experiences to fill them. The student population has changed and there is a recognition and acceptance that students have complex lives. The focus that open education and modular education permits is on the personalisation of learning. Many providers are aiming to provide students with degrees that fit their context so that the outcomes are valued by students for their utility, and so that students have the opportunity to discuss and influence the endpoint of their degree.

Emerging models

The variety of innovative responses to these three main drivers is vast and expanding, especially given the flexibility that is being expected and the diverse missions of higher education providers. Aside from the mainstream approaches to increased flexibility in delivery the initiatives that relate to disaggregation of learning experiences are described in the literature under four broad headings, although there is considerable overlap. These are not discrete methods or categories of delivery but are labels educators have chosen to describe their work:

- Micro-credentialling
- Massive Open Online Courses (MOOCs)
- Open Educational Resources (OERs)

- Personalisation which is the overarching purpose of the preceding three

Micro-credentialling

The advent of badges and micro-credentials is analogous to the development of the current concept of money. Originally, wealth was signified by gold ingots stored in a safe house. Eventually ingots proved unsuitable for agile commerce. Coins and promissory notes of small and standard denominations were created that could be exchanged for goods and services. It is clear that a similar transformation is taking place in higher education. The formal accredited degree (which, by contrast can be defined as a macro-credential) represents the storehouse of gold ingots but it serves less well as the currency of daily commerce. For example, most professional associations and agencies require recertification and have invented their own currency in the form of continuing professional development credits or points. The more time and money industry and individuals expend on providing and accumulating these credits the greater the demand for them to have exchange value towards something else, perhaps a formal qualification.

This desire and demand is beginning to encroach on all levels of higher education provision. Some providers will choose to reject the demand and others will embrace it, both positioning themselves in the market by their respective decisions. It is critical, however, for the students of those who embrace it that methods are developed to ensure the quality and reputation of the qualifications thus constructed. Formal quality assured qualifications are also important in providing confidence to the community and employers that graduates are competent in their respective fields of endeavor.

Oliver and her co-investigators (2016) have coined the term 21C credentials to refer to digital credentials, both macro and micro that can provide granularity, detailed evidence of achievement, 'stackability' in terms of credit and, if appropriately formulated technically are machine readable.

Micro-credentials are claimed to add value in that they provide a convenient and reliable way to share certifications via social media, personal websites and blogs and professional networks like LinkedIn, GitHub etc. Boys (2015, pp. 150-154) provides an overview of the rapidly developing field of repositories for digital badges and micro-credentials. LinkedIn is a ready-made venue for sharing and endorsing achievements, Degreed³ promises to "track and measure your educational achievements including formal (for example, degrees), informal (for example, books read, and conferences attended), and soon, experiential learning". Mozilla Open Badges⁴ are based on an open standard and allow skills and achievements to be verified through "credible organisations". For example, Purdue University builds on Mozilla Open Infrastructure to provide a badging system that identifies co-curricular achievements and contains embedded metadata that guarantees validity and

³ <https://degreed.com/about>

⁴ <http://openbadges.org/about/>

can be displayed across different online environments. The Purdue Passport⁵ is a learning and e-portfolio system that uses digital badges that display user's competencies through the public Passport profile in Mozilla backpack, LinkedIn and Facebook. These are, in effect, a digitised version of certificates and other statements of co-curricular attainment that have been commonplace for some years.

Micro-credentials can be scaffolded towards a formal qualification or, as they are being used by some Australian universities, to certify students' acquisition of co-curricular or generic capabilities such as leadership, mentoring or community volunteering. The Curtin Extra Certificate is one such example⁶. The University of Wollongong's UOWx is another⁷. UOWx adds further value by combining the services offered by the student support team with the information garnered by the learning analytics team to allow early identification of at risk students.

The Open University has developed a system of Badged Open Courses (BOCs) for learners using OU's free educational resources available through its OpenLearn platform. BOCs were introduced in response to an increasing proportion of learners being keen to have their informal learning achievements recognised (Law & Law, 2014). The free BOCs are assessed through the deployment of Moodle quizzes.

An OLT funded collaborative strategic project⁸ led by Beverley Oliver at Deakin University published in 2016, aims to advise Australian higher education providers how to enable students to curate and carry forward digital evidence using micro-credentials, having due regard for educational pathways, business models and regulatory frameworks. The project has developed an evaluative framework and good practice guide for 21C digital credentials, and analysis of twenty emerging micro-credentials.

Commercial agencies have been proactive in establishing services to encourage and optimise digital credentialing. One such is Professional Exam Service, an agency in the US that offers individuals and providers a digital credential service as supplements or alternatives to traditional paper credentials⁹. Digital credentials offer embedded data that verifies certification, authenticates its good standing and provides detailed information about the credential and its sponsor. Proexam's website describes the potential uses of microcredentials:

Micro-credentials can be used to meet a variety of needs for credentialing organizations and credential earners, including:

⁵ <http://www.itap.purdue.edu/studio/passport/>

⁶ <http://graduations.curtin.edu.au/graduate/curtinExtra.cfm>

⁷ <http://www.uow.edu.au/student/life/uowx/overview/index.html>.

⁸ http://www.assuringgraduatecapabilities.com/uploads/4/5/0/5/45053363/better_21c_credentials.pdf

⁹ <http://www.proexam.org/index.php/digital-credentials/micro-credentials>

- *Recognition of specific skills, which may or may not satisfy eligibility requirements for an established credential.*
- *Multiple assessment-based micro-credentials that could be earned and “stacked together” to create the equivalent of an established credential.*
- *Add-on to a traditional credential, reflecting specialized skills or ongoing professional study that extends beyond the credential already earned.*
- *The opportunity for issuing organizations to generate additional revenue with digital micro-credentials for focused areas.*

Stanford based Udacity is reported to have moved away from free online education to short, low cost computer and data science ‘nanodegrees’ developed in close collaboration with technology companies such as Google and AT&T and designed specifically to lead to jobs (Australian Financial Review, 2 February, 2015). Udacity has announced a partnership with Google and Indian conglomerate TATA to expand its nanodegree program to India, an initiative that has probable consequences for international student markets¹⁰. It will tailor classes to Indian students and offer nanodegrees in areas such as Android development and data analyses for \$148 per month with half of the tuition reimbursed following graduation. One thousand scholarships are being made available by TATA and Google and all graduates will be invited to a job fair hosted by Google in India.

Coursera claims that employers are open to hiring people on the basis of their performance in MOOCs as part of the growing trend towards micro-credentials. For example, the Coursera Data Science specialisation is a sequence developed by Johns Hopkins University which consists of nine four week courses and a capstone project leading to a certificate endorsed by both Coursera and Johns Hopkins¹¹. Coursera, launching the ‘Global Skills Initiative’¹² has also partnered with several technology and financial firms (such as Microsoft, BNY Mellon, Cisco) as well as universities (including The University of Melbourne) to offer new classes partially designed by those firms to focus on skills training and professional development. In so doing it is both monetising its MOOC strategy and addressing the growing skills gaps reported by major employers (Belkin, 2015). Open University in the UK is undertaking similar partnerships to deliver tailored learning, for example with the National Skills Academy for Nuclear where they have developed the Certificate of Nuclear Professionalism based totally on feedback from NSAN’s 100 employer members¹³.

Movement in the US towards recognition of the value of course components or units independent of full attainment of a degree is also evident with Christensen et al (2011, p.45) citing the view that “[S]hifting toward recognizing mastery of specific competencies where

¹⁰ <http://fortune.com/2015/09/21/udacity-google-india/>

¹¹ <https://www.coursera.org/specializations/jhu-data-science>

¹² <https://www.coursera.org/gsi>

¹³ <http://www.open.ac.uk/employers/>

time is variable could even open up a path toward the recognition of lifelong learning, whereby people accumulate expertise over time through both formal and informal means.” Lemoine and Richardson (2015) report that “[D]igital recognition for formal and informal learning is being recognized by state departments of education, the U.S. Department of Education, the U. S. Department of Veterans Affairs, HASTAC (Humanities, Arts, Science and Technology Advanced Collaboratory), EDUCAUSE, NASA, NOAA, Mozilla, and supported by the MacArthur Foundation, Microsoft Foundation, national and transnational organizations, professional groups, and businesses suggesting there is a need to promote acquisition of workforce ready skills.”

Potentially these digital credentials are not only cheaper and quicker to obtain than full degrees but they can provide more detailed information about the skills of the holder through a digital archive of experiences and achievements during the course. Digital open credentials can also be designed to make them more ‘machine discoverable’ to assist potential employers in their search for specific skills. With the involvement of highly reputable academic institutions and global industries it would be foolhardy to expect that these developments will not impact on business models of institutions that rely heavily on traditional degrees and fee structures.

MOOCs

MOOCs are an evolving entity that arose as open entry, free, not for credit courses offered on open platforms by established higher education providers. In the early days they had fixed commencement times although now many can be taken to suit the learner’s convenience. They have rapidly evolved towards providing assessment for a fee and a credential that may be accepted by other providers towards formal or non-formal qualifications. Six universities from Australia, Europe, Canada and the US have announced a project to pilot a global credit transfer system in which each organisation’s MOOCs will be formally accredited by partner institutions¹⁴. Around 200 MOOCs are likely to be included in the pilot.

An overview of the main platforms for MOOCs has been provided by Gaebel (2014) in a paper for the European University Association and the UK Department for Business Innovation & Skills. Haggard (2013), produced a useful literature review on the status of MOOCs which provides an overview of conflicting perspectives on their value, their potential impact on existing higher education models, learner experiences and the processes of engaging with business and accreditation issues. The report suggests that while they do provide potential for disruption to existing models this risk has probably been ‘overhyped’ and that there are significant issues around sustainability, quality, equality, financial viability, learning quality and accreditation. The report identifies as a ‘burning

¹⁴ <https://www.timeshighereducation.com/news/moocs-international-credit-transfer-system-edges-closer>

issue' the search for business models and associated sub-issues of scale, monetisation, accreditation for MOOC learning and openness, but that a "process of maturation is in place" such that MOOCs might become a standard element of credentialed university education, "exploiting new pedagogical models, discovering revenue and lowering costs". An international review (Gil-Jaurena, 2013) commissioned by ICDE reported that Europe rapidly followed the US developments in offering MOOCs but that perspectives from the Commonwealth countries, South America, Asia and Africa revealed less interest. This report pointed out the danger of MOOCs leading a new version of 21st century colonisation with developing countries consuming but not producing content for MOOCs. There is an extensive literature on the pedagogy and effectiveness of MOOCs, sufficient to encourage the belief that their uptake will continue to increase (Walker & Loch, 2014; Stacey, 2014; Conole, 2014).

By conventional standards MOOCs have had poor completion rates with only small fractions of the massive initial enrolments proceeding to completion of either the material or any available assessments. A review of MOOCs offered on the Open University Futurelearn platform in 2014 found that 13% of those who signed up actually completed the course (Parr, 2014). This has been cited as a criticism although proponents of the open learning movement assert that any engagement with a learning experience at no cost to the individual or indeed to the provider cannot be a bad thing. Many people use MOOCs as a trial before taking the plunge and enrolling in formal courses. Many use them to satisfy an interest but have no desire to earn credit. Increasingly, however, providers are seeking to monetise their investment and learners are seeking to earn credit so a burgeoning market in assessment and credentialing of MOOCs is occurring as is their increased use as part of formal degree programs by some providers. Kenneth Green (2013) has written for the Association of Governing Boards of Universities and Colleges (USA) that "the main policy issue confronting most institutions regarding MOOCs will be to accept or not accept their certificates for course credit".

MOOCs have progressed from being a novelty to being a mainstream communication and learning device. For example the Australian Financial Review reported in June 2015 that OpenLearning¹⁵, an Australian startup and competitor with Coursera had won an Australian Government contract for provision of a MOOC on regulatory impact analysis for public servants and the general public. OpenLearning also provides online platform services for the University of New South Wales and has a contract with the Malaysian government to deliver 15% of the country's public university courses as MOOCs by the end of 2015, increasing to 30% by 2020 (Australian Financial Review, June 4, 2015¹⁶).

¹⁵ <https://www.openlearning.com/>

¹⁶ <http://www.afr.com/technology/>

The University of New South Wales provides a rationale for its involvement in MOOCs on its website¹⁷. UNSW hopes to learn from the experience to improve course quality, to conduct research into teaching and learning, to support remediation in areas such as English language, maths and science, to deliver non-accredited continuing professional education, to enable admission by providing prerequisite material and to market and recruit students through showcasing high quality programs and teachers. UNSW has a non-exclusive partnership with Coursera to develop and deliver MOOCs. Coursera provides the platform hosts content, supports operations and design and provides learning analytics. It also “explores monetization models”.

The Open University UK is using its MOOC platform Futurelearn to deliver Open University courses to learners in over 190 countries and has over 40 institutional partners including two Chinese and several Australian universities. While none of the courses is yet accredited participants do receive a Statement of Participation and, upon sitting exams in designated exam centres can be awarded a Statement of Attainment. Some partners including Monash University are considering the award of credit towards formal qualifications for successful attainment in the MOOCs (Trounson, 2014).

One aspect of MOOCs that the Open University (and others) has emphasised is referred to as “massive open social learning” which incorporates online social networks into MOOC coursework – these types of MOOCs have been described as “connectivist MOOCs” to distinguish them from MOOCs which have a more directed pedagogical approach (Kennedy, 2014). Connectivism exploits the ‘network effect’ meaning that the value of the experience increases as the network grows. The intent is that thousands of students can engage in discussion and creation of shared projects. The OU’s Innovating Pedagogy 2014 Report (Sharples et al, 2014, p.3) points out that “A challenge to this approach is that these learners typically only meet online and for short periods of time. Possible solutions include linking conversations with learning content, creating short-duration discussion groups made up of learners who are currently online, and enabling learners to review each other’s assignments. Other techniques, drawn from social media and gaming, include building links by following other learners, rating discussion comments, and competing with others to answer quizzes and take on learning challenges.” It is clear that the incorporation of these processes into assessment protocols will pose huge challenges. Connectivist MOOCs also have implications for the effectiveness of the student experience. Sharples et al (2014, p.10) draw attention to the fact that many participants in connectivist MOOCs experience the feeling of being “lost in hyperspace”, not knowing where they are or where to go next. This signals the need for quite sophisticated approaches to signposting in design and research to underpin it. This need has been recognised and proponents of blended learning

¹⁷ <https://teaching.unsw.edu.au/moocs>

are engaged in very active staff development. For example there is a MOOC¹⁸ that promises to teach online university and college teachers how to “humanize” online instruction and increase “instructor, social and cognitive presence” in online teaching.

Coursera has shifted focus to rebuild its platform to allow universities to use its courses on demand for teaching in place of conventional lectures (Australian Financial Review, 2 February, 2015). This will permit large scale ‘flipped learning’ allowing lecturers to spend more time explaining and discussing rather than dispensing information. The universities of Melbourne, NSW and Western Australia all supply Coursera with course material. Academic teachers will also be able to access data on student progress and performance in multiple short tests carried out during the courses.

There are also emerging examples of course design that incorporate specified open source learning experiences such as those offered by Open2Study, the Open Universities Australia MOOC platform (for example, Wilson et al, 2014). These materials are subject to rigorous review under the standards that apply to third party providers. Some universities are also experimenting with modularising curricula, particularly in postgraduate degrees. These experiments include modularising assessment so that when learners feel ready they can enrol in the assessment module and pay the course fee at that point. Students use e-portfolios to evidence learning across a range of modules. This approach is largely at the postgraduate level at the moment partly because the requirements for Commonwealth Supported Places do not support this type of breakdown in delivery mode.

Significant effort is being expended to ensure the quality of MOOCs, for example the European Foundation for Quality in e-Learning (EFQUEL) MOOC Quality Project (Creelman et al, 2014). Concurrently, efforts are underway in several initiatives to gain a better understanding of the variety of motivations, social contexts, learning profiles and career development of MOOC participants, for example MOOCKnowledge, a 3 year funded study to develop a knowledge base for European MOOCs. The study is surveying participants in MOOCs offered by European providers who are members of OpenUpEd¹⁹. OpenUpEd has also developed a quality label²⁰ for MOOCs tailored to both e-learning and open education. The label focuses on benchmarking for institutional improvement and is intended to be integrated with an institution’s own quality processes. OpenUpEd provides a portal for access to over 300 MOOCs that have the OpenupEd quality label and more than 100 of which have an option for assessment for credit.

Hayes (2015, p.13) identifies 2 fundamental questions for providers to consider in relation to quality assurance:

1. Do MOOCs follow sound pedagogy and design approaches to online learning? and

¹⁸ <https://www.canvas.net/browse/canvasnet/courses/humanizing-online-instruction-1>

¹⁹ <http://is.jrc.ec.europa.eu/pages/EAP/OpenEduMOOC.html>

²⁰ <http://www.openuped.eu/quality-label>

2. What new pedagogies or organisational mechanisms might be required to ensure quality learning experiences?

The framework in which these questions are applied depends on the context of the participation. The trajectory of MOOCs is an interesting one having expanded from the provision of open access by established universities to the development of high quality educational resources by commercial consortia that are being used by universities and other agencies such as government departments, as a cost effective way to enhance enabling programs, courses and inservice training.

The stage is set for mixing, matching and cross-credentialling in ways that have not been possible prior to the digital revolution. Not only do digital technologies make seamless and interactive learning experiences possible but they have the means to maintain and track student performance data as well as quality improvement data for the courses on a scale which has, potentially, massive statistical power which could be turned to the benefit of quality assurance and quality improvement.

Open Educational Resources

Open educational resources (OER) are any type of educational materials released with an open licence or into the public domain so as to allow a user to legally and freely copy, use, adapt, and share the materials. It is important to note that OER is not synonymous with online learning, eLearning or mobile learning although most are shareable in digital format (UNESCO & COL, 2015). UNESCO has an active program encouraging the adoption of OERs and their development into MOOCs in Africa and Asia²¹ and in collaboration with the Commonwealth of Learning has produced a set of Guidelines for Open Educational Resources (OER) in Higher Education (2015) and A Basic Guide to Open Educational Resources (OER) (Butcher, 2015). Nagashima (2014) has reviewed the factors affecting success for open education initiatives and found six factors over three categories:

1. Organisational factors – brand/reputation, funding
2. Pedagogical factors – focus of subjects – meaning learners’ objectives depend on the subjects offered, interactivity – the ability to be connected on and off line.
3. Social factors – social acceptance of open education in the local culture, localisation through language translation and local discussion groups.

The potential for OERs to be a valuable tool for higher education institutions has been recognised for some time. In 2012 The UK Higher Education Academy and JISC commissioned a report on Promoting UK OER internationally (Thomas et al, 2013). The project identified a number of potential benefits to UK HE providers (p.3):

²¹ http://www.unesco.org/new/en/communication-and-information/resources/news-and-in-focus-articles/all-news/news/promoting_open_educational_resources_across_indonesia/#.Vj1zwwqTf5x

..it is an opportunity to promote their brand and 'offerings' through innovation in learning and teaching and to widen the opportunity for international student markets to test and trial OER when making informed destination decisions and University application preferences. OERs can be an effective way of penetrating markets through user engagement in external open access sites, social networks and innovative channels for downloading open resources. A key benefit of promoting OERs is that networking potential can act as a catalyst for nurturing relationships across cultural boundaries among academic professional communities, partners for research, learning and teaching exchanges, and for marketing university courses/ programmes to international student audiences.

Several Australian universities are involved in an international group known as Open Education Resources universities (OERu)²². Learners can enrol in university level courses online for free and submit assessments for a reduced fee when ready to have their learning recognised for formal academic credit. Formal assessment services are optional and provided on a fee for service basis by partner institutes. All courses are based on open educational resources and openly accessible materials on the internet and individual courses can be recognised as transfer credit for a range of qualifications offered by the partners. Micro Open Online Courses (mOOCs) are sub-components of a full course usually offered over a 2-3 week period and after successful assessment a Certificate of Achievement is awarded. Recognition of Prior Learning (RPL) can be gained for mOOCs towards full courses offered by partners. Learners may choose to participate as self-directed – opting in and out with no minimum participation; as active participants with certification on achieving the minimum participation requirements of the course, or as full academic credit students through assessment. The planning processes of OERu can be followed live at the OERu Open planning pages.²³

Open Education Resources are also being used increasingly as resources in formal educational programs. The UK National Union of Students conducted research into students' views on using them in higher education and found a high level of acceptance (NUS, 2014). Over 70% of students reported using OERs and expected to increase their use in the future and the majority of students felt that they had a positive impact on the quality of the experience. There were suggestions, however, that many students needed assistance in locating and evaluating OERs.

The Open University has expanded its program of research into Open Educational Resources with the release of new badged open courses (BOCs) through its free platform OpenLearn²⁴. The digital badge is available free on completion of the course and a Statement of Participation can also be downloaded and printed. Currently OpenLearn offers 800 free

²² <http://oeru.org/>

²³ <http://wikieducator.org/OERu/Home>

²⁴ <http://www.open.edu/openlearn/about-openlearn/try#Badged%20open%20courses>

short courses which offer downloadable activity records but the digital badges and statement of attainment for BOCs are a different marker of achievement in that the latter require learners to have not only read the material but also to have passed online quizzes. This initiative is an important contributor to Open University's equity, access and community engagement mission and has been shown to provide significant economic (through follow on enrolments) as well as reputational benefit to the University (Law, 2015).

By definition OER is free and therefore has limitations in a commercial environment. It finds its fullest potential in the context of access, equity and engagement, although it can also serve as a marketing and recruitment tool. It is a core priority for agencies interested in developing the educational and skills potential of disadvantaged population groups and third world economies. UNESCO and philanthropic foundations have a range of initiatives in partnership with providers targeting countries in Africa, Asia and South America.

Personalisation

Learning contracts and individual study plans are not new and have been used in Australia and internationally for decades. The expanded use of technology in education has, however, permitted an increased level of sophistication. The likely result of this is that all higher education institutions will, in the foreseeable future be leveraging their learning management platforms, social media and their learning analytics capacity to enable students to carry with them through their learning trajectory multi-dimensional 'smart transcripts'. These transcripts will document and provide links to evidence for their achievements in both curricular and co-curricular fields. Along with this capacity will grow the capacity for students to design their own degrees, either through presentation for credit of portfolios of non-formal and experiential learning or through construction of programs from a number of providers offering open learning or online blended units.

For example the University of Connecticut offers an individualised undergraduate major²⁵ that allows learners to create a program of study to fit their own specific interests. This is particularly encouraged where learners' interests cross disciplinary boundaries. The student submits a formal proposal which is approved by the 'Individualised Major Advisory and Admissions Committee'. The program was established in 1974 and has over 2000 graduates. Similar programs operate in a number of US Colleges and universities. For example, the Gallatin School of Individualized Study at New York University provides a liberal arts education which responds to the "needs and interests of a special kind of student – focused, intelligent, disciplined, creative"²⁶. The University of Indiana also offers an individualised major or minor²⁷ where students create multidisciplinary programs of study that explore topics of their choosing. All of these programs have rigorous processes

²⁵ <http://iisp.uconn.edu/about-the-individualized-major/>

²⁶ <http://gallatin.nyu.edu/about/how-gallatin-works.html>

²⁷ <http://www.indiana.edu/~imp/>

for admissions, selecting topics, mentors and drafting and approval of applications. They are not an “easy option”.

The University of Chester in the UK, through its Centre for Work Related Studies (CWRS) offers a ‘Work Based and Integrative Studies (WBIS) program²⁸ which has been commended by the UK Quality Assurance Agency for Higher Education (QAA) and Higher Education Funding Council for England (HEFCE) for its flexibility. The degrees allow students to negotiate and choose what they learn and the title of their degree; they are work-based in that students learn through real work activity, and are facilitated at a distance. It offers a range of awards up to Masters level. Credit can be negotiated for study from MOOCs where students can demonstrate that they have applied the learning to their work. A recurring theme is the need to ensure that students who have completed study elsewhere actually have the appropriate level of competence for which they are seeking credit. Registered applicants for the program work with a faculty specialist to create or plan a portfolio of learning from free online courses for up to two thirds of the credit for a Bachelor’s degree. The team of accreditation specialists in CWRS also helps to accredit corporate in-house training, practical learning, work-based projects and employee skill development.

Another option for personalisation or customisation is offered by the growing use of learning analytics to identify students at risk and, through electronic means, to communicate with them even in large class situations. Purdue University Course Signals²⁹ is an application that detects early warning signs of students’ learning behavior before they reach a critical point and alerts instructors to send messages providing customised feedback. Learning analytics also offers the opportunity for learner segmentation in terms of their expectations, preferences and personal characteristics such as demographics and behavioural traits. Many Australian universities are exploring these opportunities as well. Learning analytics is a developing science worthy of its own report. Those interested to understand its potential uses and implications are referred to an excellent Working Group Paper developed by Educause³⁰ which outlines the wide range of strategic purposes for which the performance data produced in providers’ IT systems can be used. An OLT Report on learning analytics completed in 2014 is also referenced in the Resource Bibliography in Chapter 6 of this report.

Unbundling in the broader context

A number of institutions have arisen, for example Alison.com,³¹ (a MOOC engine that describes itself as a “global social enterprise” founded in Galway Ireland). Alison.com offers assessments and Alison credentials (certificates and diplomas) based on aggregated online material developed by unrelated providers and licensed under the Creative Commons.

²⁸ <http://www.chester.ac.uk/undergraduate/wbis>

²⁹ <http://www.itap.purdue.edu/learning/tools/signals/>

³⁰ <http://net.educause.edu/ir/library/pdf/ewg1510.pdf>

³¹ <https://alison.com/company/about/>

Alison claims to have 5 million learners in 200 countries and 600,000 graduates. The nonprofit US based Saylor Academy³² has an open learning philosophy and curates OER materials in developing courses and encouraging adaptation and remixing through Creative Commons Attribution licensing. Saylor Academy has credit transfer arrangements in place with the ACE Alternative Credit³³ project and several American colleges and universities. Saylor offers alternate final exams with low fees for exam proctoring and transcripts with guaranteed credit through a number of schools and many others who will consider credit. The promise is that learners can earn up to a full year of tuition free credit transferable to a number of partners. Saylor itself does not give credit but works with partners who do. Learners take the course online, sit the credit recommended exam in proctored conditions and their transcript is then sent to the College for consideration of credit. Edukart³⁴ located in New Delhi bills itself as “India’s leading education marketplace” with over 2,500 courses ranging from coaching through K12 to certificate, diploma, degree and postgraduate degree. They promise to “connect” students with premium course providers and help them to make an informed career decision and provide access to more than 100 leading Indian and international course providers. Educateme360.com offers similar services in China.

Unbundling need not necessarily relate only to the delivery and assessment of academic content. There is significant potential to outsource co-curricular components that bear directly on the student experience as well.

A well-known global company Pearson³⁵ has a set of strategies that encompass partnering with higher education providers globally (including Australia) to improve student success through improving the first year experience (Brownell & Swanner, 2010); assessing and developing 21st century skills and competencies; accelerating completion rates (Attewell et al, 2006); improving learning outcomes and pass rates/retention through course redesign³⁶ and online program management which provides comprehensive support for online learning programs³⁷. Pearson has contracts with Australian universities (Barnett, 2015) in which they provide ‘Student Support Teams’. Each online student has a dedicated adviser who stays with the student throughout their enrolment in a relationship that engenders trust and understanding of needs. They provide study time planners to help students develop a realistic understanding of requirements. For students who decide to defer they provide support for a return to study. The aim is to provide a sense of community and connection

³² <http://www.saylor.org/>

³³ <http://alternativecreditproject.com/>

³⁴ <http://www.edukart.com/about-us/>

³⁵ <http://www.pearsoned.com/higher-education/topics-in-higher-education>

³⁶ <http://www.pearsonhighered.com/courseredesign/index.html>

³⁷ <http://www.pearsoned.com/higher-education/topics-in-higher-education/online-and-blended-learning/online-learning-services/online-program-management/>

through personal contact with students. The advisers do not take on an academic adviser role but are support advisers with the aim of increasing retention and student completion. This type of hands-on per capita specialised support business model may increase the competitive pressure on smaller providers of online and blended learning.

Developments have also been reported³⁸ in accreditation where organisations external to the academy such as professional associations and some consulting businesses are beginning to seek an accreditation role for the growing variety of non-traditional academic offerings. The US government has recently announced an experiment to provide federal financial aid to selected non-accredited education providers who partner with an accredited college and a third party quality assurance entity.

Other third party services relating to assessment of credit for accreditation purposes and assistance with identification of learning needs are discussed in following sections of this report.

Summary

Activity in all of these new delivery models is well advanced and the subject of considerable research and development effort globally. While not all institutions will choose to participate equally in the opportunities they offer a significant proportion will be involved in at least some aspects. The costs and complexities of managing the infrastructure and the policy and regulatory environment are significant and this points inevitably to the development of collaborative enterprises which are also likely to be at the global level.

Momentum appears to be increasing and it is also inevitable that Australia will eventually need to formulate a collaborative response to not only ensure the maintenance of quality and reputation in Australian higher education but also to ensure the sustainability of its higher education markets and business models. This conclusion is also reinforced in another OLT funded study completed during 2015³⁹.

³⁸ <https://www.insidehighered.com/news/2016/03/18/groups-seek-become-quality-reviewers-boot-camps-online-courses-and-other-noncollege>

³⁹ <http://openedoz.org/resources/>

Chapter 3 Compiling and assessing evidence of achievement for credit mobility

A fundamental issue accompanying the desire or demand for incorporating disaggregated learning experiences into formal qualifications is the ability to develop rigorous and feasible methods for assessing and awarding credit for a potentially broad range of non-formal learning. At the most basic level this is, in principle, no different from recognition of prior learning or credit transfer, both of which are widely practised in Australia and internationally. The characteristic that makes it potentially more complex into the future is the scale and diversity of learning experiences that may increasingly be presented for credit assessment.

In Australia the AQF Qualifications Pathway Policy⁴⁰ provides guidance for credit transfer and RPL. The AQF Explanations paper⁴¹ states that “RPL involves organisations undertaking an assessment of each individual who applies to determine the extent to which individual previous learning is equivalent to the learning outcomes of the components of the destination qualification”. The conditions under which this should happen are further expanded in the AQF Qualifications Pathway Policy Section 2.1.6.

TEQSA’s Guidance Note on equivalence of professional experience to academic qualifications⁴² provides advice for providers in relation to the equivalence of qualifications of teaching staff but does not include advice for providers in relation to assessing the equivalence of professional experience for academic credit for students. Nevertheless, the advice in the TEQSA guidance note could be applicable in both contexts. The Note advises the need for clear policies, in particular the specific criteria for sufficiency, an assessment of how the experience relates to appropriate learning outcomes at the required AQF level and the evidence that might be considered, for example awards or leadership roles, benchmarking of experience against the learning outcomes of the course and how the policy is communicated to potential applicants. This will become a topic of concern as requests for credit for non-formal learning experiences become more widespread. A foreseeable outcome will be the imperative to develop more granular, albeit labour-intensive, approaches to assessing RPL.

As part of assessment for registration TEQSA seeks information on RPL policies and implementation from existing and new providers. All Australian universities have well established and published policies and practices for determining credit for prior learning experiences and most have codified agreements with specified articulation partners. Some

⁴⁰ http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF_pathways_jan2013.pdf

⁴¹ <http://www.aqf.edu.au/wp-content/uploads/2013/06/RPL-Explanation.pdf>

⁴² http://www.teqsa.gov.au/sites/default/files/EquivProfExpGNFinal_0.pdf

universities have specified a maximum amount of credit that can be granted for study at another institution but this quantum is not consistent across institutions.

Most private higher education providers have articulation arrangements in place and most offer credit for prior study. They are required to have explicit policies and procedures in place to satisfy TEQSA registration requirements. Some private providers, especially those who operate in the creative industries, have a specific policy not to offer RPL or credit transfer.

Is there a need for more guidance on RPL and credit transfer standards?

There is widespread agreement among Australian providers, both public and private, that a “one size fits all” mandated approach or standards for RPL is not desirable and that each institution should develop its own approaches, including decisions to outsource the work, as long as all processes are well documented and subject to equivalent quality assurance processes as normal assessment. The key factor is to ensure that each institution can justify its approach and provide evidence that the learning outcomes have been assured.

However, a consistent theme emerged during national consultations with providers for this project. Many respondents raised the need for national discussion around the whole domain of RPL. Several providers reported being “undercut” by the amount of RPL offered by competitor institutions. The greatest criticism was leveled at some universities who are reported to offer more credit than many of the private providers feel is appropriate. Institutions which offer more credit for the same prior learning are de facto offering students a discounted qualification in a very competitive market. In response to this competitive disadvantage some academic decision-makers report feeling “pressured” by their institutions’ marketing departments to offer more credit.

In general, all providers report that requests for RPL or credit transfer gained through disaggregated study units would be treated in the same way as other decisions relating to credit in accordance with the AQF Qualifications Pathway Policy. Decisions are made on the basis of evidence of learning outcomes, volume of learning, content and assessment. There is acknowledgement that while the best assessment of claimed prior learning would be a review of work actually produced by the student this is difficult to do in large numbers and requires considerable resource in the form of academic judgement equivalent to a normal academic assessment. A TEQSA guidance note on assessment of prior experience for academic credit could be useful and could incorporate general principles such as those supplied to this project by a number of universities:

- The institution must have definite policies and procedures in place for managing RPL and Credit transfer arrangements. This should offer sufficient

clarity on what is required when considering such requests to manage student expectations of entitlement to the credit.

- It may be necessary for institutions to have a policy if they wish to take a particular stance on what will and will not be accepted. If it is possible, a list of what and who is considered acceptable and/or unacceptable may also help.
- The institution's management, policies, procedures, systems and governance practices should be able to record and provide on request the necessary evidence.
- The learning outcomes and the verification of those outcomes (that is, assessment) must be assured as a key safeguard and quality control measure.
- Learning must be relevant and current and have a relationship to the learning outcomes of the course of study for which credit is sought;
- Granting credit must not impinge on the integrity or achievement of course of study outcomes or discipline requirements;
- Credit assessment must be made on the basis of equivalence of learning outcomes, volume of learning, content (depth and breadth) and learning and assessment approaches that validly assess learning objectives;
- Credit assessments must be evidence-based and transparent;
- Steps must be taken to verify the integrity of the assessment and the identity of the student completing those assessments.
- As with all assessment, decisions should be subject to moderation and benchmarking and internal audit/review of courses to quality assure RPL frameworks and decisions.
- Managing expectations could become more of a challenge in the Open Education Resources and MOOCs environment, where students undertake units from what they perceive as prestigious institutions, failing to recognise that these are not accredited studies that will provide the recognition for credit/exemption/advanced standing. In managing this it will be important to communicate to students about expectations and help students to understand what is available to them in the market.
- Institutions should have processes in place to provide evidence that their policies are working through analysis of student cohorts from different pathways progressing towards and achieving course learning outcomes and other indicators of difference (for example, retention, progression, completion, GPA average and graduate destination/performance).
- Institutions could develop rigorous approaches that are easy to administer and simple for prospective students ideally through developing risk profiles rather than using case by case determinations. Analysis of position job descriptions and time in role could inform this work.

Providers have traditionally found RPL to be labour intensive and the emergence of disaggregation could offer the opportunity to develop more feasible and scalable approaches. A more complex business model that involves different types of providers and assessment agencies may well require revised standards that allow for uncoupling the academic roles involved, although this may run foul of the current legislation and TEQSA's unsupportive view on "assessment houses" as outlined in the TEQSA guidance note on eLearning and compliance with the Threshold Standards⁴³. This guidance note will clearly need to be revised in light of the new HESF due for implementation in January 2017, not only because they are now defined differently, but also because the main guidance in the note relates to MOOCs, and expanded considerations may be necessary given the developments outlined in this report.

Emerging approaches for recording validated achievement

Several approaches are emerging that allow electronic recording of validated achievements so that the student can carry them forward to new tasks or qualifications which can be more easily compared for equivalence to formal subject content and learning objectives. These approaches enable not only validated digital records of co-curricular and curricular achievement but also personalisation and a public record of the learner's "learning biography". For example the UK Higher Education Achievement Report (HEAR)⁴⁴ is an electronic document produced by higher education institutions to provide a record of student achievement including academic work, extra-curricular activity, prizes, voluntary work and offices held. All records are verified by the institution and are available to the student for download during their enrolment and afterwards. Pursuing a more broadly accessible electronic record IMS Global Learning Consortium⁴⁵ is developing a standards framework for archiving metadata incorporating what was required for achieving specific levels of competency. They are developing a prototype web-based "eT" extended transcript which they describe as "a new transcript for the 21st century" and "an important first step toward a web-enabled and learner-centred academic credentials ecosystem" targeting the needs of learners, higher education institutions and employers. The Digital Student Data Ecosystem project has 20 Australian and New Zealand university participants on the Digital Student Data Reference Group which provides oversight, as part of the international Groningen Declaration network⁴⁶, to ensure flexible delivery of a digital replica of each university's academic records and a sector wide approach to recognising difference but resourcing for scale to minimise the impost on individual universities (Manahan, 2015).

In the United States a 'Connecting Credentials partnership' has been established in recognition of the need to "develop clear ways to help all stakeholders understand [post

⁴³ <http://www.teqsa.gov.au/sites/default/files/TEQSAeLearningInformationSheet.pdf>

⁴⁴ <http://www.hear.ac.uk/about>

⁴⁵ <https://www.imsglobal.org/initiative/enabling-better-digital-credentialing>

⁴⁶ <http://www.groningendeclaration.org/>

secondary] credentials’ meaning and value for different purposes” (Lumina Foundation, 2016, p.3). The multi-sectoral partnership is in its early days but envisages a “high-functioning, thriving and relevant credentialing system” which necessitates developing a common language to explain credentials in terms of competencies, using technology and real-time data to empower credential users, creating “nimble” quality assurance processes, developing scalable ways to engage employers and building credentialing pathways to increase equity.

Credentialing

Deakin University and several other Australian universities are in the early stages of developing policies and procedures for the use of digital microcredentials. For example, Deakin has a policy covering ‘Deakin Hallmarks’, what they are, how they are assessed, and how they operate as recognition of outstanding achievement and graduate attributes related to employability. Deakin offers students DeakinSync, an “adaptive, personalised digital learning environment” which enables them to create, curate and share digital evidence of achievement and employability outcomes⁴⁷. These credentials signify outstanding achievement and incorporate student work that provides evidence of achievement, although Hallmarks are non-credit-bearing and are whole of degree level awards similar to prizes.

QUT has initiated a project called ‘Transform’ to re-imagine its approach to corporate and continuing education and enable and support graduate pathways⁴⁸. It leverages emerging pedagogies and learning media to identify personalised learning ‘chunks’. These chunks might include the content, the learning or teaching processes and platform and/or the assessment depending upon the learners’ preferences and needs. Modules that are well designed and can show how they articulate into credit bearing ‘chunks’ provide the assessment framework to support decision making. These modules can be accessed anytime, anywhere by any student and require no application for admission. If learners without formal entry qualifications can demonstrably ‘pass’ the assessment modules through continuing professional education and these are clearly linked to either units or the course learning outcomes, then they have provided evidence of learning to enable articulation into the course or even granting the award. It requires decisions about equivalence of non-formal or informal learning, particularly acquired through roles and professional practice and determining entry levels both cognate and non-cognate. Several faculties have undertaken an analysis of position descriptions, for example in the public service, to inform the framework and determine what kinds of non-formal/informal learning could be used as evidence particularly for articulation into graduate certificates which then become pathways into higher qualifications. RMIT introduced a similar project called the “Learning Segments project” in 2012 which aimed to widen access and participation through

⁴⁷ <http://www.deakin.edu.au/deakinsync>

⁴⁸ <http://quttransform.blogspot.com.au/>

work based learning in masters coursework programs for learners who were also working professionals⁴⁹.

‘Transform’ is currently only addressing the postgraduate market and is in the testing stages. Initial testing based on the behaviours and survey of 500 participants and a 300 person population study conducted separately from the test indicate that ‘assessment as learning’ is important. This finding has led to the suggestion, by the team responsible for the project, that modular learning should be focused on assessment with only sufficient content to ensure adequate preparation for the assessment. Formal completion of the content is not required but the process should contain formative quizzes and exercises. From ratings of the learning environment the most compelling rating was given by participants to formal assessment of their work by an expert and to their achievement being credentialed by a reputable university provider. Presumptively innovative factors in the project; online; easily accessible, low hurdle entry, social learning; were judged by participants as merely routine expectations.

Another personalised approach to creating pathways is exemplified by a partnership between the University of Southern Queensland and Engineers Australia (Dowling, 2014). USQ offers a Master of Engineering Practice by distance education which allows engineering technologists (2-3 year diploma qualified) to become professional engineers. Their workplace experience is used to demonstrate competence in at least 4 of the 12 units in the program although most are granted credit for 5 or 6 units. The first course is a self-assessment portfolio where students assess their prior learning against the set of graduate outcomes and then develop a plan to demonstrate all of the graduate outcomes by a combination of coursework and narratives in the Workplace Portfolio. The plan is negotiated with staff and becomes the student’s Pathway to Graduation Plan (a learning contract). The increasing use of validated digital credentialing offers advantages in the use of portfolios for assessment of prior experience for credit, although there is still some way to go in developing universal and international mechanisms to allow confidence in such credentialing.

Credit transfer networks

One such example is the OERu which has a Standing Committee on credit transfer to oversee the OERu Guidelines for credit transfer and course articulation⁵⁰ within the network. This is called the OERu transfer system which:

- Lists the partners which offer summative assessment services for OERu courses leading to transcript credit at the sending institution;
- Lists the credentials for which transcript credit of OERu courses can be applied at the sending institution;

⁴⁹ <http://mams.rmit.edu.au/z3m8s519pt2mz.pdf>

⁵⁰ http://wikieducator.org/OERu/Planning/OERu_credit_transfer_and_course_articulation_guidelines

- Lists the partners where transfer credit of OERu courses can be applied at the receiving institution;
- Lists the credentials for which transfer credit of OERu courses can be applied at the receiving institution;
- Communicates pre-requisites and/or local residency requirements for award of the credential at the conferring institution.

The work done by OERu on inter-institutional reciprocity could serve as a model for other networks of providers to adapt or use.

Portfolios, challenge tasks or examinations

Another approach is for agencies or institutions themselves to develop services that provide challenge tasks or capstone assessments or portfolios related to specified learning outcomes. Students could undertake a range of open learning experiences in a variety of contexts and then undertake a challenge task for assessment. This type of opportunity is offered by Excelsior College in the US that specialises in online education for mature aged and professional learners⁵¹. Excelsior College provides a “credit by examination program” and the successful completion of the Excelsior Capstone course. The UExcel program is offered in a computer based format at thousands of test centres globally and contributes to keeping the students’ costs down by, among other things, minimising the number of credits needed to graduate. Excelsior’s philosophy is “What you know is more important than where or how you learned it”. Here too the institution granting the credit is responsible for the assessment of prior experience.

Thomson Rivers University in British Columbia has a well-established process for Prior Learning Assessment and Recognition (PLAR)⁵² which allows learners to earn academic credit towards their Open Learning program for learning from life and work experience through three possible routes:

- A credit bank for credit from pre-assessed training from selected employers, training organisations or continuing studies programs
- Portfolio based PLAR assessment – examples of both competency based and course based portfolios are provided.
- Course challenge exams

State University of New York Centre for the Recognition of Experiential and Academic Learning (SUNY REAL)⁵³ evaluates learning for college or university level credit. To do this it uses the Global Learning Qualifications framework (GLQF)⁵⁴ which was developed with a

⁵¹ <http://www.excelsior.edu/about>.

⁵² <http://www.tru.ca/distance/plar-ol.html>

⁵³ <https://www.esc.edu/suny-real/>

⁵⁴ <http://www.esc.edu/suny-real/global-learning-qualifications-framework/>

Lumina Foundation grant that allowed extensive research into international qualifications frameworks. The resulting GLQF can be used to evaluate learning, regardless of when, how or from where the learning was acquired. In prior learning assessment, the objective is to evaluate the development, integration and application of convergent learning through examining how a student can reflect upon, self-assess and demonstrate convergent learning and how institutions can recognise, validate and credential that learning. The program allows undergraduate students to design their own degrees within 13 areas of study. They use guidelines on learning outcomes to design their curriculum and are encouraged to use RPL through prompts in an e-portfolio template. Students bring in about half of their credits through RPL and thus save themselves on average \$6000 in tuition fees. The roots of this system are based in social justice and the philosophy that knowledge can enter the academy via the students, not just the faculty. The knowledge derived from industry and life experience that is appropriate to the academy has been defined through the GLQF and its learning domains. There is an evaluator resource guide to assist in evaluating the portfolios. Assessment is regarded as developmental and transformational for the students. The assessor interviews the student to ensure that they are able to reflect on their learning, self-assess and articulate their learning around the standards and learning outcomes. A distinction is made between assessing the learning and assessing the evidence – the latter is the approach taken and it requires students to know how to compile and present their evidence. The evaluator’s task is to determine that the learning is at college or university level, whether it is introductory or advanced and the title and credit amount associated with the learning. Once again the institution granting the credit takes responsibility for assessing prior experience.

Specialised agencies for credit assessment

These are used in a limited way in higher education in Australia for recognition of international degree equivalence (for example, the Country Education Profiles of Australian Education International⁵⁵). The VET-based Get Qualified Australia⁵⁶ is almost certainly a harbinger of things to come in the higher education space promising on their website a free online skills review consultation to “discover what qualifications you can achieve without any study today” through one of their “many partnered Registered Training Organisations”. Get Qualified Australia offers industry assessors who provide support and guidance at every stage of the e-Learning process. Similar services are offered by others in the VET space, for example Churchill Education.⁵⁷

As non-university higher education providers become more prominent, there will be impacts on the business models of many universities such that their internal subsidies and

⁵⁵ <https://internationaleducation.gov.au/Services-And-Resources/services-for-organisations/Pages/Services-for-organisations.aspx>

⁵⁶ <http://www.ggaustralia.com.au/e-learning/>

⁵⁷ <http://www.churchilleducation.edu.au/recognition-of-prior-learning-and-you/>

cost structures may become less viable, leading them to seek ways to better define their core business. This could lead to new third party providers who specialise in providing quality assurance for RPL and credentialing for higher education but without actually delivering any programs themselves. An early example in Australia is DeakinDigital⁵⁸ which offers credentials that can be articulated into degrees and, through a credentialing service that documents industry experience and evidence of skills using its own Professional Practice Credentialing framework. It assists learners to self-assess readiness for formal assessment in a credential and to identify capability gaps and relevant learning services. Ultimately Professional Practice degrees can be constructed with a sizeable proportion of the degree being provided by Professional Practice credentials gained through DeakinDigital, the remainder through units of study including a capstone. One such degree, the Master of Professional Practice (IT) targeting experienced professionals has been launched to date.

If disaggregation gathers pace reconsideration may be needed of the caveat TEQSA currently applies in relation to organisations that “typically focus entirely on providing an assessment service and awarding of a qualification, rather than the offering and delivery of courses”⁵⁹. TEQSA advises that “[D]ue to the current Registration and Course Accreditation standards, it is highly unlikely for an assessment house to be registered in Australia under the TEQSA Act”. This may become one of the grey areas that will require more nuanced definition and consideration.

The USA is fairly well advanced in its development of secure and quality assured services for the compilation of digital portfolios and evidence for accreditation of prior learning.

One such example is Learning Counts⁶⁰ established by the Council for Adult and Experiential Learning (CAEL) in the US. Learning Counts helps students to build an undergraduate portfolio demonstrating expertise and knowledge acquired outside the classroom for use in gaining credit towards a formal qualification. The American Council on Education has also assembled more than 25 participating institutions in the US to develop an “alternative credit system that will boost the ability of non-traditional learners to gain a college degree”⁶¹. The pilot project has been funded by the Bill and Melinda Gates Foundation and extends the work undertaken by ACE to develop “quality mechanisms for determining the credit worthiness of education, training and life experiences outside of a formal higher education classroom setting”. ACE also intends to develop a quality framework for issuing recommendations for digital micro-credentials, competency-based programs and non-

⁵⁸ <https://www.deakindigital.com/how-it-works-for-individuals>

⁵⁹ <http://www.teqsa.gov.au/sites/default/files/TEQSAeLearningInformationSheet.pdf>

⁶⁰ <https://learningcounts.org/>

⁶¹ <http://www.acenet.edu/news-room/Pages/Twenty-Five-Institutions-to-Participate-in-ACE-Alternative-Credit-Project.aspx>

degree certificate programs. The ACE College Credit Recommendation Service (CREDIT)⁶² has provided an alternative credit ecosystem for higher education since the 1970s.

Summary

It is evident that the approaches described here for compiling, assessing and transmitting evidence for determining alternative sources of credit require a level of resourcing that is only feasible if done at large scale. This fact raises the prospect of networks of institutions combining to develop or identify specialised agencies capable of carrying out such contract work. This might imply that the standards will need to be revisited to enable greater flexibility in the uncoupling of course design, learning resources, student support and assessment.

⁶² <http://www.acenet.edu/news-room/Pages/College-Credit-Recommendation-Service-CREDIT.aspx>
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Chapter 4 Challenges to quality assurance in the context of the Higher Education Standards Framework

The Higher Education Standards Framework (Threshold Standards) 2015⁶³ recognises and embodies a number of key features:

- Standards are essential for regulation but also for internal quality improvement.
- Standards depend on interpretation and judgement by experts.
- Standards emphasise students and the student experience.
- External referencing and peer review are integral components of institutional quality assurance but the processes are not prescribed.

There is general agreement in the sector that the revised framework is a significant improvement from the original and, in its formulation poses no specific problems that will hinder innovation and flexibility. However, there is also widespread concern that problems could arise in differing interpretations of some of the standards. In many consultations and submissions the sector emphasised the need to ensure that approaches to regulation, policy, data management, quality assurance and infrastructure fully acknowledge and support blended and innovative delivery options.

The following analysis highlights those domains of the new standards framework in which differences in interpretation might arise.

Given the mainstreaming of blended approaches, including work-integrated learning and learning in 'non-formal' settings, and the considerable literature that already exists in ensuring their quality this report does not document or review well established practices and guidelines. Many examples of these already exist, (for example, Ossiannilsson et al, 2015; Williams et al, 2012; ACODE, 2014; Orrell, 2011; Parsell, 2014; Rosewell & Jansen, 2014; Holt et al, 2014; OPENSUNY⁶⁴), some are over-viewed in Chapter 6 and the sector is aware of them and incorporating them into their practices.

How big is this – should we bother?

The short answer is 'yes' – this promises to be an ongoing and expanding challenge because

⁶³ <https://www.legislation.gov.au/Details/F2015L01639>

⁶⁴ <http://commons.suny.edu/cote/course-supports/>

the challenge lies not in the special features of digital learning but in the growing trend towards “openness”: a desire to expand access to higher education to a much broader population base than has previously enjoyed its benefits. The conjunction of “openness” and market forces poses a particular challenge for regulation and for the rapidly emerging desire by both students and providers to codify and accredit learning that occurs outside formal accredited academic programs of study.

The number of opportunities for learners to engage in one of many forms of digital learning is vast. A rough census of opportunities reported by Green (2013) found that, at that time Coursera offered 209 courses with 33 institutional partners, Udacity 19 courses, EdX offered 9 courses with 6 institutional partners, 400 colleges and universities were posting lectures and/or full courses online on YouTube and more than 1,000 institutions were posting courses to Apple’s iTunesU. By the end of 2013 Coursera courses had risen to more than 500 with more than 44.4 million learners involving 97 global partners and 10 US state institutions; EdX had risen to 28 member universities, 17 partner institutions outside the US, 5 European universities and 11 universities from India, China, Hong Kong, South Korea, Japan and Canada (Gaebel, 2014). Gaebel (2014) describes a large and growing volume of MOOC activities in Europe, North America, Latin America, the Arab world, China, India and Australia. By 2015 EdX had progressed from being owned by Harvard and MIT to being a not for profit platform with open source code offering over 2500 MOOCs through 145 sites, with 5.5 million active learners. Approximately 25% of those learners seek university credit that is now offered by EdX through Harvard, MIT, Arizona State University and others. The University of Queensland is a member of EdX and is currently working towards a model of MOOCs for credit that will span both undergraduate and postgraduate subjects.

EdX began with \$60 million seed funding and was established to provide access to quality education, improve on-campus education and advance research into pedagogical innovation. EdX applies no admissions criteria and operates on the principles of anytime, anywhere, any device. Pre and post-tertiary pathways are all part of its strategy. The six core themes guiding EdX’s future planning are accessibility, globalisation, lifelong learning, personalisation, blended learning and unbundled learning (Heinlein, 2015). Heinlein, the Vice President of Strategic Partnerships for EdX emphasises the need to match demand to services, to add value to the degree and to seek impact beyond the institution in terms of regional and institutional collaborations, and research and technology investments. For all of these objectives scale is critical for financial viability. He advocates strongly the integration of the “pre and post student body” into curricular pathways building on the learners for life paradigm. EdX is currently working on a “much bigger tool set for assessment” which should be implemented by 2018.

Can we find the right balance between flexibility and standards?

Barnett (2014) in discussing the conditions of flexibility in higher education warns that “there may be a tendency in any drive towards flexibility to permit altering of standards”

(p.65) but also points out that concerns with standards (which he describes as a proper concern to safeguard the 'controlled reputational range' of the UK university system) may impede flexibility. He warns that moves towards flexibility at the sector and institutional level ultimately involve some ceding of control from teacher to student which, while desirable on many levels may not be "immune from untoward impact". The conclusion he reaches is that standards and quality are "key to the development of more flexible provision but yet it is doubtful if they are receiving their due attention. Both policy and regulatory matters wait to be addressed (and research to be conducted). There are here issues around which surely the whole sector can join, to address them collectively" (Barnett, 2014, p.66).

Barnett concludes that: "The analysis here of the evidence and of the justifications offered by proponents and critics of flexibility is that flexibility in UK higher education is on a cusp. Forms of flexibility are leading to an enhancement in students' experience of higher education and to an impoverishment in that experience; and it is by no means clear as to how, in general, matters might proceed from here. This, therefore, is an especially timely moment for systematic reflection and concerted action by all concerned" (2014, p.72).

Similar sentiments might well apply in Australia. However, to what extent is Barnett's described impoverishment in experience in the eye of a beholder comparing conditions in the 21st century with the mid-20th century experience that he enjoyed? This relativity lies at the heart of the dilemma posed by transformative change. Can we imagine a future sufficiently different from our recent past to cause us to re-examine traditional values about higher education and, indeed, standards? This tension between innovation, flexibility and quality has also been noted in the Australian context (Probert, 2015, p.68) and in some comments gathered in the process of completing this project. A sizeable proportion of those who were consulted emphasise that degrees are not just the sum of their subjects or units but that the elements of design that sequence and structure the learning experiences are crucial to the effective development of opportunities for more generic higher order skills to be encountered and developed. In many degree structures this belief finds expression in the increasing use of 'capstone' courses'.

The UK Quality Code for Higher Education (QAA, 2014) provides a very useful chapter on 'managing higher education provision with others' (Chapter B10). This chapter lists the very large number of ways in which institutions are coping with disaggregation of program delivery including articulation arrangements, work integrated learning, overseas partners, franchised delivery by non-degree awarding bodies, and third party provision of learning support and resources. The Code emphasises that regardless of the wide range and variety of these third party arrangements the fundamental principle underpinning them is that the degree awarding body has ultimate responsibility for academic standards and quality. Consultations with Australian providers confirmed that this fundamental principle is universally accepted. The difficulty perceived by most providers in putting the principle into

practice is essentially developing scalable processes that will allow implementation and documentation in ways that provide evidence of compliance with quality standards.

This chapter suggests some areas in which re-examination of traditional thinking and practice might be appropriate, if not in the pursuit of change, at least in the pursuit of a better understanding of the foreshadowed innovations and their implications.

Challenges and the HESF

Some challenges within each of the seven domains of the HESF, Part A: Standards for Higher Education are outlined below. Part B Criteria for Higher education Providers is beyond the scope of this report but in any case does not appear to pose any impediments to innovation beyond those identified for Part A.

Domain 1: Student participation and attainment

Incorporating:

- Admission
- Credit and RPL
- Orientation and progression
- Learning outcomes and assessment
- Qualifications and certification

Challenges occur in this domain on several levels. Challenges are posed by open entry, that is, no admissions criteria, by traditional performance indicators of progression and completion rates, and by the traditional views of “levels” in the AQF. These challenges are principally conceptual ones that ask us to re-examine some of our assumptions about higher education.

Challenges also occur in relation to providing assessment consistent with learning outcomes and traditional practices in recognition of prior learning or credit transfer. These challenges, however, are logistical rather than conceptual and relate mainly to managing a greater potential scale and diversity of activity than institutions have thus far accommodated. Some approaches to them have been described in Chapter 3.

The conceptual challenges need to be aired and, over time, debated and discussed at a national level. The UK and Europe are not advanced in these discussions and the greater diversity and stratification of provision in the USA has already dealt with them implicitly. Australia, coming to terms only recently in the higher education sector with the AQF and the new regulatory regime possibly needs to have a more explicit understanding of their implications.

1.1 Admission

By definition open entry, especially in a no-fee environment, allows students to determine for themselves whether they are prepared for study. In a setting where credit is sought for this study students may also be the principal decision makers in relation to readiness for assessment. In such environments to ensure optimal use of resources providers may need to devise mechanisms for assisting students in these judgements. Whatever approach is adopted institutions' policies and barriers to earning credit for study must be fully publicised and this may need to be explicitly addressed in guidance notes for the standards. These realities in relation to open education may need to be recognised in the context of the new HESF Section 1.1 which makes assumptions that all admission will be along traditional lines and that the institution rather than the student is responsible for judging the student's readiness.

1.2 Recognition of Prior Learning

In general Section 1.2 of the HESF is not problematic although ensuring the "integrity of the course of study and the qualification are maintained" might raise some conceptual and definitional issues which are explored further below under Section 3.1.

To some extent this problem of assessment divorced from teaching is already being addressed (but with varying degrees of rigour and usually at a small scale) in the process of recognition of prior learning. Feedback from the sector has indicated that there is currently insufficient guidance on RPL available in the Australian context. The AQF explanatory notes for RPL⁶⁵ specify that RPL assessment "should be undertaken by academic or teaching staff with expertise in the subject, content or skills area, as well as knowledge of and expertise in RPL assessment". One potential interpretation of this statement could inhibit attempts to outsource RPL assessment to specialised agencies, although this is probably not its intent.

The variety of models of and purposes for disaggregation is considerable and it is unlikely that the current internal institutional policies and methods for credit recognition, credit transfer and RPL will be sufficiently and universally robust or sophisticated to cope with the likely demand in the medium to long term.

A variety of responses to these issues are in the very early stages of development in North America, UK, European Union, NZ and Australia and are summarised in Chapter 3.

Australian institutions are guided by the AQF Qualifications Pathway Policy - but this is only a guide and consultations confirm that adherence to it is variable. The best assessment is to actually review the student's work but this is difficult to do in volume because it requires individual academic judgements. Individual assessment of students seeking recognition of prior learning is unlikely to be broadly embraced in the higher education sector apart from

⁶⁵ <http://www.aqf.edu.au/wp-content/uploads/2013/06/RPL-Explanation.pdf>

those disciplines in which there are relatively smaller numbers and competencies are easier to codify and judge as is often the case in the VET sector.

The new features that open and disaggregated learning potentially bring to the task are the need to upscale considerably and to be able to cope with a potentially greater diversity of experiences and contexts. Some third party agencies are already offering their services in response to this problem (for example, DeakinDigital). They are specialised, fee for service, and able to assist both learners and providers to assemble authentic evidence of achievement. While this is probably an efficient and growing business model it nevertheless increases the distance in the relationship between the learner and the institution providing his or her credential. The attitude of TEQSA to stand alone assessment agencies as indicated by its guidance note on RPL⁶⁶ may need to be more nuanced in this setting as developments become more sophisticated.

As indicated in Chapter 3 more efficient approaches for determining credit require considerable scale and suggest benefits from networks of institutions combining to develop or identify specialised agencies capable of carrying out such contract work. This might imply that the implementation of the standards will need to enable greater flexibility in the uncoupling of course design, learning resources and assessment.

1.3 Orientation and progression

Orientation to the rules surrounding successful completion of programs remains critical regardless of the nature or mode of delivery and most of Section 1.3 is unproblematic.

However, rules of progression and the use of trend data for progression and completion, attrition and grades as indicators of quality of provision (HESF, Part B2, 2c) enter entirely different territory when open and disaggregated learning become accepted paradigms. Institutions may need to revisit assumptions about recency of learning when deciding to accept previous learning for credit; they may also need to be explicit in acknowledging that, with a diverse student population with diverse needs and circumstances, standard rules of progression may need to be more flexible. Alongside these intra-institutional changes there may be a need for regulatory criteria to be more flexible in recognising that rates of progression may not always be indicators of teaching quality. Equally, non-completion of open courses may not indicate failure as much as maturity in learners who recognise that they have learned what they wanted to. This has a corollary in the relatively lower rates of completion of part-time mature-age students in more traditional programs. It is now a well-accepted principle among those who offer MOOCs that dropout rates may not be a valid indicator of their effectiveness. Research is currently underway in Europe to identify alternative indicators such as “intention-behaviour gap” measures (Kalz, 2015). Jordan (2014) has suggested that completion rates be regarded as a “starting point” for better

⁶⁶ <http://www.teqsa.gov.au/sites/default/files/TEQSAeLearningInformationSheet.pdf>

understanding course design, the impact of different assessment types and the underlying pedagogy.

The solution to each of these issues lies in each institution being explicit about what is acceptable within their particular set of intentions for engaging in open learning and in setting parameters of acceptability and processes which are open and transparent. The regulator needs also to provide guidance which reassures institutions that it recognises the validity of potential departures from the norm if they are appropriately documented.

1.4 Learning outcomes and assessment

Assessment is important because it is the principal way in which institutions and the regulator can ensure that defined learning outcomes are achieved.

Online/digital education allows potentially for additional inferences to be made to enrich the assessment process because of the data that can be collected and analysed on what a student does in a virtual/online/digital learning space. Such learning spaces allow for a different approach in formative assessment and the provision of feedback to students. The standards are aligned with this approach as it is recognised that feedback is of great importance to students in achieving their learning outcomes. In an online world where students have almost unlimited access to information, including quality, curated information, it is timely to consider how academic resources are best used. Can resources be rebalanced between the process of teaching and the processes of feedback and assessment?

Decades of research have established a good evidence base for the design of assessment in higher education (see Boud, 2010). However, disaggregation raises the potential need for research into the types of evidence that are acceptable in determining achievement where the assessment process may have been divorced from the framework of a program of study that has been designed and accredited as an integrated whole. Chapter B6 of the Quality Code for Higher Education (QAA, 2014, p.4) draws attention to the fact that the key features of sound practice are common to both assessment used as the basis for recognising learning gained outside a defined (or formal) higher education program and for learning within a formal program.

Well established approaches to quality assurance and alignment of learning objectives and assessment are routine practice, however the online environment poses particular challenges. Those include the ability to authentically assess some learning outcomes online, for example, practical skills, oral communication, and teamwork. There are also problems in ensuring integrity of assessment in online or unbundled settings, ensuring that those who are seeking the credential are actually those who have done the assessment. Awarding credit for work done and authentication of assessment are more difficult when the tasks are further removed from the institution. To some extent this problem is already being confronted daily in the processes of work-place learning or study abroad programs.

Unbundling places a significant emphasis on the need for demonstrable rigour and identity authentication in assessing learning against specified course and unit outcomes and on the ability to do so potentially at scale. Many institutions are developing formal ways to document this which are useful not only within the institution but also potentially for other institutions wishing to map achievements for RPL (Murdoch, 2015).

In its advice to this project the Council of Australian Directors of Academic Development (CADAD) pointed out that the disaggregation agenda signals a significant shift towards ensuring program integrity through the ability to measure outcomes. This suggests the need to develop the abilities of academics to select and curate content from multiple sources and to design valid and robust assessment to assess learning outcomes from learning experiences developed elsewhere. It also suggests that the HESF may need to provide more detailed information about what robust assessment practices and effective feedback will look like in this unbundled environment. There may be less time to address this than we think. For example, the University of Queensland is, at the time of writing, conducting a consultation and white paper process with students, staff, industry and alumni which is revealing a “healthy appetite for flexible learning predicated on OER and opportunities for students to demonstrate prior learning through assessment regimes that are separated from the learning experience”⁶⁷.

Unbundling also permits study of program content through open resources where payment of a fee is required only at the point of registration for assessment and only when the learner has decided they are ready to do so. Increasingly providers of MOOCs (for example, Futurelearn) are offering this option. Particularly at the postgraduate level there is movement in the direction of modularised assessment where learners indicate when they are ready to undertake assessment of specific curriculum modules.

At this stage ways to assess achievement through completion of open resources still need further development. Portfolios of evidence against stated learning outcomes, and third party verification and interview to support portfolios are possibilities. Digital badges and credentialing in an online environment are still in the early stages but such credentials could be awarded for a successful oral exam, thus adding to the assessment armamentarium. “Challenge assessment tasks” could be used as de facto capstone assessments to determine proficiency in higher order integrative learning objectives. Whatever modes are identified for assessment that is effectively uncoupled from the learning program itself there will need to be a sustained and targeted research and development program to ensure that they are rigorous, scalable, affordable and fit for purpose. This is a fertile field for national and international collaborative effort.

1.5 Qualifications and certification

In general Section 1.5 is unproblematic however, see Section 5.1 for comments on AQF.

⁶⁷ Personal communication Professor D. Macdonald (PVC Teaching & Learning)
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Domain 2: Learning Environment

Incorporating:

- Facilities and infrastructure
- Diversity and equity
- Wellbeing and safety
- Student grievances and complaints

2.1 *Facilities and infrastructure*

Current approaches to off campus activity will probably suffice in a disaggregated environment where the provider is known. However, where details of the facilities provided in, for example, a MOOC or work-based context cannot be adequately ascertained more reliance may need to be placed on the assessment of learning outcomes rather than the inputs. One respondent to this project indicated also that parts of the HESF which refer to the locality of operations may need to be explored in relation to online education where national borders become less relevant to operations. This could have implications for the Education Services for Overseas Students (ESOS) regulations that require attendance of international students on-campus as universities move more into blended offerings of on-campus and online learning. A dialogue between providers and the regulator might be beneficial in this area.

2.2 *Diversity and equity*

The advent of open, disaggregated and more flexible modes of education is aimed predominantly at improving diversity and equity. The HESF poses no difficulties in its standards in this area.

2.3 *Student wellbeing and safety*

One respondent identified a potential clarification arising from Standard 2.3 (5) which refers to having a critical incident policy and appropriate procedures. Critical incident policies usually relate to services and support relevant to an on-campus experience. The question as to the appropriate obligation of the provider for managing critical incidents associated with students in an online environment may need further consideration to ensure that critical incident procedures make it clear what these options are for all students, irrespective of geography and study mode. Furthermore, online study can lead to critical incidents (for example, hacking or identity theft by a fellow student) of a type that were not even contemplated when many 'on-campus' critical incident policies were written. Students should have access to a specified **appropriate** critical incident response and support service rather than a process that is identical for all students.

2.4 *Student grievances and complaints*

This poses no potential problems.

Domain 3: Teaching

Incorporating:

- Course design
- Staffing
- Learning resources and educational support

3.1 Course design

Section 3.1 (1) which identifies the specifications required for course design is, in general unproblematic. However, there are several elements within it that may require a more liberal interpretation in the context of disaggregated, open and unbundled learning. In general it should be incumbent upon the provider to explain and demonstrate transparently the alternate ways in which it meets these specifications rather than that the specifications are followed to the letter. A dialogue with the regulator on the various approaches that are being explored in this context would be beneficial to allow for that flexibility in interpretation.

These standards are given expression in 3.1 (2,3) through accepted approaches to course design guided by AQF descriptors that emphasise program coherence, discipline integrity and progressive intellectual sophistication in understanding and application of knowledge and skills. The definition of graduate attributes, co-curricular add-ons, threshold learning outcomes, content and skills mapping and capstone units have all contributed to more systematic frameworks for program construction that meets these standards. However, all of these approaches rest on a basic assumption that course designers determine the program of study based on the *characteristics of the discipline*. In a more “open” learning environment learners, perhaps in consultation with their employers or potential employers, are seeking to construct their own coherent programs of study based on their *personal identified needs and knowledge or skill gaps*. Increasingly, if they are paying to undertake such programs they are seeking formal recognition of their investment of effort and money. Coherence and integrity of a program of study are the point at which employability intersects with broader goals of higher education.

The question that needs to be confronted and eventually addressed by the regulatory framework is “coherence in relation to what” and according to whose definition? From some perspectives institutionally imposed coherence is antithetical to personalisation. Much more debate on this point will be needed as business models for higher education evolve. A more sophisticated and up to date level of understanding of a variety of purposes for higher education, and the diversity of ways in which it will be accessed in the 21st century, is likely to be needed to ensure that qualifications frameworks and regulatory practices are not captured by rigid and outmoded models of program construction that stifle evolution and render Australian higher education uncompetitive.

One solution to this potential challenge is for providers to design the criteria for awarding a credential or qualification solely on the basis of performance on specifically designated learning outcomes rather than on the sequence or volume or environment for learning. Assessing ‘volume’ of learning is in itself challenging in unbundled and micro-credentialled learning which is untethered from a timeline. In such a scenario the *nature* of the student *experience* becomes subordinate to the *standard* of the student *performance*. This is potentially at odds with the HESF which places a heavy emphasis on protecting students from careless and poorly delivered or ‘ineffective’ student experiences but places less emphasis on poorly delivered student assessment. In seeking to ensure a quality experience for students it is important to acknowledge that the flexibility students seek might extend not just to choosing what they learn but also how they engage in the learning. There is a growing population, particularly of mature aged students, but also of younger students, who judge the quality of their own study experience on the basis of convenience, affordability, accessibility and a minimum of perceived irrelevant demands from the provider (for example, group work contributing to team skills or being required to attend a practical program regardless of their existing skill levels). They want “just in time, just for me”. A UK study using the UK engagement survey found that interaction and collaboration with others in MOOCs was not highly valued nor was the opportunity to explore open-ended lines of enquiry or create knowledge. It concluded that some need and depend on social interaction and others flourish without it (Wintrup et al, 2015). Challenge tasks could be made available to allow students to demonstrate what skills and knowledge they already possess and to opt out of some of the curriculum modules. Ideally these opportunities would incorporate the option to start at any time convenient to the learner, rather than on a designated start date. There needs to be sufficient flexibility in interpretation by the regulator of course design standards to permit this to happen.

3.2 Staffing

The standards framework and the regulatory approach currently acknowledge that online teaching may require different skill sets. Most respondents to this project acknowledged that the framework imposes no impediments, however most also emphasised the need for either specialised staff or better staff training for handling the new demands posed by open learning, exploitation of social media and the heightened capabilities provided by learning analytics. There is also a problem with span of hours for staff in an environment where online work is often 24/7. New approaches to 24/7 staff availability for a 24/7 clientele will be needed.

3.3 Learning resources and educational support

Some respondents identified improvements in the revised standards which recognise that it may not be appropriate to provide student support and services through a physical campus and acknowledged that the revised standards better recognise the need for security in digital and online environments.

However, most also expressed concern to ensure that regulatory approaches are fully cognisant of the differences. This concern is based on experiences to date where many feel that although the standards accommodate the differences the judgements made by reviewers and case officers in the regulatory context have not been as accommodating.

Domain 4: Research and Research Training

The area of research and research training is not addressed explicitly in this report since it has its own particular issues that do not bear on the focus of the report.

Domain 5: Institutional Quality Assurance

Incorporating:

- Course approval and accreditation
- Academic and research integrity
- Monitoring, review and improvement
- Delivery with other parties

5.1 Course approval and accreditation

All standards under this heading apply equally to all modes of study and pose no undue impediments. However, 5.1(3a) makes reference to meeting the applicable standards of the HESF which embody the requirement that the course will comply with the AQF and regulatory and funding policies.

The emerging practice of unbundling components of courses, not only in terms of content delivery but also in terms of student support, assessment and recognition of prior learning poses a serious challenge to core concepts such as integrity and coherence of a program of study and of the student experience. These concepts are enshrined in the HESF and the AQF and are central criteria against which regulatory bodies accredit programs of study.

In programs of study leading to professional qualifications such as accountancy or medicine it is generally the profession and, indirectly, employers who are the arbiters of coherence and subject integrity. In other academic disciplines the concepts of coherence and subject integrity are not necessarily well articulated. It is possible to undertake a degree in the arts, humanities, creative industries and even science where coherence is determined largely on the basis of levels, based presumably on sequential degrees of intellectual effort, with a great deal more autonomy available to the student to assemble the content of their own program.

Old traditions of “advanced” knowledge being built upon more “basic” knowledge are also no longer as intuitive as they once seemed. The advent, in the 1970s of problem based learning, especially in the health professions, turned many curriculum assumptions on their heads. Students were introduced to clinical (previously advanced) content in order to allow them to learn in more meaningful ways the previously basic disciplines such as anatomy.

Learning experiences can be constructed in either direction, each approach serving a different pedagogical objective.

The AQF is based on the premise of sequential aggregation of knowledge and skills at progressively more advanced levels. However, knowledge and skills acquisition in the “real world” does not always progress so neatly or sequentially, a fact which is increasingly acknowledged by those who are breaking the mould and seeking disaggregated learning opportunities. The AQF Pathways Policy (Section 2.1.4) specifies amongst other things that giving credit into or towards an AQF qualification should not impinge upon “the integrity of qualification outcomes and discipline requirements”. This criterion may be more difficult to assess in a disaggregated study program.

5.2 Academic and research integrity

All standards under this heading apply equally to all modes of study and pose no undue impediments.

5.3 Monitoring, review and improvement

In general the principles surrounding monitoring and continuous improvement apply to all delivery options. However, section 5.3 (4), in specifying criteria to be used for external referencing of success of cohorts, raises some issues in relation to indicators of performance that have already been discussed under 1.3 above. Open and disaggregated learning which is accepted for credit might need broader indicators of student engagement and participation. Fortunately alternative indicators can be found in the emerging field of learner analytics. A dialogue with the sector on emerging alternative indicators of student engagement and success would, at an appropriate time, be beneficial.

Another broader implication underlying quality assurance and performance monitoring and review in a disaggregated and more open environment is the need to reassess some fundamental principles. The rapid development of multiple types of and motivations for studying MOOCs and other open learning experiences has outstripped the ability to classify them in ways that offer common criteria for assessment of quality. A principal criterion of quality is ‘fitness for purpose’, but the purposes of these offerings and the needs of the people who undertake them defy ready classification. There is no clear singular purpose or taxonomy of purposes against which fitness can be judged. It is important to avoid capture by the MOOC label and to concentrate on the nature of the interaction with learners and the purposes of MOOCs from their perspectives.

Various approaches to classifying MOOCs and open learning formats have been published and illustrate considerable diversity (for example, Baker & Surry, 2013; Clark, 2013; Hayes, 2015; Schneider, 2013). This diversity highlights the importance of each institution that engages students in open learning defining for itself why it is doing so, what the needs and motivations of students/participants are, how it is intending to enhance the student

experience and, based on these purposes, the criteria it will use to demonstrate the quality of the experiences provided.

This may signal the need to adopt a broader view of the 'student experience', which, even when interpreted for online students, makes several assumptions about the nature of effective education which are based largely on evidence from historically traditional student populations. Many time-pressed mature learners already know how to engage, collaborate and define their own needs. These people might regard as a nuisance learning experiences that offer more 'social' and constructivist modes of engagement, even if conducted in online chat rooms. More needs to be known about the effectiveness of different experiences for different types of learners, based not on traditional notions of 'learning styles' but on acknowledgement of personal objectives. Learning analytics offers potential for feasible approaches to this type of course design. MOOCKnowledge (see Chapter 2), a research project underway through OpenupEd partners may also contribute to this knowledge.

5.4 Delivery with other parties

This section of the standards assumes that other parties involved in delivery are engaged at some level as partners in the enterprise with the qualification awarding body. This may not be the case and is currently not the case in credit transfer or RPL arrangements even where the degree awarding body allows very large proportions of the learning to have been delivered by other parties. In a disaggregated environment it may be less feasible for degree awarding institutions to be confident of the quality of the inputs and the student experience provided by other providers and emphasis may need to be more heavily placed on the validity and reliability of the assessment of learning outcomes and performance.

The general trends in higher education such as privatisation, borderless markets, inclusion of higher education in globalisation and international trade agreements create an international market for quality assurance and accreditation services, already well advanced in business disciplines and disciplines such as engineering. Use of international accreditation services by Australian institutions will inevitably increase and this should be acknowledged in the interpretation of the standards.

It should also be acknowledged that third party providers will increasingly provide co-curricular support or accreditation services rather than academic content and eventually standards may need to be devised and implemented for assuring the quality of those services. An example of such a service is provided by the Council for Higher Education Accreditation in the USA which is offering 'alternative providers of higher education' such as EdX, Coursera, Futurelearn, and providers who may offer badges or certificates but do not award degrees, services through their quality platform which reviews outcomes based performance, promotes self-review as well as external review, provides periodic re-

examination and transparency and comparability of review and results. Successful reviews result in the award of “Quality Platform Provider” status.⁶⁸

Domain 6: Governance and accountability

Incorporating:

- Corporate governance
- Corporate monitoring and accountability
- Operations and financial viability
- Quality of teaching, learning and research training

6.1 Corporate governance

All standards under this heading apply equally to all modes of study and pose no undue impediments with the possible exception of 6.1 (4) which refers to students having opportunities to participate in deliberative and decision making processes. This standard is not restrictive *per se* but its interpretation must be sufficiently flexible to account for potentially thousands of students studying around the globe.

6.2 Corporate monitoring and accountability

All standards under this heading apply equally to all modes of study and pose no undue impediments. However, the diversity of business models under which higher education providers function is likely to increase and there will need to be a recognition by the regulator that the parameters of ‘realistic’ performance targets, financial viability, student demand, market differentiation and risks might present as different profiles for different institutions.

6.3 Academic governance

All standards under this heading apply equally to all modes of study and pose no undue impediments with the possible exception of 6.3 (3) which refers to students having opportunities to participate in academic governance. This might need some flexibility in interpretation by the regulator.

Domain 7: Representation, Information and Information Management

Incorporating:

- Representation
- Information for prospective and current students
- Information management, reporting and record keeping

All standards under Domain 7 apply equally to all modes of study and pose no undue impediments.

⁶⁸ www.chea.org

It is noted that the advent of more sophisticated capacity for record keeping and detailed student performance data will aid student mobility and that the Groningen Declaration⁶⁹ will be helpful in finding common ground to serve the academic and professional mobility⁷⁰ needs of graduates and teachers worldwide by bringing together key stakeholders in the Digital Student Data Ecosystem. As these developments unfold, eventually allowing machine to machine direct data transfer of data-enabled secure pdf replicas, guidance notes may be helpful in apprising institutions of the implications for their information management.

⁶⁹ <http://www.groningendeclaration.org/>

⁷⁰ <http://www.groningendeclaration.org/sites/default/files/EAI%20%26%20Student%20data%20portability.pdf>

Chapter 5 Future priorities for Australia

The European Changing Pedagogical Landscapes Project (Haywood, 2014) envisages a future of:

- Market consolidation (driven by University rankings, removal of registration quotas, volume delivery on MOOC) resulting in more students at fewer universities.
- Rise of mega universities with transnational campuses.
- Mixed model within most universities, in which a large amount of traditional teaching will take place but alongside large scale use of technology and redesigned curricula.
- The same number of teachers in the system able to teach more students in the same time and to the same quality (that is, knowledge, skills, levels).
- The same number of teachers in the system able to teach the same number of students to the same quality but much faster, that is, time to graduation reduced.
- Enough universities offer enough courses at a distance that location is no barrier to student access to Higher Education at first and second degree levels.
- Flexibility of location (place) but also flexibility of time (pace, start date).
- Higher education providers will have an e-learning strategy that is widely understood and integrated into the overall strategies for institutional development and quality improvement.

Consultations with the sector in Australia have confirmed that many institutions are already headed down these paths, albeit in the early stages, and many more are exploring the implications of doing so. There is general consensus that regulatory frameworks are not posing insurmountable barriers although there may be need for some fine-tuning of AQF definitions and guidelines and of government funding and ESOS requirements.

Sector Suggestions for the future

Caveats around the current regulatory regime

Most respondents to the invitation to comment for this project felt that the HES Framework does not present any unreasonable impediments because they are not focused on modes of delivery but rather on supportive and engaging experiences. However, there are reports that the regulatory standards are sometimes interpreted and applied more narrowly than they are intended to be. Hence a number of caveats were identified by respondents to the questions this review posed.

- The standards take a position on staff qualifications for higher education delivery that is predicated on a traditional educational paradigm. In a lecture delivery format, it may be reasonable to require that staff delivering material possess

qualifications of higher standing than that of the qualification being taught. However, this requirement is not necessarily self-evident, for instance, when an undergraduate is undertaking a work placement and the supervisor is a professional rather than an academic. There are similar arguments for simulated or experiential learning on-campus where skilled educators with professional and technical expertise in environments as diverse as legal practice, journalism, nursing and architecture might be employed as teachers. In some circumstances the distinction between professional and academic expertise appears arbitrary. (*TEQSA has addressed this issue in a guidance note*).

- Measures of academic standards underpinning the HES are implicitly input focused. Issues such as staff qualifications, scholarship and complexity of content in course rubrics, duration and sequencing of units within a course should be viewed more as background information rather than criteria of academic quality. The only valid measure of quality is whether students can demonstrate achievement of defined learning outcomes. Increasingly, a wide range of open or shared educational content is being used by students to prepare themselves for assessment of learning outcomes. Some of these are chosen by the student, such as MOOCs; some are brokered by the universities (partnership courses, consortia such as Open Universities Australia, OERu). The reality is that developing students' capabilities and improving their outcomes increasingly involves a broader range of educational inputs many of which fall outside the control of the regulators or the HESF.
- Distributed and disaggregated learning on a broader scale will necessitate review of some of the standard metrics currently used for assessing institutional performance, for example attrition rates which are only valid indicators within a formally structured program of study.
- Funding models continue to be based on 'on-campus' provision. Revised policy, accountability and funding settings need to better accommodate the range of provision methods. It was also noted that the ESOS Act attendance requirements inhibit flexible delivery and blended learning for international students.
- The Council of Australian University Librarians (CAUL) noted that the HESF makes no explicit reference to libraries and may not sufficiently reflect current benchmarking practices. CAUL also notes that it is important for standards to specify "reasonable accommodation" for learning resources and educational support in the online environment to avoid a heavy compliance burden. A guide/reference point/code of practice would help here.
- Legal issues related to libraries are also arising for those who are pushing the boundaries of unbundled learning – only enrolled students are covered by contractual arrangements with library journal database providers, forcing formal enrolment when the preferred option is a less formal entry to the learning process. The availability of online resources is forcing a rapid reassessment of the role of institutional libraries and even the role of publishers. Illegal copies of copyright texts

are apparently available if you know where to look. In addition many academics are self-publishing educational resources which are either cheaply available or open access but may not be peer-reviewed.

- Current provider registration standards with respect to governance, student support services and campus facilities continue to be more oriented to traditional on-campus delivery. There is concern among providers that approaches to their implementation may not be well enough understood by TEQSA assessors in the context of the increasing diversity of providers, partnerships and modes of provision.
- Comment from the non-university sector also indicates that the provider standards might need review to ensure that both self-accrediting and non-self-accrediting non-university providers have sufficiently sophisticated administration infrastructure to manage the much more complex process of accrediting disaggregated learning experiences.
- While not prescriptive, the alignment between the Higher Education Standards and the volume of learning or time-based definition of academic level enshrined in the Australian Qualifications Framework creates some difficulties for innovative learning programs that focus on what students can actually do, rather than how long it has taken them to learn how to do it. This especially applies to competency-based models of learning and assessment. Some comment that qualification standards and the AQF are "parochial" with requirements for degree titles and volume of learning being often out of step with international best practice (for example, one year Masters degrees). A model of provision based on time is becoming increasingly irrelevant in a blended or online learning environment - more consideration is needed for ways to recognise acquisition of competencies, skills and knowledge.
- To allow full development of the potential of modern and unbundled delivery modes there will need to be flexibility in application of the standards relating to the alignment of specific assessments with specific experiences and learning objectives. For example, micro credentialing, through credentials that are scaffolded towards a formal qualification may need to be the focus of new quality assurance measures.
- Further exploration and consideration might need to be given to how work-integrated learning may affect volume of learning and its implementation. High-quality work-integrated learning, which incorporates reflective practice at the appropriate AQF level, would be required for work-integrated learning to contribute to the volume of learning. This has to be managed appropriately, but again time may be required to determine how this model best fits into a higher education academic context.
- Online/digital education allows for a very different assessment paradigm simply because of the data that can be collected and analysed on what a student does in a virtual/online/digital learning space. Such learning spaces allow for a different approach in formative assessment and the provision of feedback to students. The

standards are aligned with this approach since they recognise that feedback is important to students in achieving their learning outcomes.

These caveats are more likely to be activated in the interpretation of the HESF and AQF than in the actual formulations of them. Nevertheless, they reflect the experience and concerns of the sector to date. They illustrate why it will be important for the sector and TEQSA to have a shared understanding on what is an appropriate level of emphasis for input measures such as staff qualifications and type of support for students studying in various modes. Approaches to regulation, policy, data management, quality assurance and infrastructure support all need to be reviewed to fully accommodate blended learning options. This is addressed in the revised standards that are deliberately and appropriately broadly defined but their application will need to be closely monitored.

Suggestions for further development

A number of suggestions arise from comments made during the course of consultation and from the literature and international experience. These suggestions could form the basis of an agenda for future development priorities for the sector and future iterations of the HESF.

Suggestions for policy makers

Although this project did not specify recommendations in its terms of reference the research leads inevitably to the suggestion that a coordinated approach will be necessary to ensure that Australia is not left behind in the wave of global attention to open education and the considerable implications it will have. This report can only endorse and add strength to the recommendations for national action provided in the OLT funded study entitled 'Students, Universities and Open Education'⁷¹. Foremost among these is the need to agree on a national strategy to leverage contemporary IT for improving productivity of higher education through use of Open Educational Resources and the need for a national body to drive the strategy development. To that this report would add the need to engage in broader-based discussion with the sector on some of the overarching principles underpinning quality higher education that open education might challenge. Particular attention might also need to be focussed on the minimum standards of administrative infrastructure that will be required to operate in disaggregated environments – where smaller non-university providers do not have the critical mass to develop this infrastructure consortia might need to be encouraged.

Consultations for this report also revealed the need to review legislation on overseas students and funding of higher education providers regularly to ensure that perverse incentives or unnecessary barriers to flexibility are not imposed.

⁷¹ <http://openedoz.org/resources/>

Suggestions for TEQSA and the HESP

- Attention was drawn to the risk of the tendency towards conservative policies and regulatory criteria resulting in ossification – interpretation of standards should be more encouraging of diversification and innovation to ensure that Australia keeps pace with international best practice. To ensure this case managers and reviewers for TEQSA may need regular professional development around the emerging approaches to open and flexible delivery.
- At the appropriate time TEQSA and/or other agency or agencies (such as UA and COPHE) could sponsor a Forum or series of Forums on striking the appropriate balance between courses designed by learners who are defining their own learning needs and objectives, and the traditional concepts of discipline coherence and integrity.
- At the appropriate time TEQSA and/or other agency or agencies (such as UA and COPHE) could sponsor a Forum or series of Forums on alternative indicators of student engagement and success that are enabled by the growth of learning analytics capabilities.
- The standards may need to provide more detailed information in the form of reference points to illustrate robust assessment practices in an environment where open educational resources are more commonly used and assessment is developed by teachers who have curated but not developed the content.
- An expansion of standards or at least an expansion of reference points may be necessary to guide institutions in developing more sophisticated and comparable scalable processes that assess for credit learning that has occurred in diverse settings.
- Additional work needs to be undertaken in the area of RPL and MOOCs to ensure a consistent approach across the sector that accurately reflects MOOC content and learning outcomes.
- RPL or credit transfer will continue to be based on the credentialling of the study, the evidence of the curriculum covered and the learning level attained. Thus, studies from disaggregated study units or MOOCs should only be recognised where a student can provide credentialed evidence of attainment. However, when requests for such recognition increase dramatically in scale as is expected, quality assurance criteria and reference points will be required for processes that are developed to handle the load.
- Criteria and standards may be required for assessing the credentials of commercial agencies that offer RPL and other support services on a contract basis.
- Evidence-based frameworks illustrating what is meant by quality assurance in work based or supervised off campus learning would be helpful as reference points especially in light of the diversity of work and community based learning experiences. Increasingly diverse collaborative business partnerships are likely and it is evident from current experience with regulation that the application of the

standards to these types of arrangements needs more transparent and confident understanding by all of the parties.

At a practical level TEQSA's guidance notes offer a way to bridge the gap between standards and interpretation if they are developed in consultation with the sector. This project has identified a number of areas in which TEQSA might consider developing further guidance notes.

For example:

- An interim and updateable position statement on TEQSA's approach to, and attitude towards disaggregated modes of delivery including contracting of service providers for provision of non-teaching components of courses, for example validated accreditation, assessment or RPL services, quality assured student support services. The main purpose of this would be to open a dialogue and provide reassurance that the validity of potential departures from the norm is recognised provided they are appropriately documented.
- Suggestions for desirable elements for student advice both before admission and subsequently, for institutions offering open learning or acceptance of open learning for credit. These suggestions might also address the need for institutions to be explicit about the place of open or post-traditional learning in their teaching and learning strategic plans, the parameters within which they will consider and award credit for non-formal learning, the processes by which it will be assessed and the ways in which quality will be assured.
- A guidance note that addresses the kinds of robust evidence that might be sought in relation to assessment of non-formal learning acquired in other settings not under the influence of the awarding institution. Research and development in this area as well as international collaboration could be encouraged.
- A guidance note which offers broad parameters for judgements on credit transfer and RPL might help the sector develop a greater national consistency than currently appears (by report of many providers) to exist. The Canadian Association for Prior Learning Assessment (CAPLA, 2015) has produced a manual for quality assurance for the recognition of prior learning which might be a useful starting point.

Suggestions for Higher Education Providers

- The disaggregation agenda will demand and reinforce the already apparent trend towards assessing quality on the basis of outcome measures rather than inputs and processes. Academics will need an enhanced skill set to allow them to select and curate content from multiple sources and design valid and robust assessment to assess learning outcomes.
- More attention will be needed to the specific preparation of teaching staff for disaggregated forms of delivery, their heavy reliance on social media, their

technological capabilities including for amassing large data sets and the complexities of ownership and rights management. Attention to the culture of academic institutions also continues to be warranted. The Online Learning Consortium's *Online Report Card – Tracking online education in the United States*⁷² shows that while there is a multi-year trend of growth in online enrolments, outpacing overall higher education enrolments, only 29% of academic leaders report that their faculty accept the “value and legitimacy of online education”.

- A study commissioned by the UK Higher Education Academy into students' views of Open Educational Resources (OER) found that most students were positive about many aspects of OER and more than half expected OERs to play an increasingly important role in their future learning experiences but that there is also need for more clarity for students about the relative responsibilities of students and institutions for access to resources such as high speed internet, and more practical support in the discovery and use of OERs⁷³ (www.heacademy.ac.uk). Different modes of delivery imply different expectations of resources available to students, for example access to sufficient bandwidth. The degree of institutional responsibility for facilitating this is not clear and this is another area in which guidelines or reference points would be welcome.
- Institutions might also consider enhancing the extent to which they assist students to navigate disaggregated learning spaces, assisting with the capability to choose (know) what they need to learn and to choose appropriate learning experiences (from all the open opportunities) and to develop the capacity to demonstrate learning. More explicit approaches to increasing student self-reliance may threaten some institutions' established ways of doing business but it is likely to better prepare students for their working lives.
- HEPs will continue to have policy and procedures in place for managing RPL and credit transfer arrangements. However, as complexity and scale increases policies should offer sufficient clarity on the nature and extent of the evidence required so as to manage student expectations of entitlement to credit. This will become critical in the Open Educational Resources and MOOCs environment, where students need to be fully apprised on enrolment whether the units are accredited or eligible for credit.
- The overall stance of each Higher Education Provider in relation to acceptance of open or non-formal studies for credit and the conditions under which credit will be given needs to be explicitly stated in its policies and marketing material in “plain English”. Some will choose to be open in their approach, some may choose not to accredit non-formal learning – however, that choice should be explicit.

⁷² <http://onlinelearningconsortium.org/read/online-report-card-tracking-online-education-united-states-2015/>

⁷³ <https://www.heacademy.ac.uk/resource/students%E2%80%99-views-learning-methods-and-open-educational-resources-higher-education>

Chapter 6 Resource bibliography

Quality assurance in open and technology based learning

The Australian Council on Open, Distance and e-learning (ACODE) has produced:

- Benchmarks for Technology Enhanced Learning.
- Guidelines for use of the benchmarks
- Self-Assessment Template for institutions to use the benchmarks.
- ACODE Benchmarking Code of Conduct and Protocols for Participation.
- Report on the refresh project 2014 and Inter-Institutional Benchmarking Summit.
- Evaluation report on the Workability of the Framework.

These are downloadable from the ACODE website.

http://www.acode.edu.au/pluginfile.php/579/mod_resource/content/3/TEL_Benchmarks.pdf

OpenupEd

www.openuped.eu

OpenupEd aims to be a distinct quality brand embracing a wide diversity of (institutional) approaches to open up education via the use of MOOCs. OpenupEd partners developed a quality label for MOOCs tailored to both e-learning and open education and published in January 2014. The associated institutional benchmarking with this label is primarily meant to be applied as an improvement tool. Partners in 12 countries have launched the first pan-European MOOCs initiative with the support of the European Commission.

The 'Globalising OpenupEd Project' aims to empower key national higher education institutions to offer courses with full open licences (OERs) and to transform them into MOOCs. UNESCO is working with the Africa Council for Distance Education and the Asian Association for Open Universities to extend the project.

UNIQUE Certification

<http://unique.efquel.org>

The European Foundation for Quality in e-Learning (EFQUEL) has introduced institutional certification for outstanding use of ICT in learning and teaching awarded after a process of self-assessment and external peer review and renewable each three years. Compared to other certifications UNIQUE has a broader institutional approach not only related to e-Learning. An Information Package and guidelines for use are downloadable at http://unique.efquel.org/files/2012/09/UNIQUE_guidelines_2011.pdf

E-xcellence

E-xcellence is a European movement on quality assurance in e-learning that is being led by the European Association of Distance Teaching Universities (EADTU). It is building an e-learning benchmarking community of Associates in Quality focusing on four priority elements: accessibility, flexibility, interactiveness and personalisation. The process is a guided self-assessment to stimulate self-improvement. If an institution decides to also request external review from e-learning experts it can receive the E-xcellence Associates label. <http://e-xcellencelabel.eadtu.eu/e-xcellence/associates-label>.

The third edition of the E-xcellence manual (Quality Assessment for E-learning: A Benchmarking Approach) was launched on April 13, 2016. The new edition includes additional material reflecting on new and recent trends: the rapid rise of Massive Open Online Courses (MOOCs), learning analytics, an increasing use of learning design in a more systematic approach to the development of e-learning courses, an increased focus on personalisation, flipped approaches to teaching, virtual and remote laboratories, digital badges and e-portfolios. http://e-xcellencelabel.eadtu.eu/images/E-xcellence_manual_2016_third_edition.pdf

SEQUENT

www.sequent-network.eu

European-wide initiative of EFQUEL, EADTU and ENQA (European Association for Quality Assurance in Higher Education) to promote quality tools, quality approaches and quality models for improvement of e-Learning provision in European education. The goal is to prepare European Universities in line with the European Modernisation Agenda and to enhance cross-border collaboration initiatives in the implementation of innovative and ICT enhanced partnerships.

Produced the *SEQUENT Handbook for Quality in e-learning procedures* authored by Keith Williams, with George Ubachs & Paul Bacsich, EADTU, March 2015. Downloadable at http://www.sequent-network.eu/images/Guidelines/Sequent_Handbook_for_Quality_in_e-learning_procedures.pdf

Quality Agencies in Europe and the approach to e-learning and open learning. Showcases Report by Paul Bacsich, EADTU, June 2015

This report is a separately published subset of the research conducted for the European Union funded project SEQUENT – Supporting Quality in E-Learning European networks. It begins with an overview of quality agencies in Europe with particular reference to e-learning and OER aspects and concludes with a chapter on quality procedures within universities. Downloadable at https://www.academia.edu/13020383/Quality_Agencies_in_Europe_and_their_approach_to_e-learning_and_open_learning

International Council for Open and Distance Education

Quality models in online and open education around the globe: State of the art and recommendations. Authored by Ebba Ossiannilssen, Keith Williams, Anthony F. Camilleri and Mark Brown. Coordinated by EADTU, May 2015. Downloadable at http://icde.typepad.com/quality_models/

This report provides the first global overview of quality models, reviews more than 40 in detail and reveals that there are many existing schemes and models for QA of open, distance, flexible and online education. A useful summary table is provided. It makes 11 recommendations including the need to mainstream e-learning quality, establish quality criteria for mobile learning systems, address unbundling and the emergence of non-traditional providers, address quality issues around credentialisation through qualifications frameworks, support QA audits and benchmarking exercises and support research and scholarship in developing new models. It stresses the need for information sharing, collaboration and coordination and identifies a role for ICDE in working with international organisations to ensure a harmonised regulatory environment and student engagement in determining quality standards.

Quality Assurance Agency UK

The QAA has produced the Quality Code comprising:

- Part A – setting and maintaining of academic standards
- Part B – assuring and enhancing academic quality
- Part C – information about higher education provision.

Of particular interest in the context of this report are:

- Chapter B10: Managing Higher Education Provision with Others.
- Chapter B6: Assessment of Students and the Recognition of Prior Learning.
- Chapter B3: Learning and teaching: Indicators pp.13-20.

<http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code>

The QAA released a Statement on Massive Open Online Courses (2014). It points to the UK Quality Code for Higher Education as a “useful reference point that may assist providers in applying or adapting their internal quality assurance processes to approve, monitor and review their MOOCs”. The QAA committed in its statement to disseminating evidence of good practice, supporting providers and assisting with future arrangements including the development of assessment techniques and the award of credit.

<http://www.qaa.ac.uk/en/Publications/Documents/QAA-position-statement-MOOCs.pdf>.

A QAA MOOCs network was formed on LinkedIn. Among other things the network has published MOOCs and Quality: A Review of the Recent Literature (Hayes, 2015).

<http://www.qaa.ac.uk/en/Publications/Documents/MOOCs-and-Quality-Literature-Review-15.pdf>.

Open Education and MOOCs

European Parliament Culture and Education

Adult Education and Open Educational Resources. Paul Bacsich (lead author) September 2015.

This study reviews the current use of Open Educational Resources in Adult Education, assesses its potential and makes recommendations for policy interventions, taking account of the European Commission's policy frameworks. It incorporates new research on over 12 Member States.

Downloadable from <http://www.europarl.europa.eu/studies>

European University Association

MOOCs Massive Open Online Courses January 2014 (Michael Gaebel).

Provides a comprehensive description of the state of play of MOOCs in Europe as well as internationally, the financial aspects, implications for teaching and learning, openness and ownership, MOOCs for credit and points for further consideration for European higher education.

Downloadable from:

http://www.eua.be/Libraries/publication/MOOCs_Update_January_2014.pdf?sfvrsn=2

European Commission Digital Agenda for Europe

Action 68: Member States to mainstream eLearning in national policies

In 2013 the Commission published *Opening up Education: Innovative teaching and learning for all through new Technologies and Open Educational Resources* (Brussels, 25.9.2013. (COM 92013) 654 Final). This communication was intended to boost innovation and digital skills in schools and universities. The Commission will continue to support research and innovation actions on ICT for learning under the Research and Innovation Programme Horizon 2020.

Downloadable from: <https://ec.europa.eu/digital-single-market/en/opening-education>

HOME – Higher education Online: MOOCs the European way

www.home.eadtu.eu

Funded from 2014 – 2016 the aim of this project is to develop and strengthen an open network for European cooperation on open education, in general, and MOOCs in particular. “The partners will build an open institutional network on MOOCs based on European values

like openness, equity, quality and diversity”. A conference held in Porto in November 2014 concluded that “the strong support of the European Commission and governments is critical and should become a strategic orientation for the European Higher Education system. This will allow for the alignment of policies, regulatory frameworks, accreditation systems and quality criteria, as well as institutional strategies. Without these elements the innovative practices conducted by the academic communities cannot consolidate successfully” (Foreword in Jansen, D. & Teixeira, A. (Eds), 2014).

The Changing Pedagogical Landscape: new ways of teaching and learning and their implications for higher education.

www.changingpedagogicallandscapes.eu

This study was commissioned by the European Commission to provide research analysis for, and recommendations to, European governments that would aid them in promoting greater innovation in pedagogy and in the use of technology in higher education. The Changing Pedagogical Landscapes (CPL) study took place from January 2014-June 2015 and was designed to address the following objective: “to examine to what extent government strategies and higher education regulatory and accreditation, funding, quality assurance, assessment and certification frameworks support or hinder new modes of learning, and in particular increased use of technology in the teaching and learning process. The study arose from a concern that uptake of ICT in teaching and learning and innovation in pedagogy are still insufficient to enable the degree of flexibility and accessibility that will be needed for national economic success and the personal fulfilment of citizens. The report produced 11 recommendations which included the need to align strategies across Europe and to develop a common agenda to shape a roadmap for the future, as well as the need for quality assurance agencies to develop in-house expertise and establish processes that are sufficiently flexible to encourage rather than impede more flexible formats and for governments to introduce funding incentives.

Downloadable from <http://bookshop.europa.eu/en/the-changing-pedagogical-landscape-pbNC0415435/?pgid=lq1Ekni0.1ISR00OK4MycO9B0000R5Dy5idJ;sid=kdHllgeCjYbIJ1HBXPIW hWWn3LLWUABRIwl=>

EMundus Project

<http://www.emundus-project.eu/>

An initiative supported by the Erasmus Mundus program of the European Commission to strengthen cooperation among higher education institutions by exploring the potential of Open Approaches (for example, OER, MOOCs, and Virtual Mobility). The vision driving the project is “not a solution to the urging (sic) challenges of reducing the unitary cost of higher education, but rather a way to help establish long-term international partnership, aiming for an open international setting where universities cooperate based on their capacity not only to attract international students but to meaningfully cooperate and share experiences with counterpart universities.”

Open Education Europa. The Gateway to European innovative learning

www.openeducationeuropa.eu

Maintains the European MOOCs Scoreboard, an inventory of MOOCs offered in each country in each discipline and is a site for sharing news about events, EU projects, news, and articles on e-learning and available MOOCs. It publishes *eLearning Papers*, an online journal, under Creative Commons.

(http://www.openeducationeuropa.eu/en/open_education_scoreboard)

TeSLA Project

<http://tesla-project.eu/>

The TeSLA Project was formed to provide an ‘adaptive trust e-assessment system’ for assuring e-assessment processes in online and blended environments. The system is being developed taking into account quality assurance agencies in education, privacy and ethical issues and educational and technological requirements throughout Europe. The project will conduct large scale pilots to evaluate and assure the reliability of the TeSLA system.

The project has produced a report : *The Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) from the online teaching and learning perspective. ESG, 2015.* <http://tesla-project.eu/the-standards-and-guidelines-for-quality-assurance-in-the-european-higher-education-area-esg-from-the-online-teaching-and-learning-perspective/?platform=hootsuite>

Universities UK

Although now a little dated having been published in 2013 the Universities UK booklet *Massive Open Online Courses. Higher education’s digital moment?* is an excellent overview of the history and trajectory of MOOCs in the Anglosphere and provides useful advice to universities considering their potential involvement. Downloadable from <http://www.universitiesuk.ac.uk/highereducation/Pages/MOOCsHigherEducationDigitalMoment.aspx#.VycGzT8td-4>

Higher Education Academy

www.heacademy.ac.uk

Produced *Framework for Flexible Learning* which provides an overview of significant elements of flexible learning and is adaptable by institutions. It is intended to support managers, policy makers and planners and to inform decisions. Downloadable from: <https://www.heacademy.ac.uk/enhancement/frameworks/framework-flexible-learning-higher-education>

Also *Flexible Pedagogies: technology-enhanced learning* authored by Neil Gordon. Downloadable from <https://www.heacademy.ac.uk/flexible-pedagogies-technology-enhanced-learning>

HEA and Jisc (www.jisc.ac.uk) sponsored and published a series of Open Educational Resources case studies:

Student use of OER and Assessment. E. Quince, S Hatzipanagos & N. Pearce. (no date).

https://www.heacademy.ac.uk/sites/default/files/student_use_of_oer_and_assessment.pdf

Report on Students' views on learning methods and Open Educational resources in higher education. NUS and NUS Services. HEA, 2014.

<https://www.heacademy.ac.uk/sites/default/files/resources/nus-report.pdf>

Learner use of Online Educational Resources for Learning (LUOERL) – Final Report. P. Bacsich, B. Phillips & S.F. Briscoe. HEA, 2011.

https://www.heacademy.ac.uk/sites/default/files/learner_use_of_online_educational_resources.pdf

A similar series of reports was commissioned on MOOCs.

Bayne, S. & Ross, J. *The Pedagogy of the Massive Open Online Course: the UK view*. HEA Edinburgh, 6 March, 2014.

https://www.heacademy.ac.uk/resources/detail/elt/the_pedagogy_of_the_MOOC_UK_view

Wintrup, J., Wakefield, K. & Davis, H. *Engaged learning in MOOCs: a study using the UK Engagement Survey*. HEA, 22 January, 2015.

<https://www.heacademy.ac.uk/resource/engaged-learning-moocs-study-using-uk-engagement-survey>

Wintrup, J., Wakefield, K., Morris, D. & Davis, H. *Liberating Learning: experiences of MOOCs*. HEA, 22 January, 2015.

<https://www.heacademy.ac.uk/resource/liberating-learning-experiences-moocs>

International Council for Open and Distance Education (ICDE)

Has published in its news Archive a digest of “Ten useful reports on MOOCs and online education” which cover policy as well as technical aspects. Downloadable from

http://www.icde.org/index.php?option=com_content&view=article&id=153:ten-useful-reports-on-moocs-and-online-education&catid=23:news&Itemid=169

UNESCO Institute for Information Technologies in Education

Published a Policy Brief in July 2013 authored by B. Granger: *Introduction to MOOCs:*

Avalanche, Illusion or Augmentation? The report addresses the types of MOOCs, the nature of users, business models, global scope, risks and benefits, future directions and policy

implications. Downloadable from <http://www.iite.unesco.org>

Published a Policy Brief in November 2010 authored by A. Lane: *Global trends in the development and use of open educational resources to reform educational practices*.

Downloadable from <http://www.iite.unesco.org>

Association of Governing Boards of Universities and Colleges (USA)

Published *Massive Open Online Courses (MOOCs): A primer for University and College Board Members* authored by Brian D. Voss in March 2013. The primer outlines how MOOCs work, and their key challenges and Issues for University and College Governing Boards.

Downloadable from www.agb.org.

Centre for Benefit-Cost Studies of Education

Teachers College, Columbia University

Published in May 2014 *MOOCs: Expectations and Reality* authored by F.M. Hollands and D. Tirthali.

This Columbia University study of MOOCs from the perspective of institutions of higher education includes an investigation of definitions and characteristics of MOOCs, their origins, institutional goals for developing and delivering MOOCs, how MOOC data is being used, a review of MOOC resource requirements and costs, and a compilation of ideas from 83 interviewees about MOOCs and the future of higher education. The authors identify six major goals for MOOC initiatives and assess the evidence regarding whether these goals are being met, or are likely to be in the future. Downloadable from

<http://www.educause.edu/library/resources/moocs-expectations-and-reality>

Recent Relevant OLT Reports

Better 21C Credentials. Evaluating the promise, perils and disruptive potential of digital credentials. Professor Beverley Oliver, Project Leader. OLT Strategic Priority Project: Curate, Credential and Carry Forward Digital learning Evidence (SP13-3236), January, 2016.

http://www.assuringgraduatecapabilities.com/uploads/4/5/0/5/45053363/better_21c_credentials.pdf

Developing Australian academics' capacity: Supporting the adoption of open educational practices in curriculum design. Dr Acrina Bossu, Project leader. OLT Final Report (SD13-3407) 2016.

OLT Discussion Paper, 2015. *The quality of Australia's higher education system: How it might be defined, improved and assured.* Professor Belinda Probert, 2015.

OLT Final Report, 2015. *Exploring the role of technology in fostering sense of belonging in students studying by distance.* Dr Andrea Crampton and Dr Angela T. Ragusa.

OLT Final Report 2014. *Learning Analytics: a bottom-up approach to enhancing and evaluating students' online learning.* Associate Professor Josie Fisher, Dr Fredy-Roberto Valenzuela, Ms Sue Whale.

OLT Final Report, 2014. *Adoption, use and management of open educational resources to enhance teaching and learning in Australia*. Dr Carina Bossu, Professor Mark Brown, Mr David Bull.

OLT Final Report, 2014. *Exploring the student voice in online education*. Dr Trish Andrews, Dr Lorinne du Toit.

OLT Final Report, 2014. *Standards for Online Education*. Mitch Parsell.

OLT Final Report, 2014. *Quality management of online learning environments*. Associate Professor Dale Holt et al.

Report compiled for DEHub Summit, 15-18 February 2011 *Projects funded by the Australian Learning and Teaching Council in the field of 'technology-enhanced learning and its relation to distance higher education'*.

Good Practice Report, 2011. *Technology-enhanced learning and teaching*. Mike Keppell, Gordon Suddaby, Natasha Hard.

Good Practice Report, 2011. *Work Integrated Learning*. Professor Janice Orrell.

ALTC Final report, 2010. *Enhancing frameworks for assuring the quality of learning and teaching in university offshore education programs*. Winthrop Professor Thomas O'Donoghue (Team leader).

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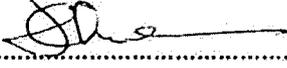
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Appendix A

Certification by Deputy Vice-Chancellor

I certify that all parts of the final report for this OLT grant/fellowship (remove as appropriate) provide an accurate representation of the implementation, impact and findings of the project, and that the report is of publishable quality.

Name:  Date: 6/5/2018

Appendix B – Proposal to revise project scope approved by Chair of Higher Education Standards Panel

Overview

The first three months of the project have served as a scoping exercise. Meetings with DVCs, groups of private providers, dual sector institutions, regional universities and the OERuniversitas as well as preliminary reading have crystallised a number of issues which lead to a proposed revision of the scope of the project.

Key issues arising from work to date.

- The HESF in its proposed revision is generally well accepted and not problematic.
- The concept of "alternative" delivery and learning methods no longer has currency. Mainstream higher education is increasingly offering blended modes for learning. Alternative has become mainstream.
- Both the HESF and the internal mechanisms providers use for quality assurance and enhancement are applicable and successfully applied to commonly used modes of delivery and blended delivery.
- A clear need is emerging in relation to disaggregation of learning experiences and the foreseeable trend towards learner demand to be able to credit disaggregated and/or informal learning for formal academic credentials.
- An increasing number of both private and public providers are recognising the need to be more agile and collaborative in response to the changing consumer and regulatory environment.
- There is a global move to be more responsive to social inequality through universal access to free and/or open education.
- The variety of models of and purposes for disaggregation is considerable and it is unlikely that the current internal institutional methods for credit recognition, credit transfer and RPL will be sufficiently robust or sophisticated to cope with the likely demand in the medium to long term.
- A variety of responses to these issues are in the very early stages of development in North America, UK, European Union, NZ and Australia.

Proposed revised scope of project

The Research Fellow will conduct an investigation of the nature and implications, for higher education standards and formal higher education programs, of emerging models and disaggregated student participation in learning:

- *Identification of emerging models of disaggregated, open educational process or informal opportunities for study that have implications for formal higher education.*
- *Analysis of drivers which are influencing the speed and impact of these developments.*

- *Review of current national and international approaches to verifying and assessing learning outcomes and standards from these types of learning for the purposes of assigning credit, RPL or credentials in the context of formal higher education programs.*

The OLT and the Panel expect the Research Fellow to exercise considerable leadership in the field, in consultation with both organisations, but envisage the Research Fellow's work might encompass the following topics

- *a summary of the challenges, to academic quality assurance, of disaggregated and informal models of student participation;*
- *an analysis of the ways in which the HES Framework supports quality assurance in these emerging models and areas in which future formulations of higher education standards may facilitate effective responses to emerging models;*
- *identification of any areas in which the higher education standards framework unnecessarily hinders flexibility and collaboration for disaggregated delivery; and*
- *review and analysis of emerging global approaches to compiling and assessing evidence of student learning outcomes, and credit mobility and credentialling in disaggregated learning environments.*

Christine Ewan

November 7, 2014

Appendix C – List of consultations/workshops/presentations

Meeting	Place	Date
Executive Go8	Canberra	September 2014
Innovative Research Universities DVC /PVC (A)	Teleconference	September 2014
Regional Universities Network DVC/PVC (A)	Teleconference	September 2014
Deputy and Pro Vice Chancellors (Academic) meeting	Melbourne	October 2014
COPHE Rethinking Assessment and Learning meeting	Sydney	October 2014
Council OF Australian Directors of Academic Development (CADAD) - workshop	University of Sydney	October 2014
Victoria ACPET members and dual sector providers	Melbourne	October 2014
Regional Universities Network DVC(A) meeting	Canberra	November 2014
Australian National Symposium on Open Education Resources	University of Tasmania	November 2014
National Peer Review of Assessment Forum	Melbourne	November 2014
NSW ACPET members	Sydney	November 2014
Queensland Universities Roundtable on Emerging Trends in Educational Delivery and their Implications	Queensland University of	December 2014

for Assuring Standards	Technology	
Queensland ACPET members	Brisbane	December 2014
Western Australian Network for Dissemination Teaching & Learning Forum	University of Western Australia	January 2015
Western Australia ACPET members	Perth	January 2015
Universities Australia Higher Education Conference Satellite meeting on Quality Assurance and Peer Review Networks	Canberra	March 2015
COPHE Quality Assurance and Benchmarking Workshop	Sydney	March 2015
South Australia ACPET members	Adelaide	April 2015
Flinders University educational development seminar	Adelaide	April 2015
HERDSA Annual Conference – Learning for Life and Work in a Complex World	Melbourne	July 2015
European Association for Distance Teaching Universities – the Online, Open and Flexible Higher Education Conference. Presentation entitled: <i>Assurance of higher education standards in disaggregated models of student participation and course delivery.</i>	Hagen, Germany	October 2015
Alison Le Cornu formerly Academic Leader for Flexible Learning, Higher Education Academy, UK	Oxford, UK	October, 2015.
Andrew Law, Director of the Open Media Unit, OU Patrina Law, Head of Free Learning, OU	Open University Milton Keynes, UK	October, 2015
Various Australian higher education stakeholders	Universities Australia Satellite Conference	March, 2016

Appendix D – Request for input to the review of emerging trends in educational delivery and the implications for future setting of standards for higher education (posted on HE Standards Panel website)

The focus of the task commissioned by the Higher Education Standards Panel and the Office of Learning and Teaching is on the development of a national consensus, informed by existing national and international practice, on the ways in which institutions can demonstrate to themselves and the regulator that their engagement in alternative, disaggregated and distributed delivery methods for award courses is compliant with the proposed Higher Education Standards Framework.

Key outcomes for the project:

- Facilitation of a national conversation on standards for emerging models of higher education delivery
- Identify areas where the proposed Higher Education Standards Framework might need modification /amplification /explanation
- Produce a guide/reference point/code of practice for HE Providers

Activities during 2014 – 2015 to achieve the outcomes:

- Review of existing and developing practice
- Broad stakeholder consultation in person, at meetings and via website and requests for information
- Forums to consult on and refine the formulation of advice for HE Standards Panel

Initial request for information and suggestions:

Higher education providers, individuals and groups are invited to provide input on the following topics. Responses will provide background information and directions for future consideration in discussion documents and planned consultation Forums.

1. If your institution is engaged in higher education delivery via the models listed below, do you experience any impediments arising from the current Threshold Standards or the proposed Higher Education Standards Framework? If so what are the difficulties?
 - online or open learning units;
 - work integrated learning (such as internships, placements);
 - units delivered by another provider (for example, overseas);
 - other (please specify) 'non-traditional' delivery modes?
2. How should robust assessment, verification of learning outcomes and assurance of standards be assured in these or other emerging models of study?
3. How should institutions assess requests for RPL or credit transfer for a qualification or study sequence gained through disaggregated study units (for example, Open Education Resource units or MOOCs)? What factors should influence the decision? Should a maximum percentage of the degree be allowable by RPL?
4. Are you aware of or considering any policies for addressing RPL or credit transfer for disaggregated or non-traditional forms of study?
5. As these forms of study become more prevalent, what types of safeguards and quality control measures do you believe will be necessary?

Please incorporate reference to policy documents or web links that are informative in your response and **email by 2 November 2014** to the following address:

oltfellowhestandards@bigpond.com

Use of information provided

This request for information is **not** part of the Higher Education Standards Panel's formal consultation or feedback process and individual responses will not be shared with the Panel or any other agency.

The information provided will be used by the Research Fellow to inform the development of discussion papers as the basis of future consultative Forums. All information will remain confidential and examples, where offered and used, will be de-identified in the discussion documents.