

Transformation of Open Distance Flexible Learning at the intersection of national reform of vocational education and training

by

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Abstract

When the realisation of transformational change to an education organisation's system of open distance flexible learning (ODFL) becomes a significant factor in the radical reform of a national network of VET (vocational education and training), the intersection of these two factors becomes a game changer in innovating the way New Zealanders access vocational higher education.

Open Polytechnic of New Zealand (OPNZ) is a specialist provider of ODFL with a history that spans more than 70 years. In a strategically determined way, the polytechnic has gone about transforming itself into a fully digital, online provider of ODFL. Key factors in this transformation have included: investment in the development of its own digital learning management system; the translation of print-based courses and programmes into digital education resources; and, the disaggregation of activities that strengthens the value chain and facilitates the offering of ODFL component services to learners and other external stakeholders.

New Zealand, a small Pacific nation with a population of 4.7 million people, is wrestling with the necessities of making massive changes in the way it delivers vocational education and training to those in work and young people seeking ways to establish careers. In a radical proposal to reform the country's VET sector, the New Zealand Government is looking to harness educational innovation and technology-based solutions to leverage a complete overhaul of VET.

In this presentation two of the architects and implementers of OPNZ's transformation change programme step through how this change has been designed and brought about. They then go on to carefully examine the contribution that ODFL and Open Polytechnic's transformation will make to the reform of New Zealand's VET sector. The presentation provides contemporary insights into the role of ODFL in the remodeling and innovation of a national system of vocational education.

Introduction

To bring transformational change to a specialist distance education organisation with a history of 70 plus years of traditional print-based distance learning has meant a total reimagining of how open, distance and flexible learning (ODFL) is experienced by the organisation's learners. This is the story of how Open Polytechnic of New Zealand (OPNZ) has delivered such change.

Similarly, to propose an overhaul of one country's approach to the national provision of vocational education and training (VET) requires transformational change of another kind, and at significant scale. That is the story that is to be New Zealand's reform of VET.

This paper is an examination of the relationship between one organisation's transformational change and the potential contribution of this change to national, large scale reform of VET.

New Zealand and Vocational Education and Training (VET)

At the heart of VET in New Zealand is the extensive involvement of government who establish strategy, set policy and provide funding to a variety of organisations. There are three principal organisational identities with whom learners and trainees engage. First, Industry Training Organisations (ITOs). There are 11 ITOs, each of which has a recognised gazetted industry coverage and a statutory role established in the Industry Training Act 1992. The role of ITOs is to:

- set national skill standards for their industry
- provide information and advice to trainees and their employers
- arrange for the delivery of on and off-job training (including developing training packages for employers)
- arrange for the assessment of trainees and
- arrange the monitoring of quality training.

(New Zealand Qualifications Authority, 2019)

Established under the Education Act 1989 are the publicly owned and funded group of Institutes of Technology Polytechnics (ITPs). These organisations are recognised as Tertiary Education Institutes, of which there are 16. All ITPs, except for the single specialist provider of distance education – Open Polytechnic of New Zealand (OPNZ), are regionally located and dispersed throughout the country.

Also featuring in the provision of VET are registered tertiary education organisations (TEOs) that are privately owned and operated. These organisations are recognised as Private Training Establishments (PTEs). These organisations may also be the recipients of public funding. Companies and government training establishments are likely to register their staff training operations as PTEs (New Zealand Qualifications Authority, 2019).

Early in 2018, the New Zealand Government, through its Minister of Education, signalled its intention to undertake two separate reviews that concerned the national provision of VET. One review would focus on the ITP sector, the other on the provision of vocational education and training. The former led by the Tertiary Education Commission (TEC), and the latter by the Ministry of Education.

After apparently unsatisfactory progress with the reviews, both were collapsed into a single review in the latter part of 2018. This became the Review of Vocational Education (RoVE). RoVE established three main proposals for change:

1. New roles for providers and industry bodies (ITOs)
2. A New Zealand Institute of Skills and Technology serving all of New Zealand
3. A unified funding system

(Tertiary Education Commission, 2019)

The Minister of Education undertook public consultation on these proposals from February to April 2019. When introducing this consultation, the Minister was explicit about the situation that VET in New Zealand was facing. In a foreword to the consultation document he said, “[A]t a time when we’re facing critical skill shortages, our polytechnics and institutes of technology are going broke. [...] It’s time to reset the whole system and fundamentally rethink the way we view vocational education and training, and how it’s delivered” (Ministry of Education, 2019).

There has been strong engagement with the consultation process. There were over 180 events and consultation meetings held nationally during the consultation period, and in excess of 2,900 submissions were made. (Ministry of Education, 2019).

New Zealand: the socio-political context

Since the 1990s, ongoing tertiary education sector reform, coupled with deliberate policy to steadily reduce the level of the government’s funding contribution, has resulted in a sector that is competitive in nature, rather than complementary. Responsive to their competitive environment, and the natural organisational imperative for growth, tertiary education organisations, including those in the ITP sector, have entered into increasingly vigorous competitive behaviours to attract EFTS (equivalent full-time students) funding from the government (Patterson, 2001). This has been accompanied by government policy that encourages all tertiary education providers to be active in their provision of education to international students.

The election of 2017 saw a shift from a centre-right National Party led coalition to a new government formed by the left-wing Labour Party and supported in coalition by both the Greens and New Zealand First. This change in government has ushered in a distinct shift in the policy settings for the provision of tertiary education in New Zealand.

The Labour Party’s 2017 election campaign included a promise to provide fees free tertiary education for those coming to tertiary study for the first time, with effect from 2018. This signalled a reversal of the previous governments’ approaches to reducing the extent of the government funded contribution to the cost of tertiary education provision. This has been accompanied by changes to the provision of visas to international students seeking to study in New Zealand, which has seen a decline in the number of international students enrolling in lower level programmes of study. Both the decline in international student enrolments, and a demographically related decline in the total population of school leaver-aged New Zealanders, has impacted heavily on the funding available to ITPs. Hence the earlier referred to comment of the Minister of Education that ITPs are “going broke” (Ministry of Education, 2019).

Soon after being elected, the Labour coalition government, led by the Minister of Education, announced a wide-reaching initiative that would begin a series of conversations about education nationally, Kōrero Mātauranga (Ministry of Education, 2019). The RoVE is being conducted under the umbrella of the Kōrero Mātauranga initiative.

The Reform of Vocational Education

On 1 August 2019, the Minister of Education announced the decision to proceed with the proposals on the Reform of Vocational Education following consultation with education providers, employers, industry, learners, iwi and communities around the country.

The Government will now proceed with its stated aim to create a strong, unified, sustainable system for all vocational education that is fit for the future of work and delivers the skills that learners, employers and communities need.

“A unified, strong and sustainable system for vocational education and training will help improve the skills of all New Zealanders no matter where they are in their education or career and will support a growing economy that works for everyone,” (Minister Hipkins, Minister of Education).

The Reform of Vocational Education includes seven key changes that will create a unified vocational education system:

- Create Workforce Development Councils: Around four to seven industry-governed bodies, to give industry greater leadership across vocational education.

- Establish Regional Skills Leadership Groups: These would provide advice about the skills needs of their regions to the Tertiary Education Commission (TEC), workforce development councils, and local vocational education providers.
- Establish Te Taumata Aronui: A group to help ensure that the Reform of Vocational Education reflects the Government's commitment to Māori Crown partnerships.
- Create a New Zealand Institute of Skills & Technology: A unified, sustainable, public network of regionally accessible vocational education, bringing together the existing 16 Institutions of Technology and Polytechnics (ITPs).
- Shift the role of supporting workplace learning from Industry Training Organisations (ITOs) to providers: The new Institute and other providers would support workplace-based, on-the-job training as well as delivering education and training in provider-based, off-the-job settings, to achieve seamless integration between the settings and to be well connected with the needs of industry.
- Establish Centres of Vocational Excellence: CoVEs will bring together the Institute, other providers, workforce development councils, industry experts, and leading researchers to grow excellent vocational education provision and share high-quality curriculum and programme design across the system.
- Unify the vocational education funding system: A unified funding system will apply to all provider-based and work-integrated education at certificate and diploma qualification levels 3 to 7 (excluding degree study) and all industry training.

Transformational change at Open Polytechnic of New Zealand

Open Polytechnic of New Zealand (OPNZ) is an Institute of Technology & Polytechnic (ITP) that is distinctly different from the other 15 ITPs. OPNZ is a specialist provider of distance education, a role that it has had in the provision of VET in New Zealand since its establishment over 70 years ago in an era of intense wide-scale post-war infrastructure development.

Today, OPNZ is New Zealand's preeminent provider of vocational education and training utilising the ODFL modality. The Polytechnic offers in excess of 100 programmes that lead to approved and accredited qualifications listed on the New Zealand Qualifications Framework. These qualifications range from lower level certificates to degrees and graduate diplomas. OPNZ has significant national reach – enrolling one in every four learners in the ITP sector. This equates to around 30,000 learners enrolling with OPNZ each year, nearly all of whom are adult learners (20 years of age and over), most in the workforce combining work and study. The distribution of learners mirrors the population and demographics of the country. Thus, the majority of OPNZ's learners live in the main urban centres where they have access to a range of campus based- learning options. Instead, they choose to utilise the flexibility and study anywhere, anytime features that OPNZ's ODFL delivery model provides.

A key feature of OPNZ's strategic management has been recognition that the traditional world of print-based distance education would be significantly changed and disrupted by developments in digital technology, and people's connectedness with the internet and its accompanying access to information, services and social media. Informed by the Polytechnic's strategic plans, the organisation began a planned programme of transformational change in 2014, the Transformation Change Programme (TCP), led by its own developments in digital technology.

In New Zealand, the Open Polytechnic is a leader in the development of education technology and this advancing capability is enabling the transformation of the Polytechnic into a state-of-the-art online distance learning organisation. Over the last five years, OPNZ has invested over \$NZ25 million in the development of its own online learning platform (iQualify), digitisation of education resources, reshaping the roles of staff to deliver greater specialisation, and growing the organisation's engagement with other tertiary education providers, business partners and the school education sector in New Zealand (Open Polytechnic New Zealand, 2018).

Digital innovation

Key to the transformation of OPNZ has been its willingness to invest in its own digital technology. Previously the Polytechnic had been an early adopter and exponent of the Moodle learning management system. For a period of 10 years, commencing in 2007, the Moodle platform was the Polytechnic's go to solution for digitally supplementing learner resources and managing the learners' online activities.

A growing realisation of the limitations of Moodle and other learning management systems in terms of OPNZ's own online learning objectives eventually saw the organisation take the bold step of deciding to invest in the in-house development of its own digital learning platform. In 2014 this platform, iQualify, began to take shape and the first learning resources to be offered on the platform were available in the latter stages of that year.

Since 2014, OPNZ has continued to invest in the development of both the platform technology and the digital learning resources that are specifically designed and authored for platform publication. In this period, the iQualify platform has also attracted a significant number of partner organisations who use the platform for learning, training and professional development purposes in their own organisations.

While investment in OPNZ's digital learning platform has been a key feature of the organisation's strategic development, other investment in digital technology has continued apace in a number of other key areas. This includes the large-scale development of a new student management information system, and technology that supports the administration and management of the Polytechnic's assessment systems, adding sophistication to already well-established systems and practices for assessment management.

Learner analytics

Empowered by the availability of data from the iQualify platform, the student management and assessment marking and administration systems, OPNZ has been able to make significant advances in using information to better understand the activities and behaviours of the Polytechnic's learners.

Learner analytics are based on flows of data from multiple systems that are synthesised and analysed to present useful perspectives of how the learner is engaging and progressing with their chosen learning activities. The logical extension of this ability to establish views of a learner's engagement and success is the systematic identification of those learners whose engagement, or lack thereof, and achievements in tasks, activities and assessment mean they are not on a pathway to success. This identification is used to support the initiation of a range of interventions and learning support actions that seek to secure successful outcomes for the learner.

Assessment

Transformational change, which has unbundled and emphasised the enhancement of component parts of OPNZ's value chain, has led to the establishment of an Assessment Centre as a distinct organisational identity. The premise on which the Centre's activities has been established is an educational model of delivery in which learners have access to summative assessment activities, can avail themselves of formal systems for the recognition of prior learning, and find pathways to credit recognition, independently of their engagement in formal and structured learning activities (Seelig, Cadwallader, & Standring, 2019).

The Assessment Centre engages a significant adjunct workforce. This workforce flexibly undertakes the tasks associated with the design and development of assessment, the management and marking of learners' summative assessment activities, quality assurance and moderation, and the development and administration of systems for recognising prior learning.

The separation of summative assessment activity from formal learning activity is a vital unbundling of education provision that secures the flexibility that OPNZ requires for its learners. It aims to deliver a model of education provision where the learner has decision making about how and when to engage in assessment, and even what type of assessment activity is suited to them. Not only learner-centric, but learner driven.

Unbundling of Faculty

Finding ways to enhance the component parts of Open Polytechnic's ODFL value chain and create an organisational environment where specialisation is fostered and of benefit to the learning experience, has driven OPNZ to closely examine the role and responsibilities of Faculty.

This examination revealed that Faculty roles were not necessarily structured in ways that easily allowed this critical organisational resource to be responsive to the transformational changes the Polytechnic sought.

The following graphic offers a depiction of the Faculty role and responsibilities prior to an unbundling of the role of OPNZ's academic staff members.

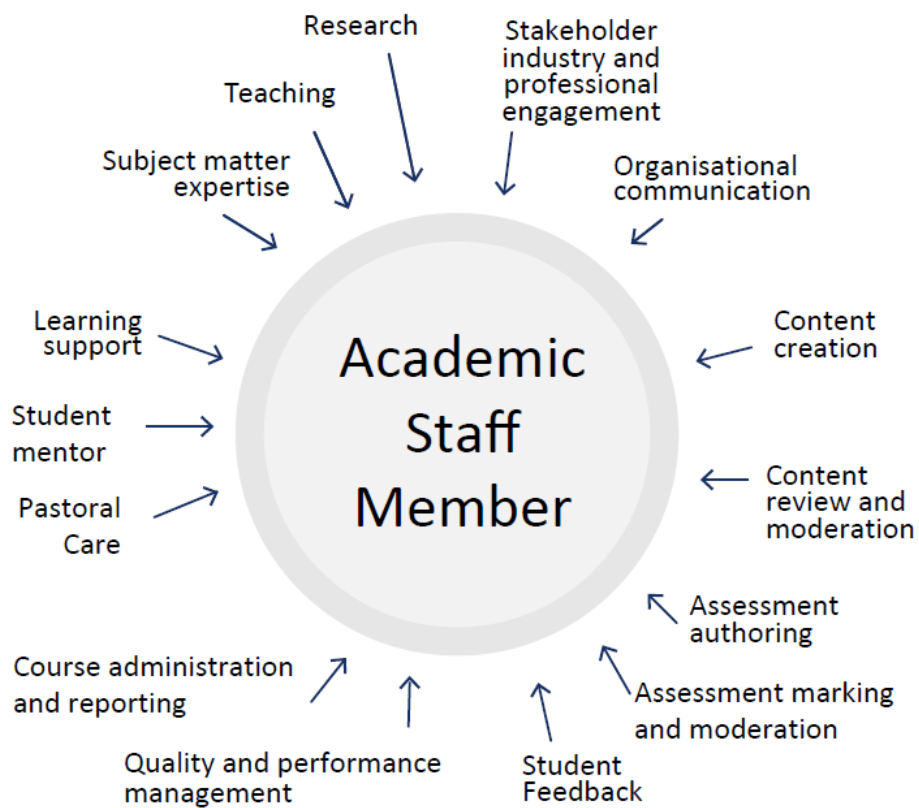


Figure 1. Traditional Roles of an Academic Staff Member

Characteristic of the ODFL learning organisation is the disaggregation of parts of the value chain that provide a complete learning experience for the distance learner. An example of this is the separation of the development of educational resources, courseware and assessment from the activity of teaching. Given that ODFL is characterised in this fashion, sustaining the role of Faculty as a holistic one, as depicted in the above graphic, is well out of step with this.

OPNZ's Transformation Change Programme conceived of a set of activity groupings as a way to have function precede the discernment of organisational form. These activity groupings are shown in this graphic:

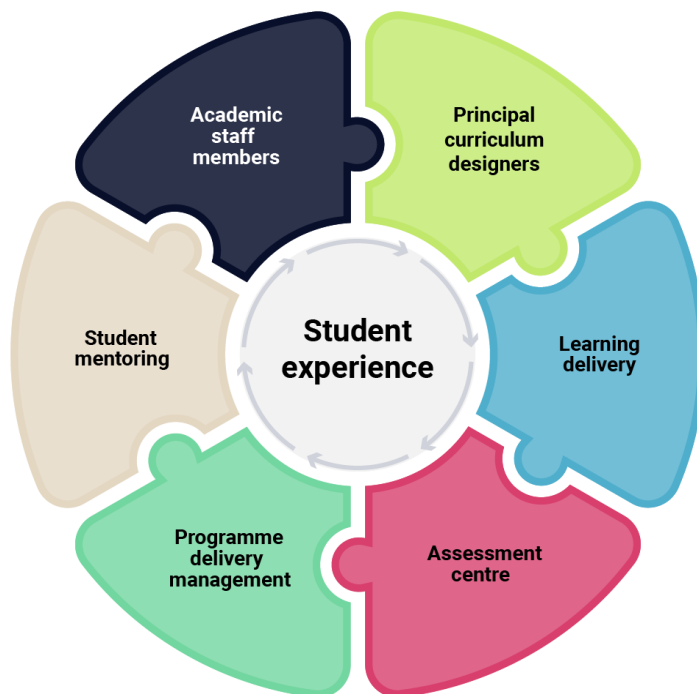


Unbundling activities driven by:

- recognising that some of the responsibilities are complementary and might be done by experts
- resetting the resource mix
- bringing consistency to the learner experience
- making the most effective and efficient use of staff time and talent across OPNZ.

ODFL is already based on experts working together to design, develop and deliver learning to students. The Transformation identified activity groups that, in ODFL, logically lead to expert roles.

Figure 2. The activity groupings have then been translated into organisational identities or roles within a transformed organisation structure.



Interdependent specialisation for the student experience means:

- refocusing the attention of Academic Staff Members to teaching, research and maintaining currency in their area of specialty
- increasing commitment to a 'one delivery' model design and bringing 'at scale' as an element to practice
- practice is standardised, informed by centres of expertise who apply specialist skills and maintain an enterprise view of resources and tools across all fields of study
- this helps us to place the learner at the centre of everything we do.

Today, our unbundled roles, filled by specialists and experts, work together to provide an optimal ODFL experience. All roles have an important part to play in Open Polytechnic's *ako*.

Figure 3. The Student Experience, reflecting the unbundled roles resulting from organisational change.

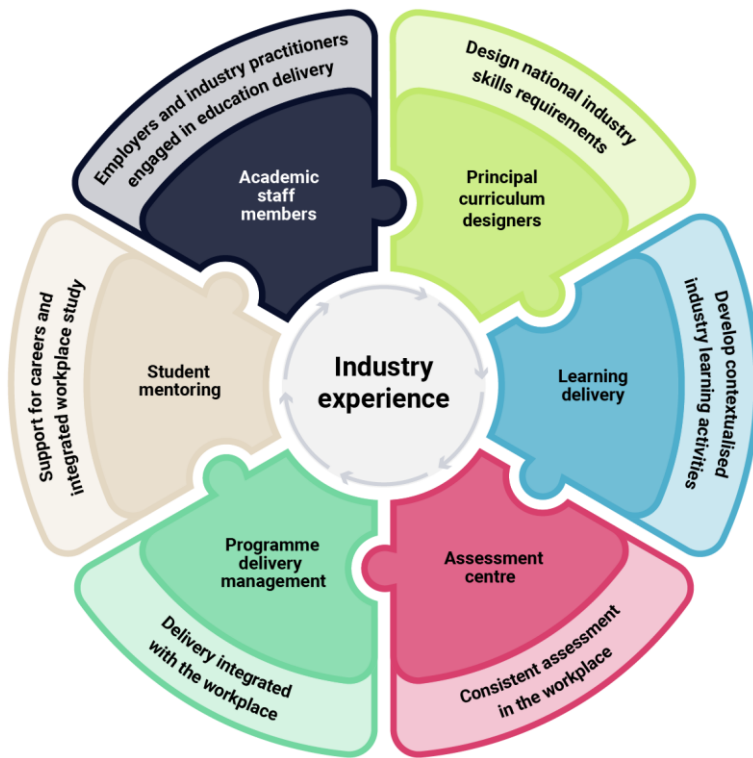


Figure 4. Working with Industry

Interdependent specialisation for industry delivery means:

- employers have resources and appropriate support to enable them to train their apprentices
- online mentoring for apprentices and trainees is responsive to learner demand, and informed by data analytics
- workplace assessment is nationally consistent and coordinated
- practice is standardised, informed by centres of expertise who apply specialist skills and maintain an enterprise view of resources and tools across all industry fields
- this helps to place the learner at the centre of their industry training journey.

The unbundled roles, filled by employers, industry specialists and experts, work together to provide an optimal learning experience.

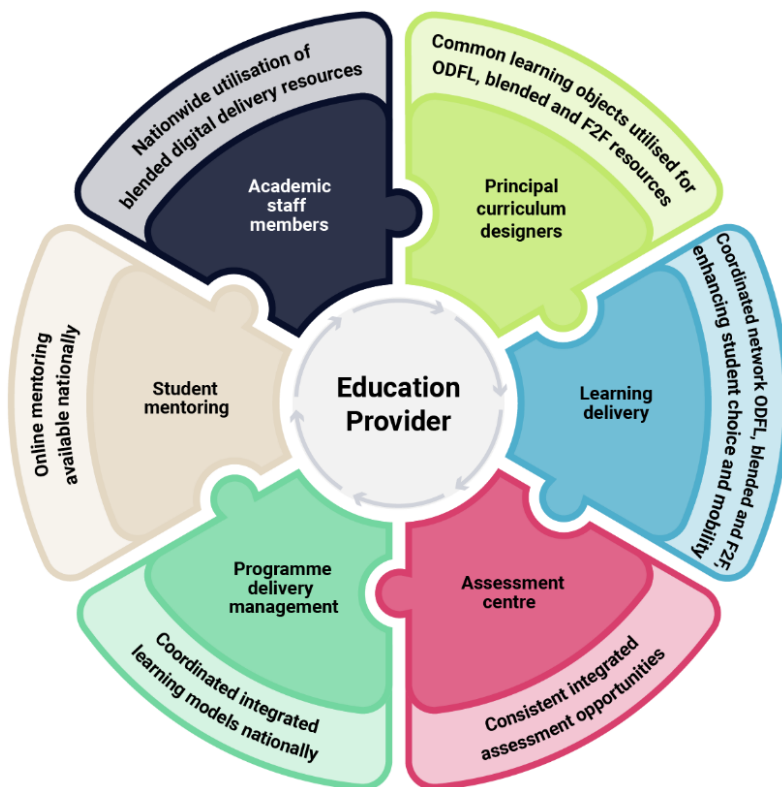


Figure 5. Working with delivery partners

Interdependent specialisation for education providers means:

- education providers can utilise digital resources for a variety of purposes and modalities, including learning resources (blended and on-job), assessment resources and commercial products and services for their regions
- online mentoring and assessment can be provided at scale, flexibly across the country
- workplace assessment is nationally consistent and coordinated
- practice is standardised, informed by Centres of Vocational Excellence who apply specialist skills and maintain an enterprise view of curricula across all provision
- this helps learners move seamlessly between delivery organisations and accommodates faster, slower, transient or intermittent learning journeys.

The unbundled roles, in support of education providers, provide flexible, consistent and optimal learning experiences.

OPNZ's programme of transformational change has very intentionally brought about change to the Polytechnic's organisational structure that ensures that roles in the organisation, their relatedness to one another, and the activities that are assigned to them, represent alignment with the ODFL educational delivery model that the organisation has designed.

ODFL, OPNZ and New Zealand's reform of VET

The proposition that this paper seeks to present, and credibly establish, is that the disaggregation inherent in the ODFL delivery model, and specifically the ODFL model that has been transformatively adopted by OPNZ, offers significant opportunities and benefits to a future system of vocational education and training in New Zealand.

The following sections of the paper describe this proposition.

The Potential ODFL contribution to RoVE

The need for widescale reform of New Zealand's vocational education and training provision is due to a number of factors. These factors include: skills shortages in a number of critical industries, accompanied by the changing world of work, the creation of new ways to work, new jobs and the accompanying requirement for retraining and reskilling a future workforce; the financial position of a number of ITP organisations, the sector in totality and the need to secure the future viability of ITP provision of VET; the confusion that exists between the role of the ITO sector, as arrangers of training, and the role of the ITP sector as providers of education and training; the elimination of undesirable competition and unnecessary duplication of educational resources; and, the adequacy of the funding system.

In this paper the authors are proposing that there is much about OPNZ and its unique (to New Zealand) approach to the provision of distance education, utilising an ODFL delivery model, that can be harnessed and used in the reform of vocational education.

Under the Government's final decisions announced following the RoVE consultation process, the new (provisionally named) New Zealand Institute of Skills and Technology (NZIST), will be legally constituted on 1 April 2020, at which point the 16 ITPs will become temporary subsidiaries of the new organisation. Over a transitional period, they will become fully incorporated into the new entity, with this process concluded by no later than December 2022. While much detail remains to be worked out in the final implementation, the broad contours of New Zealand's new VET system are clear. NZIST, directed by strong input from employers and industry, will manage and deliver both on-job industry training and off-job VET for some 260,000 trainees and learners, with a corporate centre and a yet-to-be-determined number of (potentially consolidated) regional delivery arms and role for Open Polytechnic's specialist ODFL capability. The emphasis will be on system-level integration, collaboration, standardisation and removal of unnecessary duplication, while retaining the ability for limited customisation to meet specific regional or other needs.

Within this context, the immediate and obvious area to leverage OPNZ's dis-aggregated capability is its learning design and development function and large bank of digital courseware. Historically, the 16 ITPs each established their own programmes of study and production of educational resources – a situation compounded by Industry Training Organisations also engaging in widescale development and production of educational resources for in-work training and assessment. The new world will see a progressive move to a single NZIST version of any given qualification (at sub-degree level; degree qualifications sit outside the scope of VET), with standardised courses shared through the regional network. In general terms (and accepting nuances of some regional specificity), most will agree that for the benefit of learners, employers and the public purse, this is the approach that should have operated all along, but which, some limited examples of collaboration aside, proved impossible to achieve in a VET sector composed of largely autonomous and often competing organisations.

OPNZ's 70-year history of providing distance education and more recent major investment in digitisation and transformation means that it has not only by far New Zealand's largest learning design and development capability and supply of digital courseware, but also the systems and processes for standardised, quality-assured production and distribution (whether to individual learners or partners). Those established processes also include maintaining the currency of large-scale courseware resources, a task more complex and costlier than those unfamiliar with ODFL often allow.

Further at the network level, a stated intent of RoVE is to eventually establish centralised core student and learning systems and shared services. OPNZ's investment in iQualify offers the future opportunity for all VET learning resources to be delivered on a single learning management system where further investment will directly deliver benefits to the New Zealand Institute of Skills and Technology and the learners who access and use these resources. The iQualify platform is designed to support both fully online and blended learning. Open Polytechnic uses iQualify for the former; most of our partners for the latter. It is thus able to operate across all of the on-job and off-job learning environments NZIST will deliver. An added advantage is that from April next year, NZIST will fully own iQualify.

The incorporation of on-job training into the new NZIST is another area where Open Polytechnic's digital learning capability could add significant new value to the VET system by providing standardised online services to support workplace-based training and assessment conducted by regional delivery arms. The same approach could easily be deployed across provider-based blended learning, for example, to enrich regional provision with needed programmes that may otherwise be uneconomic to deliver. In this way, all of the components of OPNZ's dis-aggregated and scalable value chain could be deployed as required across NZIST's national network of regionally-based provision. These include enrolment, library and other academic services, learning support, and assessment design and marking.

Conclusion

Open Polytechnic's major programme of digital and organisational transformation further differentiates its delivery and enhances its flexibility as an online learning organisation. This institutional reengineering that disaggregates functions and unbundles processes and services, holds potential for both improved performance in the direct delivery of online learning, and for enabling a more integrated, responsive and collaborative network of provision within the context of New Zealand's current VET reforms.

Not only can OPNZ be asked to continue to provide specialist ODFL education provision, but it is also apparent that there is recognition that OPNZ has a wider contribution to make.

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