

CORE  
RESEARCH PAPER

# Virtual Learning as an Impetus for Educational Change: Charting a Way Forward for Learning in New Zealand

Michael K. Barbour and Derek Wenmoth

## Abstract

New Zealand has a long history distance education in the schools sector, beginning with The Correspondence School over 90 years ago. Similar to many jurisdictions, as technology has evolved the schools sector has also evolved in how it has used that technology to provide learning opportunities at a distance. Each technology – from the print-based correspondence model to the current Internet-based virtual learning model – has forced educators to re-think how these educational opportunities are structured and delivered. Over the past two years, there have been significant events within the virtual learning community in New Zealand that place it on the cusp of being the catalyst for a fundamental re-thinking of how all education is delivered within the schools sector. In this report, we outline the history of distance education in New Zealand. We also describe two recent reports that outlined potential future directions for virtual learning organizations in New Zealand. Finally, we consolidate those visions – along with recent educational developments – to chart a vision for the future of education in New Zealand through virtual learning.

## About the authors:

### Michael K Barbour

Director of Doctoral Studies, Farrington College of Education  
Sacred Heart University

### Derek Wenmoth

Director - e-Learning  
CORE Education

## CORE Education's Research Reports

CORE Education is a New Zealand based not-for-profit organisation that has been providing world-class professional learning and development, research, and thought leadership for over ten years. At CORE we have a strong desire to transform education, and we believe that new technologies are an exciting way to engage learners across all education and training sectors. The CORE Education research reports are intended to provide insights, promote discussion, and inform school leaders and teachers with research that will aid progress in education.

## Introduction

The past two years there have seen significant changes in the provision of virtual learning in the schools sector in New Zealand. During 2010 the Ministry of Education, along with CORE Education, revised and updated the *Learning Communities Online Handbook* – a document designed to provide e-learning clusters with guidance as they moved on their journey from a conceptual idea to a mature and sustainable cluster (Ministry of Education, 2011). The Ministry of Education also announced its plans for the Ultrafast Broadband in Schools (UFBiS) initiative that will ensure Internet access to 95% of the nation’s schools by 2016 (Ministry of Education, 2012). In 2011, the Distance Education Association of New Zealand (DEANZ) commissioned a study into the development of virtual learning in New Zealand (Barbour, 2011), while the Virtual Learning Network-Community (VLN-C) commissioned CORE Education provide future direction to this national virtual learning organisation (Wenmoth, 2011). Later in the year, the Ministry of Education announced that it would create a Network for Learning (N4L) to provide significant tools and resources for schools (Ministry of Education, 2012). Finally, this year a Parliamentary Inquiry into twenty-first century learning environments and digital literacy was conducted (New Zealand Parliament, 2012).

The purpose of this white paper is to examine the current state of virtual learning in the schools sector, as well as chart a vision for the virtual learning in 2016 and beyond (i.e., following the completion of the UFBiS initiative). In this document, first, we trace the history and development of the main types of providers of distance education to establish the context for the current provision of online distance and blended learning in New Zealand. Second, we examine the organisational models designed to allow for the continued development of these initiatives. These models are outlined in the DEANZ’s report entitled *Primary and Secondary e-Learning: Examining the Process of Achieving Maturity* and the CORE Education report entitled *Business Case: Virtual Learning Network Community (VLN-C)*. Finally, we consolidate and expand these two organisational models to chart a specific vision for the future of education in New Zealand’s school’s sector.

## Background and History of Primary and Secondary Distance Learning in New Zealand

New Zealand has a long history of distance education in the schools sector. There are five main types of providers that are currently responsible for the delivery of distance education, including online and blended learning, in the schools sector in New Zealand: *Te Aho o Te Kura Pounamu*/The Correspondence School (The Correspondence School/Te Kura); approximately 20 Virtual Learning Network (VLN) e-learning clusters; three regional health schools; 13 urban-based, regional loops; and some tertiary institutions.

In this section, we trace the development of these groups both to provide a context of the current state of online distance and blended learning, and to give the reader an understanding of how we have arrived at the current situation.

The introduction of distance education to the schools sector began around 1922 with the introduction of The Correspondence School (Rumble, 1989). During its first year of operation, The Correspondence School served approximately 100 primary students and “all the lessons and letters to students were written by hand by the School’s first teacher, Miss Janet Mackenzie” (The Correspondence School, n.d., ¶ 1). By 1928, the school had grown to 720 primary students and the first group of secondary students was admitted with an initial cohort of 50 students. The 1930s saw the roll of The Correspondence School grow to approximately 2000 students, and it also saw the introduction of educational radio broadcasts as a part of school’s delivery model. Sixty years later, The Correspondence School was also among the first in the schools sector to experiment with video conferencing in the 1990s (Roberts, 2009; Wenmoth, 2005), and began to offer online courses through the VLN brokerage site in 2009 (Roberts, 2010).

The Correspondence School was not the only schools sector organisation to explore e-learning and virtual learning options during this time. In 1992 the New Zealand government commissioned the *Consultel Report* (Buckrell et al., 1992), which explored how recent developments in telecommunications technology might be used for learning in

all sectors. It was around this time that many rural area schools were facing challenges with providing a wide range of curricular opportunities, particularly in the senior secondary levels. These challenges led seven area schools in the Canterbury region to create the Canterbury Area School's Association Technology project (CASAtch). By the beginning of the 1994 school year these seven area schools were linked by using an audiographics system, with each school allocating a teacher to teach one course and students then, from any of the seven schools could enrol in that course (Wenmoth, 1996). The audiographics technology allowed the schools to be linked together and for the courses to be distributed among the participating schools. In 1996, three secondary schools joined CASAtch and the project was revised as the Canterbury Technology Schools Project (CANTAtch).

The *Kaupapa Ara Whakawhiti Mātauranga* (KAWM) project began in 2000 and was the first e-learning cluster to develop (Roberts, 2009). The KAWM project:

*focused on using information and communication technologies to strengthen curriculum delivery and broaden options for Maori learners in schools, including boarding schools... [and addressed] the shortage of Maori-medium subject specialist teachers at the secondary level through the provision of 'expert teachers' to provide lessons via video conferencing across a number of Wharekura sites.* (Stevens & Moffatt, 2003, p. 131)

The KAWM project eventually grew to include five clusters (Waiti, 2005), and more than 20 schools from Kaitaia to Invercargill (Roberts, 2009).

Following the creation of CANTAtch, the next region to form an e-learning cluster that included the provision of distance education was the Otago region. The OtagoNet e-learning cluster was first established in 2000 by the Community Trust of Otago as a partnership between seven schools to create a learning community for teachers (Treadwell, 2010). Like many of the e-learning clusters, its main intent when it was created was not necessarily the provision of distance education. In the case of OtagoNet, the vision was "to create a broadband VLN linking the Otago Secondary and Area Schools, to strengthen existing relationships and collaboration of these rural and geographically dispersed schools" (Pullar & Brennan, 2008, p. 9). More recently, Lai and Pratt (2009) described the OtagoNet as a small cluster of nine rural schools – ranging from between 10 and 275 high school students – in a region that has an average of 15 people/kilometre<sup>2</sup>.

FarNet was another one of the early e-learning clusters that developed. It began in 2001 as one of four pilot projects funded under the Digital Opportunities Programme (DigiOps) (Stevens & Moffatt, 2003), with an initial community of 10 area and secondary schools in Northland (Bennett & Barbour, 2012). The purpose of the FarNet e-learning cluster was to create a virtual professional development community that used a dedicated website to foster the learning communities (Rivers & Rivers, 2004). One of the consequences of this project was that it allowed the participating schools to obtain the necessary hardware and software, as well as the expertise among the teaching faculty, to be able to leverage these tools for later use in distance education (Parr & Ward, 2005). One of things to notice about the FarNet e-learning cluster was that the cluster was not primarily developed for the purpose of delivering distance education. In fact, it wasn't until it entered its second phase of development – following the completion of the project outlined under the DigiOps funding – before FarNet began to offer distance education. This was a common trend among some of the early e-learning clusters, many of which were also created under a variety of national funding programmes (Powell & Barbour, 2012).

At the time of the development of the OtagoNet Cluster and the first real use of video conferencing to enable the connection between schools, the eSection at The Correspondence School was established to transition the print-based activity of the Correspondence School to a virtual learning environment. The OtagoNet cluster approached the eSection to assist with providing assistance with courses they weren't able to provide locally. From this initial relationship an initiative – in partnership with the Ministry of Education – developed to formally organise the existing e-learning clusters into a larger, national effort known as the VLN (Wenmoth, 2011). The VLN was designed to provide a brokerage service where participating clusters could advertise the courses they were offering and make them available to schools in other regions. The VLN also provided the mechanism where initially The Correspondence School, and later the Ministry of Education, provided centralised services – such as a video conferencing

bridge and asynchronous e-learning tools (e.g., a learning management system, an e-portfolio system, etc.); while the individual e-learning clusters would be responsible for using these tools to provide online distance education and other services based on their individual, local needs. In addition to the brokering of services, in 2004 The Correspondence School and the Ministry of Education also provided the initial version of a *Learning Communities Online Handbook* to assist schools in the formation of e-learning clusters. This document provided those interested in forming a cluster, or leading existing clusters, a matrix to guide development through the phases from initial conception to implementation.

Following the development of these e-learning clusters, along with the creation of the VLN, many have argued that various information communications technology (ICT) strategies put in place by the Ministry of Education have accounted for the growth in the effective use of ICT to support learning and teaching (Bolton, 2008; Cowie, Jones, & Harlow, 2008; Dewstow & Wright, 2005; Sahin & Ham, 2010; Wright, 2010); while others have argued that the funding programmes that accompanied these strategies, and other policy documents, have created a framework to encourage the growth of the VLN e-learning clusters and the use of virtual learning (Powell & Barbour, 2011). One such funding initiative in 2007 was the provision of 18 administrative salary units to support the leadership of the e-learning clusters (known as ePrincipals). The purpose of these ePrincipals was to lead the various e-learning clusters, to build relationships with other clusters, and to move the cluster towards a sustainable model of development over the 2008 and 2009 school years. Roberts (2010) described the specific tasks of the ePrincipal as:

- › develop and refine policy and procedure for the delivery of online learning
- › share best practice
- › provide professional learning opportunities for teacher
- › develop student support networks and structures
- › set up programmes such as Scholarship Mentoring, and Gifted and Talented programmes
- › identify areas for innovation
- › support research
- › explore opportunities to include the wider community
- › support new schools and clusters as they join the VLN. (p. 148)

In a recent examination of the leadership of e-learning clusters, Stevens (2011) found that the responsibilities of the ePrincipal were open to interpretation by the individual who held the position. Further, Barbour's (2011) evaluation of the sustainability and maturity of New Zealand's e-learning clusters, concluded that "based upon the current responsibilities assumed by the ePrincipals, the Ministry of Education is justified to not provide funding for approximately 15 ePrincipals. The business case simply does not exist" (p. 40). The fact that the ePrincipal model was based on funding provided directly from the government, with no mechanism for the contribution of funds from the individual schools or clusters, combined with a lack of a coherent view of the role of the ePrincipal, contributed to why the funding for this initiative was not continued following the 2009 school year. Even following end of the external funding for the ePrincipal, in a study of educational leadership in two of the VLN e-learning clusters, Stevens (2011) found that the role of the ePrincipal was "complex, [relied] heavily on goodwill and collaboration, and [occurred] in a challenging environment" (vi). Stevens underscored the unsystematic nature of the role by recommending that "eLearning clusters' management committees should also review their leadership roles, with a view to developing greater responsibilities for instructional leadership, particularly by adopting a much more strategic approach to improving student learning" (p. 112). This was similar to Barbour's recommendation that the role of the ePrincipal become more defined.

At present, the VLN represents approximately 20 individual e-learning clusters (Compton, Davis & Mackey, 2009). In 2009, it was reported that these clusters were brokering over 160 online courses and related professional and organisational development (Bolstad & Lin, 2009), representing 1401 student enrolments from 252 schools, in 212 different courses, taught by 154 different distance or e-teachers (Roberts, 2009). In April 2010, the Virtual Learning Network-Community (VLN-C) was officially constituted to formalise and extend the co-operation between the individual e-learning clusters (Wenmoth, 2011). Some rationalisation has begun to occur within the VLN, for

example the former CANTatech and AorakiNet e-learning clusters have merged to form the CantaNet e-learning cluster. Further, new funding initiatives to explore the potential of blended learning have even encouraged the development of super clusters, such as the cooperation of 30 schools from the CantaNet and WestNet clusters to form the Southern Central Divide Information Communications Technology Professional Development (ICTPD) cluster (Parkes, Zaka, & Davis, 2011). In addition to the virtual learning provided by the VLN e-learning cluster, several tertiary institutions have also begun providing secondary courses through the VLN brokerage site (e.g., Matua Raki, NatColl, NorthTec, Otago Polytechnic, Telford Rural Polytechnic, Waikato Institute of Technology, etc.).

Many of the distance education initiatives to date have focused on students attending schools in rural and remote jurisdictions; however, this is not true of all of the distance education initiatives. Roberts (2010) reported that in 2009 the DunedinNet e-learning cluster had begun to offer online courses, as well as Wellington High School. More recently a group of schools in the Auckland area have come together to form the HarbourNet e-learning cluster, which began offering a series of distance education courses during the 2012 school year. In addition to urban-focused e-learning clusters, is the development of urban-based loops. For example, in 2005 school-based leadership in the Nelson region led an initiative to connect all of the Nelson area schools to a fibre-based loop – known simply as the ‘Nelson Loop.’ This loop was able to provide the schools with reliable, high speed Internet access (Zwimpfer, 2010). This was followed by similar initiatives in Wellington, the North Shore in Auckland and in Christchurch (known as the Wellington Loop, the North Shore Education Access Loop, and the Greater Christchurch Schools Network respectively).

Most of these, primarily urban, clusters or loops of schools have been started as a result of, or with the assistance of, an economic development grant from central government, local councils or regional trusts. However, each has adopted strategies to make them sustainable through contributions from member schools or support from regional development monies. In 2007 five regions in New Zealand were allocated funding from the Broadband Initiative Fund to enable them to implement a regional broadband trial. Educators from each region formed an alliance to ensure that the needs of schools became a primary focus of the activity in each region. This small group of the original urban loops formed the SuperLoop Group to provide an informal connection between educators in each of the five regions as a means of exchanging ideas and experiences. The SuperLoop group met together at infrequent intervals as required to formulate a coordinated and strategic approach to various themes or issues, common to all areas, and has developed position papers to help inform Ministry of Education thinking and briefing papers. The SuperLoop has established itself as a representative group of mostly urban schools in 12 regions, and also includes representation from the VLN-C, all of who are pioneering and/or planning the collaborative development and use of the UFBiS networks that are being rolled out by the government in New Zealand before the end of 2016.<sup>1</sup>

Finally, there has have been numerous other e-learning and ICT initiatives established in New Zealand in recent decades. Many of these initiatives began around the same time as the CASatech initiative, prior to the establishment of the VLN (and many of its early e-learning clusters). Some of these have even included aspects of virtual learning, and even those that did not include this method of instructional delivery often provided valuable lessons for future initiatives. For example, the linking of Stratford High School to Taranaki Polytechnic (Stevens, 1994), the North Shore Schools Net and the South Auckland Schools Net (Selby, Ryba & Falloon, 2005), and the Top of the South Island technology project or TOSI tech (Stevens, 1995), just to name a few. Each of these pioneering initiatives, regardless of the presence of virtual learning, provided guidance to the VLN e-learning clusters that would follow.

One of the overarching visions that have guided the development of many of these initiatives – although not always in an obvious way – was the goal to use distance education and virtual learning as a way to transition the schools sector from a “traditional” view of educational delivery to a “networked” view of educational delivery.

---

<sup>1</sup> See <http://www.superloop.org.nz> for more information concerning the SuperLoops.

Pages have been omitted. This is an exerpt.