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A History of International K-12 Online and Blended Instruction

Michael K. Barbour
Sacred Heart University

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Chapter 2

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Michael K. Barbour, *Sacred Heart University, mkbarbour@gmail.com*

Abstract

Many involved with the practice or study of K-12 online and blended learning are familiar with the American context. It surrounds us in the media and published research. However, online and blended learning is occurring in meaningful ways to address specific K-12 student needs all around the globe. There are several areas where the international practice is consistent with what we know about the United States (e.g., similar evolutions, early initiatives were government-funded, many of the labels are similar). At the same time, there are some key differences internationally (e.g., the prevalence of legacy forms of distance education, a lack of online learning below the secondary level, and blended learning being seen as a form of technology integration). While far less is known about K-12 online and blended learning in international contexts, programs in these jurisdictions are just as keen to tell their own success stories and undertake cyclic research to improve the design, delivery and facilitation of their programs.

Introduction

Many of us who have been involved in K-12 online and blended learning, both practitioners and researchers, are familiar with the development of the field within the United States. We have all read the history outlining the growth of the field. The first online private school in the United States began in 1991 (Laurel Springs School, 2011). The first full-time online public schools began around 1994 in California (Darrow, 2010), which was about the same time that Utah's Electronic High School began transitioning from exclusive correspondence offerings to some supplemental online courses (Clark, 2003). As Watson and Murin describe in the

previous chapter, in 1996-97 several key state- and federally-funded initiatives began (e.g., Florida Virtual School and Virtual High School respectively) – and many in the field often peg this as the real beginning of K-12 online and blended learning in the United States. The first estimate of the level of activity was in the 2000-01 school year, when Clark (2001) stated that there were between 40,000 and 50,000 K-12 students enrolled in at least one distance education course. A little more than a decade later, we talk about there being more than two million students from all fifty states involved in K-12 online and blended learning (Watson, Murin, Vashaw, Gemin, & Rapp, 2013). Within the American context, this is the history that we have become familiar with.

Unfortunately, many of us who are involved in the field cannot say we have the same level of familiarity of the history, development, and/or current status of K-12 online and blended learning outside of the United States. Those that do have some level of understanding of the international context have often been through the publications of the International Association of K-12 Online Learning (iNACOL) (see Barbour, Brown, Hasler Waters, Hoey, Hunt, Kennedy, Ounsworth, Powell, & Trimm, 2011; Barbour, Hasler Waters, & Hunt, 2011; Powell, & Patrick, 2006). This is not to suggest that these perceptions are inaccurate, only that they are based on a US-defined understanding.

Given the level of familiarity of the American context, it may be useful to leverage this knowledge in our discussion of the international context by examining how the history, development and current state of K-12 online and blended learning internationally is similar and different to the United States. In the following sections, I will discuss how the evolution, the use of government funding to instigate initiatives, and the descriptive labels are similar in both the international and American contexts. I will also discuss how internationally there is a reliance on legacy delivery models, an absence of free market advocates, a lack of proliferation beyond the secondary environment, and blended learning is seen as an effective information communications technologies (ICT) or e-learning is quite different.

Consistencies Between the International and American Contexts

There are three main areas of consistency between what most readers are familiar with in the United States and what occurs in the international context. First, the evolution of K-12 distance education from correspondence education to various media (e.g., radio, instructional television, telematics, videoconferencing, etc.) to online is quite consistent. Second, many of the early K-12 online learning programs in the United States were created through grants provided by the federal or individual state governments, which is consistent with the experience

of K-12 distance education programs in many international jurisdictions. Third, terms such as supplemental and full-time, as well as district-based and state-wide (could be nation-wide or province-wide, depending on the international jurisdiction) are all consistently used to describe K-12 online and blended programs in both the United States and internationally.

Evolution Of Delivery Models

Clark (2013) provided one of the most detailed descriptions of the evolution of K-12 distance education in the United States. According to Clark, this evolution began with the use of print-based materials – also known as correspondence education – at the University of Nebraska-Lincoln. As Clark noted, this medium was a mainstay in K-12 distance education until the 1990s, with rural students who were otherwise unable to access these courses being the primary audience. Clark also described early initiatives using audio distance education (e.g., the Ohio School of the Air and the Wisconsin School of the Air), instructional television (e.g., Midwest Program on Airborne Television Instruction), and early computer-based (e.g., Plato III). This evolution of mediums is quite consistent in many other jurisdictions outside of the United States.

Correspondence education was the first form of K-12 distance education used in many international jurisdictions. For example, the first correspondence school in Canada was Elementary Correspondence School in British Columbia, which officially opened in 1919 with 86 students (Dunae, 2006). Thirteen of these students were the children of lighthouse keepers, and thus lived too remote to any other school that correspondence was the only education that could be provided to them. Similarly, The Correspondence School in New Zealand, now known as *Te Aho o Te Kura Pounamu,* began around 1922 to provide educational opportunities to those living in rural areas (Rumble, 1989). As within the American experience, correspondence education was the only educational opportunity that many of these students were able to avail themselves of (beyond homeschooling).

As other technologies became available, international jurisdictions also began to adopt these technologies for distance education. Following the introduction of correspondence education in Australia around 1922 (Stevens, 1994), K-12 distance education programs in Australia became extensive users of educational radio (Stacey & Visser, 2005). Moore and Kearsley (1996) indicated that the first School of the Air was established in Australia in 1948 on the Alice Springs Royal Flying Doctor Service base. In the 1980s, several rural jurisdictions in Australia began to experiment with telematics, also known as audiographics (Oliver & Reeves, 1994). Telematics makes use of an audio-conferencing telephone link, an interactive blackboard that is

networked using computers, and facsimile to transmit print materials. The Canadian province of Newfoundland and Labrador were also heavy users of the telematics technology to deliver distance education. This program operated by the provincial government began in 1988-89 with a single course that enrolled 36 students from 13 rural schools (Brown, Sheppard & Stevens, 2000), grew it to eleven courses by1999–2000 that had 898 enrollments from 703 students representing 77 different rural schools.

In the late 1990s and early 2000s, there were several initiatives in New Zealand that began to explore the use of video-conferencing to provide distance education to students attending rural schools (Roberts, 2009; Treadwell, 2010; Wenmoth, 1996). Further, Barbour and Wenmoth (2013) described the evolution of correspondence and video-conferencing technologies to provide distance education in that country in the section entitled "Background and History of Primary and Secondary Distance Learning in New Zealand." Finally, there have been several articles that provide comprehensive discussions of the evolution of Canadian K-12 distance education in various jurisdictions from correspondence education, through to other mediums, concluding with the current online learning model (Haughey & Muirhead, 2004). For example, the development of K-12 distance education in the province of Newfoundland and Labrador (Barbour, 2005), and a more detailed accounting of a similar development in the province of British Columbia (Winkelmans, Anderson, & Barbour, 2010).

Use of Government Grants to Fund Initiatives

In their chapter, Watson and Murin described two early K-12 online learning initiatives that had been created using government grants (i.e., Virtual High School and Florida Virtual School). The Virtual High School was created using a five-year, $7.4 million Stars Initiative federal grant (Pape, Adams, & Ribeiro, 2005), while the Florida Virtual School was created through a Florida Department of Education allocation of $200,000 (Friend & Johnston, 2005). In fact, many of the early K-12 online learning programs in the United States were created through grants provided by the federal or individual state governments.

This is consistent with the experience of K-12 distance education programs in many international jurisdictions. For example, the *Te Aho o Te Kura Pounamu* – The Correspondence School in New Zealand (discussed in the previous section), was originally created and continues to receive significant funding from the national Government of New Zealand (Wenmoth, 2005). Further, the various regional e-learning clusters of the Virtual Learning Network (VLN) in New Zealand also make use of resources from the national government, such as the Ministry of Education's sponsored video-conferencing bridge system (Barbour, 2011a; Roberts,

2010; Wenmoth, 2011).

The Ministry of National Education in Turkey funded the creation of an open high school (Demiray & Adiyaman, 2002; Sakar & Ozturk, 2011). By the end of its first decade, the open high school had grown from serving approximately 45,000 students to over 1.3 million students. More recently, the government has funded a project to develop asynchronous online learning content, as well as equip schools with the necessary infrastructure to leverage that content (Barbour, Brown, et al., 2011). Further, Gedik and Goktas (2011) outlined the role of the Ministry of National Education, along with the Council of Higher Education (an agency of the national government), in the development of K-12 online and blended learning – including several individual programs to develop online content, teacher expertise, and technological infrastructure.

Similarly, one of the more extensive examples of an international government-funded K-12 online learning initiative is the Cyber Home Learning System in South Korea. Based upon a series of "Master Plans," the national government sponsored the creation of a program that provided K-12 students access to the entire primary school and secondary school curriculum, including content-based tutors (Bae, Han, Lee, & Lee, 2008; Song & Kim, 2009). According to the Korea Education and Research Information Service (2011), this government-funded initiative was serving more than four million students. The South Korean experience is actually quite consistent with the role of the national governments of many other Asian and European nations (Barbour, Brown, et al., 2011; Powell, & Patrick, 2006). There are many other examples that could be used (e.g., ScienceNet in Singapore [Hin & Subramanian, 2004], the Virtual Classroom Technology on EDUSAT for Rural Schools initiative in India [Centre for Civil Society, 2011], Ensino a Distância para a Itinerância in Portugal or Rīgas Tālmācibas Vidusskola in Latvia [Bacsich, Pepler, et al., 2012]), suffice to say that the use of external funding initiatives to initiate or expand K-12 online and blended programs in the United States and internationally.

Terms to Describe K-12 Online Learning

In their chapter, Watson and Murin define several terms used to describe the nature and medium of K-12 online and blended learning. These terms included supplemental online courses, full-time online schools, and district-led programs. Many of these same terms, as well as others that are commonly used in the United States, are also appropriate descriptors for K-12 online and blended learning programs internationally.

Supplemental online learning programs are ones where students were enrolled in a brick-and-mortar school, but took one or more courses from an online provider to supplement their face-to-face learning (Barbour, 2013a). On the other hand, full-time online programs are ones where the student was not enrolled in a brick-and-mortar school, but took all of their courses from an online provider. These two terms are quite applicable to the international context, although the majority of K-12 online and blended learning programs internationally are supplemental in nature. According to the *State of the Nation: K-12 Online Learning in Canada* reports, the majority of K-12 distance education programs in Canada are supplemental in nature (Barbour, 2013b). The same is true of programs in New Zealand (Roberts, 2010), South Korea (Cho, 2009; Jang, 2006), and most European nations (Bacsich, Bristow, Camilleri, de Beeck, Pepler, & Phillips, 2012; Bacsich, Pepler, Phillips, Öström, & Reynolds, 2012). This is not to suggest that there are no full-time online and blended learning programs outside of the United States. For example, there are some full-time K-12 distance education programs in Canada, primarily at the elementary level (Barbour, 2013b). There is also a full-time blended learning program, the Northern Beaches Christian School, in Australia (Harris, 2005, 2008).

In addition to the consistency in describing the nature of K-12 online and blended learning, there are also some similarities in the way in which the scope of the K-12 online and blended program is described. Watson, Gemin, Ryan, and Wicks (2009) described comprehensive reach and operational control as two of the dimensions for describing K-12 online learning programs. Variables such as district-level and local board controlled are typical of the vast majority of the K-12 distance education programs that exist in Canada (Barbour & Kennedy, 2014). Similarly, the geographic variable of state or, in the case of Canada, province is another accurate description. The geographic variable national is an accurate descriptor for many of the K-12 online programs in Asia (Barbour, Brown, et al., 2011). In addition to being geographic descriptions, these variables often describe the level of operational control.

One limitation of these American-based descriptors is in international jurisdictions where there are no states or provinces. For example, the vast majority of e-learning clusters in the VLN in New Zealand are regional in their primary focus, but these programs serve students from all over the country (Roberts, 2010). The same is true of many of the European K-12 online and blended learning programs – they are managed at a local or regional level, but often enroll students from anywhere in the nation (Bacsich, Pepler, et al., 2012). For example, IVIO@school and Wereldschool in the Netherlands are managed at the local level, but they serve students throughout the country and in Dutch colonies abroad, respectively. Another limitation of these terms is when the operational control and the geographic reach conflict (e.g., the Cana-

dian provinces of Ontario and British Columbia both have programs that are largely managed by local school districts but enroll students from all over the province) (Barbour, 2013b).

Inconsistencies Between the International and American Contexts

There are four main areas of inconsistency between what most readers are familiar with in the United States and what occurs in the international context. First, in many international jurisdictions there is still a significant use of correspondence education, audio distance education, and video conferencing. Second, internationally the primary driver of K-12 online and blended learning are government forces, and corporations are largely contractors that provide content, learning technologies, and other services to these government-run programs. There are few, if any, proponents of the application of free market principles to public education through K-12 online and blended learning. Third, in most countries K-12 online and blended learning is primarily used at the secondary level. Even the use of K-12 distance education in general is largely focused on the secondary grades. Fourth, as corporations and free market proponents are largely absent, blended learning – and even online learning – is generally regarded as the next evolution of effective technology integration.

Continued Reliance Upon Legacy Delivery Models

While the evolution of K-12 distance education from correspondence education to audio, telematics, and video technologies to online learning was one of the similarities between the American experience and international jurisdictions, the continued reliance of many of these jurisdictions on these pre-cursor K-12 distance education technologies is one of the main differences with the international experience. Simply put, in many jurisdictions, there is still a significant use of correspondence education, audio distance education, and video conferencing.

New Zealand is one of the better examples of this reliance on legacy delivery models. While *Te Aho o Te Kura Pounamu* – The Correspondence School was first established in 1922, according to an article that appeared in the *Dominion Post* on March 19th, 2012, there were 14,000 students that were enrolled in one or more courses through this correspondence education model (included in materials provided to attendees of the 04 April 2012 Board of Trustees Meeting). Over the past two decades, there has been a significant development of regional e-learning clusters that utilized video-conferencing as the primary means of instructional delivery – such as CANTANet (Wenmoth, 1996), *Kaupapa Ara Whakawhiti Mätauranga* (Waiti, 2005), OtagoNet (Lai & Pratt, 2009; Pullar & Brennan, 2008), and FarNet (Barbour & Bennett, 2013; Bennett & Barbour, 2012; Rivers & Rivers, 2004; Stevens & Moffatt, 2003). However, even though there were approximately 20 of these regional clusters operating (Compton, Davis &

Mackey, 2009), by 2009 there were only 1401 student enrolments (Roberts, 2009). The vast majority of K-12 distance education being provided in New Zealand was still using correspondence education, and the distance education that is not delivered via correspondence education is primarily offered through video-conferencing. The only use of online learning is to support the video-conferencing instruction by providing students with access to asynchronous course content.

New Zealand is not the only international jurisdiction where correspondence education is still used extensively. According to the annual *State of the Nation: K-12 Online Learning in Canada,* K-12 distance education programs in Canada still use a more traditional, print-based correspondence education delivery model on a frequent basis compared to the US context (Barbour, 2012). This is particularly true of elementary level offerings, which are almost exclusively full-time, correspondence-based programs. In a more recent report, Barbour (2013b) described how approximately two thirds of the students taking distance education courses in Nova Scotia and Ontario, and one third in Manitoba, were using correspondence education. These figures do not include all of the elementary school students in British Columbia, which is the jurisdiction that has the largest proliferation of K-12 distance education in Canada.

Similar to the New Zealand example, while online learning is present within the Mexican context, there are still programs that provide a significant portion of their K-12 distance education through compact discs that are mailed to the student or school (Secretaría de Educación Básica, 2010). As was mentioned earlier, Australia has a long history of K-12 distance education. While there are at least five identified K-12 online or blended learning programs in the country (Barbour & Kennedy, 2014), there are three times as many School of the Air distance education programs that are still operating in Australia (see http://www.assoa.nt.edu.au/_SNAPSHOT/othersoa.html for a listing of current programs). These are just some of the examples where online learning technology is available to be used within the K-12 education system, but these legacy delivery models of distance education persist. This brief discussion does not include the large number of jurisdictions where access to online learning technology is simply not available (Barbour, Brown, et al., 2011), and legacy delivery models are the only K-12 distance education options.

Absence of Free Market Advocates

One of the main differences between the American and international experiences is what is driving the use of K-12 online and blended learning. Within the United States, there has been a strong push to expand access to K-12 online and blended learning based on the belief that by

providing students with choice it will improve the quality of education – as students will select those opportunities that are high quality, forcing the low quality opportunities to either improve or close due to a lack of interest (Apple, 2001, 2005; Fiske & Ladd, 2000). K-12 online and blended learning programs – many of which are directly or indirectly managed by for profit corporations – can provide students with choice regardless of geographical location, in a medium that may provide a higher quality opportunity for students (Moe & Chubb, 2009; Petersen, 2010; Vander Ark, 2012). Others have argued that the use of technology-based innovations, such as online and blended learning, presents opportunities for students to personalize or customize their education – and thus provide a more meaningful, higher quality educational experience (Christensen, Horn, & Johnson, 2011; Packard, 2013; Vander Ark, 2012). Within this American context, some have argued that these claims may be exaggerated and the motives of the proponents may also be questionable (Ravitch, 2010, 2013). Internationally, these kinds of proponents and this kind of push towards K-12 online and blended learning are largely absent.

The phrase 'largely absent' is purposefully used, as there are some free markets proponents of K-12 online and blended learning outside of the United States. For example, there are proponents of free market principles within K-12 online and blended learning in the Canadian context. In 2012 the Society for Quality Education published *The Sky Has Limits: Online Learning in Canadian K-12 Public Education*, which argued that "school choice [was] rationed or channeled, learning conditions [were] carefully state regulated, and the delivery of education limited by teacher union contracts" – particularly when it came to K-12 online and blended learning (Bennett, 2012, p. 3). Bennett cited British Columbia, which has a regulatory regime where the funding follows the student based on what body delivered the individual course, as the only jurisdiction where true choice existed. Interesting, in the *State of the Nation: K-12 Online Learning in Canada* reports, British Columbia has been described as the most regulated province or territory in Canada (Barbour, 2009, 2010, 2011b, 2012, 2013b; Barbour & Stewart, 2008), and the British Columbia Teachers Federation (i.e., the provincial teachers' union) has been described as having conducted more research into K-12 distance education than any other Canadian organization (Barbour & Adelstein, 2013).

Further, at present there is only one Canadian province that permits charter schools – Alberta, which first enabled charter schools in 1994. In response to the Government's *Inspiring Action on Education* initiative (see https://inspiring.education.alberta.ca/), which promoted personalized, innovative, and technology-based learning, the Parkland Institute released *Delivery Matters: Cyber Charter Schools and K-12 Education in Alberta.* In this report, Clements

and Gibson (2013) argued that the evidence from cyber charter schools – and full-time K-12 online learning in general – from the United States did not support the creation or pursuit of cyber charter schools within the province. This attention to research-based, measured growth – along with the a teachers' union that is supportive of K-12 online learning (McRae, 2013) and lack of direct corporate involvement in charter schooling – may explain why Alberta has not developed any online charter schools over the past decade. Essentially, the proliferation of K-12 distance education has not been due to advocates of free market principles, it has been due to the fact that online and blended learning offers opportunities for K-12 students that are not available in the brick-and-mortar environment (Barbour, 2012, 2013b).

New Zealand is another jurisdiction that has a system of education based on free market principles. Beginning in 1989, the Government of New Zealand introduced an initiative known as "Tomorrow's Schools," which transferred the governance of every public school in the country to an elected board (Fiske & Ladd, 2000). These self-governing schools, which were free from geographic enrollment restrictions and/or boundaries, created a system where each school was in competition with each other for students. However, even in this competitive environment the individual e-learning clusters of the VLN have been able to partner with individual schools where the brick-and-mortar schools provide the equivalent of one teacher, teaching one class, in order to enroll students in courses offered through the VLN (Barbour, 2011c; Roberts, 2010). Essentially, proponents of online and blended learning tout its ability to operate in a co-operation fashion with these competitive brick-and-mortar schools. Further, the use of K-12 distance education in New Zealand is also seen as an agent of change in transitioning school from traditional to networked to connected schools (21st Century Learning Reference Group, 2014). A connected learning environment is one "where the integration of face-to-face learning and virtual learning has become seamless and an onlooker would have difficulty in determining if students were learning in a face-to-face or online context" (Barbour & Wenmoth, 2013, p. 7). "The description of *connected schools* is similar to what many in the United States would consider a blended instructional environment.

While Canada and New Zealand are jurisdictions that have education systems with varying levels of free market principles, proponents of these principles are largely absent in advocating for increased proliferation of K-12 online and blended learning. It is interesting to note that in many other international jurisdictions there is even less involvement of the free market in advocating for the use of K-12 online and blended learning. Barbour and Kennedy (2013) described five additional jurisdictions (i.e., Mexico, Australia, Singapore, South Korea, and Turkey) where the primary driver of K-12 online and blended learning are national government

forces, and corporations are largely contractors that provide content, learning technologies, and other services to these government-run programs.

Lack of Proliferation Beyond Secondary School

One of the trends that Watson and Murin reported in their chapter was the fact that full-time, multi-district online schools continue to grow. The authors estimated that there are approximately 310,000 students enrolled in these programs. These full-time, multi-district online schools serve students from kindergarten through to grade 12, and in many states the enrollment in these programs is skewed towards students in the elementary grades. While not unique in the field of K-12 online learning, this is a trend that is more common in the United States.

Internationally, the majority of K-12 distance education outside of the United States is focused on the secondary level. One of the best examples of this focus is the Lifelong Learning Programme of the European Commission funded VISCED Project, whose mission was focused on "a transnational appraisal of virtual schools and colleges with a systematic review at international and national levels of fully virtual schools and colleges" (Bacsich, Pepler, et al., 2012, p. 18). What is most telling about this European initiative is that the review focused on students aged 14 to 21. While the listing of virtual schools and colleges created by the VISCED Project[1] included online programs that served elementary and middle school students, the vast majority of programs outside of North America were primarily focused on secondary school students.

In keeping with the trend in Europe, the provision of distance education in New Zealand is also primarily focused on the secondary levels. The VLN in New Zealand is comprised of approximately 20 geographic and thematic e-learning clusters (Barbour, 2011), one of which is a nation-wide cluster that focuses upon primary level students (i.e., Years 1 to Year 8). While some of the geographic clusters do offer courses for students in Year 7 and Year 8, the VLN-Primary is the major provider of non-secondary level enrollments. A review of the VLN indicated that only a small percentage of the enrollments in the network came from the VLN-Primary e-learning cluster (Barbour, 2011). In one of the most comprehensive accounting of student enrollments in the VLN, the CISCO Corporation case study reported that there were 1400 children engaged in distance education through one or more of the e-learning clusters (CISCO, 2011). Based on the most recent data available, the VLN-Primary enrolled 312 students enrolled in one of more courses during the 2013 school year (Roberts, 2013). This

1 See the complete listing of K-12 distance education programs worldwide, organized by continent, on the VISCED Project Wiki at http://www.virtualschoolsandcolleges.eu/index.php/Main_Page

2013 VLN-Primary enrollment was a significant growth over the past two years.

The inclusion of younger students in K-12 distance education is not limited to New Zealand. For example, in Canada the majority of K-12 distance education occurred at the secondary level (Barbour, 2013b), and the majority of distance education at the elementary level was delivered using correspondence education – almost exclusively on a full-time basis. Similarly, while the majority of K-12 distance education in Australia is delivered to secondary school students (Pendergast & Kapitzke, 2004), the Schools of the Air in Australia generally provide distance education opportunities to younger students (Stacey & Visser, 2005). Further, in addition to their Open High School, Turkey also has an Open Elementary School (Gedik & Goktas, 2011). Finally, the Cyber Home Learning System in South Korea is a K-12 online learning program that spans the realm of K-12 (Bae, et al., 2008). So there is K-12 distance education occurring at the elementary level outside of the United States, however, it still only encompasses a small percentage of the activity internationally.

Blended Learning is Effective ICT or E-Learning

iNACOL originally defined blended learning as:

> ...any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace; often used synonymously with Hybrid Learning. (iNACOL, 2011, p. 3)

This definition was subsequent from a more generalized understanding of online learning. For example, in their 2006 publication of the *International Perspective of K-12 Online Learning* iNACOL described online learning as including:

> a range of web-based resources, media, tools, interactivity, and curricular or instructional approaches. Internationally, a variety of terms are used to describe online learning--including distance education, virtual schools, virtual learning, e-learning, electronic learning. In general, the common theme is that this type of learning takes place over the Internet. (Powell & Patrick, 2006, p. 3)

This broader description of online learning contains many of the features that would be incorporated into the more recent definition of blended learning (e.g., a range of web-based resources being used in various instructional approaches). In fact, the variety of terms are one of the potential confounding issues.

The New Zealand Ministry of Education defined e-learning as "learning and teaching that is facilitated by or supported through the smart use of information and communication technologies" (Ministry of Education, 2006, p. 2). However, e-learning in New Zealand is not synonymous with online or virtual learning. In fact, Powell and Barbour (2011) wrote how the national government's vision for increased e-learning in the K-12 environment allowed for the development of online learning programs (i.e., the implication is that if one allows for the other to occur, then they cannot be the same). The confounding of online and blended learning with ICT or e-learning is consistent with countries like Australia, China, Singapore, and South Korea (Barbour, Brown, et al., 2011; Barbour, Hasler Waters, & Hunt, 2011).

Further, in his case study on online education in Finland, Kajander (2011) indicated that online and blended learning was a teaching method and content source as any other, and it had no special standing in evaluation, quality assurance, procurement, or otherwise. This perception, of online and blended learning as another arrow in any teacher's pedagogical quiver, is seen in many European nations. It is also likely one of the reasons why online and blended learning practices have often emerged from earlier SchoolNet initiatives (Bacsich, Bristow, et al., 2012; Bacsich, Pepler, et al, 2012).

This is not to suggest that blended learning does not occur internationally, only that it is generally not called blended learning or not seen as being connected with online learning. For example, in the *State of the Nation: K-12 Online Learning in Canada* report, it stated:

> while blended learning is occurring across Canada, practitioners do not always consider it part of the distance education or online learning movement. Within the Canadian context blended learning is largely considered an extension of effective ICT, or effective technology integration—to use more of an American phraseology. Many teachers not directly involved with K-12 distance education may not realize they are practicing blended learning according to the iNACOL definition. (Barbour, 2012, p. 15).

In fact, there are several Canadian provinces where any teacher or student can access the Ministry-operated K-12 online learning programs asynchronous course content to use in their own face-to-face teaching and learning (e.g., Newfoundland and Labrador, New Brunswick, and Ontario).

Summary

The goal of this chapter was to expose the reader to the international context of K-12 online

and blended learning. As many readers will likely be familiar with the American context, I chose to compare and contrast that American experience with the international experience. In doing so, I have described three main similarities and four main differences between the two contexts. The international examples that I have used, as well as the amount of coverage that they have received, is representative of the availability of English-language literature about each of these jurisdictions.

In terms of the areas of consistency, the first was the fact that international K-12 distance education has had a similar evolution to the United States. Both contexts began with a traditional print-based correspondence education model and transitioned through several technological advances in the delivery medium to the present day use of online and blended learning. The second consistency is that many of the early K-12 distance education programs – both legacy programs and current online and blended programs – were created through government grants or other investment. The third area of consistency is that many of the labels that we use to describe K-12 online learning in the United States (e.g., supplemental, full-time, statewide, district-based, multi-district, etc.) are applicable to many international jurisdictions.

In terms of the areas of inconsistency, the first was the prevalence of correspondence education, educational radio, telematics, video conferencing, and other legacy forms of distance education mediums that are still in use at the K-12 level internationally. The second was a lack of proponents of the application of free market principles within K-12 education international in general, and K-12 online and blended learning specifically, driving regulatory reform and growth within the field. The third was the lack of online learning occurring below the secondary school level in most international jurisdictions. Finally, the fourth was a lack of a connection between online learning and blended learning, with blended learning simply being seen as a form of technology integration.

It is important to underscore the fact that while K-12 online and blended learning may not be as prevalent or as expansive internationally than it is in the United States, it is occurring in meaningful ways to address specific student needs. However, it is worth adding that many international jurisdictions do not come to the positive conclusions regarding the research into online learning and student achievement. For example, Canadian researchers have found that students in online environments often perform at similar or lower levels than their classroom-based counterparts (Ballas & Belyk, 2000; Barbour & Mulcahy, 2008, 2009; Barker & Wendel, 2001), and these researchers often comment about the selective nature of the online sample increasing that cohort's results (Ballas & Belyk, 2000; Mulcahy & Barbour, 2010; Mul-

cahy, Dibbon, & Norberg, 2008). Further, the Parkland Institute report detailed the various government reports, investigative journalism, and independent researchers that have found consistently poor results for full-time online schools in the United States (Clements & Gibson, 2013). This alternate perception of the effectiveness of K-12 online and blended learning is one of the leading causes for many of the differences in both how K-12 online and blended learning is perceived and how it has been operationalized in international contexts.

Call for Action

The purpose of this chapter was to expose the reader to the development and activity related to K-12 online and blended learning internationally. Regardless of your role – researcher, practitioner, policymaker, publisher, etc. – this chapter was created to promote the exploration of the field outside of the United States. There are many ways to get involved and there is much to be learned from and by our international counterparts.

For researchers, there are many opportunities to undertake empirical studies with international K-12 online and blended learning programs. Throughout this chapter, you have been exposed to numerous international programs. In much the same way that American-based virtual and cyber schools are looking for research partners, these international programs are equally interested. However, they are in the unfortunate situation that the vast majority of active K-12 online and blended learning researchers are based on the United States. Simply put, many of these programs don't have local researchers to work with. As most of these programs are unable or simply don't attend academic or professional conferences in the United States, the onus is on you to reach out to them. Most will be appreciative of the opportunity to work with you – and you will find that most of the countries referenced in this chapter have similar research ethics policies as the United States.

For the practitioner reader the opportunities presented by international K-12 online and blended programs are substantial. As has been explored in this chapter, there are many ways in which the design, delivery, and support of K-12 online and blended learning is consistent between the United States and various international jurisdictions. This means that the lessons learned in these jurisdictions have relevance within the American context. Resources like the *Research Clearinghouse for K-12 Blended and Online Research* [2] provide practitioners with access to research that has been published in the field, and organizations like the Canadian E-Learn-

2 *The Research Clearinghouse for K-12 Blended and Online Research* is an initiative of the Michigan Virtual Learning Research Institute, a division of MVU, and iNACOL, and can be accessed at http://k12onlineresearch.org

ing Network (CANeLearn) have partnered with the clearinghouse to ensure that this international research is represented. Further, one of the most exciting aspects of the implementation of online and blended learning is the potential for breaking down geographic barriers. In many instances we often view this as a way to provide educational opportunities to students regardless of where they live in the State. However, it also has the potential to provide access for our students to have diverse cultural experiences with students engaged in online and blended learning in international jurisdictions. Resources like the VISCED listing of international K-12 online and blended programs[3] provide practitioner with potential contacts for online, international, cultural exchanges for their students – students who may often be facing similar challenges of learning in a different environment.

Further, in recent years there have been increased efforts by policymakers to look for ways to both increase and regulate the use of K-12 online and blended learning. Interesting, many governments of international nations have played an active role in various aspects – depending on the jurisdiction – of the development and growth of K-12 online and blended learning. As educational reformers look to other jurisdictions for policies that have proven to be successful, it should be incumbent on these policymakers to also examine the nature of government involvement, support and regulation of K-12 online and blended learning. This is particularly true of jurisdictions where online and blended learning are another arrow in the teacher's pedagogical quiver or where connected schools are beginning to become the norm, rather than the exception.

Finally, as was noted earlier, one of the limitations of our knowledge about international K-12 online and blended learning programs is the availability of English-language literature. Much of what is known and has been researched on many of these international programs is written in their native language. For example, there has been a great deal written about South Korea's Cyber Home Learning System in Korean-language publications (see Lim & Kim, 2007 as one of many examples). There are several examples of foreign language journals translating and publishing English-language research for their readership. For example, the Mexican-based *Revista Mexicana de Bachillerato a Distancia* has translated several of my own articles from English into Spanish (see Barbour and Plough [2014] or Hawkins, Barbour, and Graham [2012] as two examples). Lessons from these international programs could be quite useful for researchers, practitioners, and policymakers. Regardless of the professional context that originally brought you to this chapter, its content should simply be the first stop on your journey

3 See the VISCED Project Wiki for a complete listing of K-12 distance education programs worldwide, organized by continent, at http://www.virtualschoolsandcolleges.eu/index.php/Main_Page

around the "world" of K-12 online and blended learning – not your final destination!

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