History and heritage in distance education

Bill Anderson, University of Otago
Mary Simpson, University of Otago

Abstract

Distance education's history is a tremendous resource for all involved in distance education. Some aspects of that history provide enduring touchstones for present distance educators, creating a heritage that should not be overlooked as distance education continues to develop and expand. In this article we draw on the concept of generational frameworks to focus on particular developments that have shaped and continue to shape distance education. From those developments we identify and discuss seven elements that serve as the core features of the heritage that underpins our distance education practice. We challenge current distance educators to identify their own heritage elements and build on them as they contribute to the future of the discipline.

Keywords: distance education; history of distance education

Introduction

We wrote this article because we were asked to tie together ideas that we felt were important theoretical, scholarly, or research-based signposts in our own practice. That is our goal here. Don't look for significant critique in this article—that has gone before. It was critique over time that drove us toward these signposts. However, we have read enough revisionist histories to have learnt that our own summation will be challenged by our readers' critique, and challenges will contribute to debate about what has been valuable. We welcome that debate as part of an ongoing conversation about distance education. There will be gaps in our picture. Others will have different opinions on history and heritage and it is inevitable that we have missed what some will see as crucial facets of distance education. We hope to spark awareness of our past, respect for pioneers and pioneering thought, and debate about the future. Let's begin.

People have always learned through open and flexible means. We think of preachers, early itinerant storytellers, wandering minstrels, and groups of performers as early teachers. Great thinkers also gathered around them people who were keen to listen, to debate, and to share ideas. However, it was the invention of the printing press that really allowed the beginnings of distance delivery. Then, centuries later, the postal service created an opportunity for a more systematic planned approach to open, flexible, and distance education to develop. From this, access to learning opportunities for a wider range of people began to open up. This paper takes its beginnings from that point, as we consider our open, flexible, and distance education history and ask, "What, from that, is the heritage with which we move forward?" Our concern is to ensure

we recognise and value heritage at a time when the possibilities presented by digital technologies mean it could be easily forgotten.

Probably every culture reminds us of the perils of looking only toward the new without considering the past. Satanyana's message from the early 1900s—that those who cannot remember the past are condemned to repeat it—continues to be relevant. Over two millennia earlier, Confucius wrote that we should study the past though we are to define the future. Here in New Zealand, the respect we see for Māori elders and their guardianship of historical knowledge is a further remainder of the need to acknowledge past events and learn from them. However, not all history provides useful lessons. We need to be able to identify those aspects of history that add value to the present and should move with us to the future.

Defining what constitutes history is not entirely straightforward. In a simple sense it is the study of past events. However, we commonly describe some things as history when we mean that although they are past events they are no longer relevant to the present; when we talk of other events as 'going down in history' we mean they must be recorded; and, finally, we talk about events that 'make history'. For us, history reflects all of these things. We need to know our past, as much as we can, in its entirety. We need to take from that whole the knowledge and events that have added value and moved the field forward; we need to consider events and ideas that inform the present and will continue to have value in the future. Those value-adding events, developments, objects, and qualities become our heritage—a heritage built through the efforts of people.

Looking back

We are not alone in wanting to represent distance education through an historical account. Brief histories of distance education can be found in several places: handbooks (Evans, Haughey, & Murphy, 2008; Moore, 2007), journal articles (Sumner, 2000), content analyses of journals, giving a sense of the trends in topics of interest to distance educators (Berge & Mrozowski, 2001; Lee, Driscoll, & Nelson, 2007), and a small number of dissertations examine aspects of distance education from an historical perspective. In a unique way, Burge (2008) personalises the activities of distance education pioneers and reflects on what their experiences mean for distance educators of today. All of those sources of history deserve some attention.

The concept of distance education evolving through generations provides a helpful structure when considering history and heritage. In 1989 Nipper, the first to use a generational framework, suggested three generations of distance education linked to production, distribution, and computer conferencing. Subsequently, these three generations were often labelled correspondence, broadcast, and computer mediated.

The first two generations are fairly universally accepted. However, different writers, building on Nipper's work, have constructed subsequent generations somewhat differently. Moore and Kearsley (2005) describe the third generation as developing a systems approach, while Taylor (2001) says it was based on telelearning (audio/video conferencing). Taylor goes on to suggest a fourth generation that is linked to flexible learning based on online teaching, and a fifth generation that exploits additional aspects of "intelligent" digital technologies.

A generational framework highlights key developments. The diversity we note suggests different strands of development in different contexts. In the next section we use the concept of generations to probe distance education's historical strands. We will briefly highlight key developments and challenges faced, before we identify those that constitute the heritage that contributes to our practice.

Generations

First generation

The first generation of distance education was defined by print technology. Although there have been examples of first-generation distance learning for hundreds of years, the combination of printing press technology and postal services made what is commonly known as correspondence education widely available. Driven by a strong sense of social justice, correspondence education was provided by a variety of organisations, only some of which focused on qualifications.

First-generation distance educators felt it was important to offer educational opportunities to those without easy access to education institutions. These groups often included women and working class people, since neither group was well served by formal education institutions. The foundations of group-based adult education can also be seen during the first generation of distance education. In the United States of America, land grant universities were formed—a central part of their mission was to reach out to people from all backgrounds through correspondence courses (Moore & Kearsley, 2005). Similar vision, at a later time, can be seen in the development of our Correspondence School (Te Kura), WEA (the Workers Education Association, now the Book Discussion Scheme), The Open Polytechnic of New Zealand (formerly known as the Technical Correspondence School and then the Technical Correspondence Institute), and Massey University (which was known as Palmerston North University College when correspondence education was introduced).

This first generation of distance education was characterised by a didactic teaching style—which Holmberg (1960) called "guided didactic conversation". Alongside this interest in teaching style Peters, working in Germany, directed attention to the organisation and delivery of distance education. He examined the delivery of distance education in over 30 countries and developed a theory of industrialised education (Black, 2007). Thus a focus on guiding students through material that was systematically produced and distributed was evident in this generation of distance education.

The beginning of research that focused on distance education was also seen during the first generation of distance education. Such research was usually undertaken by distance teachers who wanted to reflect on their own practice (Moore & Kearsley, 2005). There were no journals devoted to distance education, and there were few formal opportunities to share research findings or promote engagement with the challenges and questions raised by distance education.

Second generation

The ability to broadcast using technologies such as radio and television characterised the second generation of distance education. These broadcast technologies enhanced and added to distance education considerably (Evans & Nation, 2007). However, interaction between the teacher and the learner, or between learners, remained minimal. Providing access was seen as important and continued to be a strong driver of distance education at this time. The use of broadcast technologies is well illustrated in the development of the UK Open University (UKOU) and its use of television. The Australian School of the Air, founded in 1950, continues to use radio broadcasts. The New Zealand Correspondence School used broadcast media with its Broadcasts to Schools.

Second-generation distance education saw an increase in scholarly and research work. Wedermeyer, working at the University of Madison-Wisconsin, analysed the teaching process, considered it to be composed of areas that required specialist skills, and introduced the concept of team development of teaching materials (Wedermeyer & Najem, 1969). His team approach to the production and delivery of teaching material was adopted by the UKOU, where the emphasis

was on high-quality courses designed for large enrolments. Wedermeyer also pioneered courses that specifically focused on the study of distance education. Research centres, journals, conferences, and distance education-focused associations developed during this time. Early associations developed into the International Council for Distance Education (ICDE). The Commonwealth of Learning (COL) was founded in 1987. National distance organisations were also established. Academic journals emerged from the associations and distance education institutions, with most still available now.

The concept of economies of scale was a driver in second-generation distance education—large course enrolments were seen to equate to good resource use. This approach supported the development of what John Daniel (1996) later identified as "mega (distance) universities"—distance universities with over 100,000 students. These universities remain major providers of distance education with a continuing focus on access, cost, and quality. They reach millions of students.

First- and second-generation distance teaching and learning tended to be delivered through structured material with communication dominated by the teacher. Learning was generally regarded as an individual rather than a social process. Learning models drew on cognitive or behavioural theories of learning. It was intended that information given in the material was there to be acquired by the student. That approach began to change with a growing recognition of the possibilities presented by interaction. Moore's theory of transactional distance (1993) recognised the importance of both structure and dialogue and, along with his influential editorial on interaction (Moore, 1989), contributed to the move beyond first and second generations.

Subsequent generations

As we noted earlier, a number of people have different interpretations of the subsequent generations of distance education, mixing the strengths of the first and second generations with the possibilities of conferencing. For the third generation, Nipper focused on asynchronous computer conferencing to enrich delivery. Taylor focused on the synchronous possibilities of teleconferencing (audio and video) which run counter to the flexibility of asynchronous distance education, and considered computer conferencing to be part of a fourth generation. Moore's third generation focused on the systemic nature of distance education, drawing on the effects of Wedermeyer's work and the practices of the UKOU. His fourth generation was based on the potential of teleconferencing. Despite the different terminology and areas of focus, the most common thread beyond the first two generations was the recognition of interaction. Interaction has subsequently remained a central focus for distance education.

Video and audio teleconferencing were used quite extensively, particularly in the United States of America. In New Zealand the use of teleconferencing was seen in the development of networks such as the University of Otago Audio Network, OtagoNet (for Otago schools), Casatech (later CANTAtech, a group of mostly Canterbury schools) and KAWM (Kaupapa Ara Whakawhiti Matauranga) (Roberts, 2009). Both audio and video conferencing extended interaction and highlighted the need to develop facilitation skills (Burge & Howard, 1990). Similarly, online computer-mediated distance education continues and extends the focus on interaction. These technologies support a move in distance education from the earlier focus on organisation and didactic teaching to a focus on the social construction of knowledge.

When Taylor (2001) first spoke of the generation of computer-mediated distance education 10 years ago, he suggested that many higher education institutions were just beginning to implement its possibilities. Such distance education can recognise and support diversity. It is possible to develop smaller courses for smaller groups of students and to specialise in niche areas. These developments in distance education are characterised by the development of communities of

inquiry, a focus on knowledge construction, and interaction between students and amongst teachers and students. Work by Garrison, Anderson, and Archer (1999) led the way, identifying the concepts of cognitive, social, and teaching presence as being likely to support the creation of communities of inquiry. A set of guiding principles to facilitate higher levels of teaching developed by Kanuka (2002) provides another example of work that investigates teaching in online distance education.

Computer-mediated education has also caught the attention of face-to-face teaching institutions. It presents such institutions with possibilities for engaging with current students who seek greater flexibility in the delivery of courses, and with new cohorts of distance students. There is little doubt that we are seeing a convergence of face-to-face and distance teaching. The changes are fast-moving and are breaking down the boundaries between distance and face-to-face institutions, and distance and face-to-face teaching within institutions.

However, technology use alone does not lead to change. Many early uses of computer conferencing, and audio and video conferencing, while providing opportunities for greater student participation and control through interaction, remained largely controlled by teachers from teaching centres. When computer and teleconferencing were (and still are) used in this way, industrialised first-generation approaches continue. Still, the possibilities of online computer-mediated education are exciting, and all institutions will have to consider its effect and the challenges it presents. Innovation grounded in the history and heritage of distance education could lead and radically change teaching and learning.

More recent developments still are in the throes of creating history in distance education. The turn to openness in resources, courses, and practices reflects the early concerns of distance educators. Data mining and the relatively new field of learning analytics create opportunities to individualise learning in ways not previously seen. Use of mobile technologies enables learning in places and spaces not previously conceived of as learning venues. These developments have the potential to be transformational and create new learning experiences, and to personalise the activity of learning. It seems fair to say we are at a crossroads. Some institutions confidently claim to be forging ahead and are energetically embracing these new possibilities while others are unsure. Transformation of teaching and learning requires careful exploitation of technologies, a deep understanding of teaching and learning, and expertise in the content area being delivered. Time will tell if we really are developing new approaches to teaching and learning or are in fact returning to models associated with past generations.

In order to realise the potential of recent developments, Garrison and Archer (2007) are clear that new research and theory development is needed to "…explain, interpret, and shape the new forms of educational practice that have been made possible by highly interactive communications technologies" (p.77). Without that research, both teachers and students might not be supported to realise the potential of computer-mediated distance education. Yet we still need to draw from scholarship that provides foundations for distance education as a field of inquiry, recognises the field's central underpinnings of access and equity, and highlights the importance of recognising individuals and working to individualise the distance learning experience. Garrison (1989) and Harasim (1989) produced work that informed these developments. Other distance educators such as Tait (1988), Rumble (2000), and Simpson (2000) drew attention to the need for student support. Evans (1994) and Gibson (1998) both undertook work that focused attention on the characteristics and needs of distance students. Kramarae (2007) and Kirkup and Von Prümmer (1990) highlighted issues of gender disparity. More recently, the intensified interest in pedagogy has been reflected in the work of Anderson and Dron (2011) who extended the generations framework by introducing the concept of generations of pedagogy. Work such as this remains central to the field.

Evans and Nation (2007) say our current challenge is to resist what they see as a trend to "old industrial approaches to distance education re-jigged into online forms" (p. 653). They urge us to address the challenges of constructivism and move our still conventional institutions to seriously embrace online teaching and learning. To do this we contend that we need more than individual innovators, important as they are. It is rare to find institutional and programme-focused planning for new forms of open, flexible, and distance education that is coupled with real commitment to action, to enriched, excellent teaching and an interactive, personalised high quality experience for students.

Different types of institutions will face different challenges. Small institutions may prove to be more agile than the mega-universities or the conventional conservative universities. Both distance and face-to-face institutions will have to address recent developments, given the ubiquity of computer-mediated teaching environments. Questions of size (boutique or mega-institutions), globalisation, and credentialling will be part of the discussion. The future will look different for different institutions, teachers, and students. Those institutions which are capable of flexibility will move us forward, simultaneously drawing on and creating the heritage of distance education. We cannot be sure what that future will look like, but flexibility and an understanding of the successes and challenges of the past must help us plot a path to that future.

Heritage … and looking ahead

We've provided a sense of the development and history of distance education and a glimpse of the possibilities and challenges ahead. What are the signposts that we see as the heritage on which we've drawn, and what will we attend to in future?

Social justice and equity

Distance education is grounded in commitment to social justice and equity.

While most (but certainly not all) in our country may have access to education, that access was not gained without a significant contribution from our distance education institutions. We should never take access for granted. It is a right and a means to personal, community, and national development. There is a fine balance between cost of education and access to education. It is a balance which, if not carefully considered, can easily lead to inequity.

Globally, mega-universities have been an outcome of distance education that has supported the principle of education for all. Those universities continue to be very important. Many have enrolments in the hundreds of thousands. They continue the distance education tradition of providing access and using technology on a large scale.

Technology use and mediation

Distance education is always mediated by the use of technology.

Technology has enabled flexibility and interaction in delivery. We see that quite powerfully in the recent developments. However, technology by itself can blind us to the needs of students and the need for good pedagogy. Technology becomes most potent when we can no longer see it. Our challenge would seem to be twofold: selecting the best technologies for our pedagogical purposes from all the options, and making those technologies invisible.

Interaction

Interaction amongst people is at the heart of distance education.

We have learnt a lot about interaction, and we have seen how carefully planned interaction can enrich teaching and learning. We need to undertake much more research to identify the nature, extent, and balance of both learner- and teacher-initiated interaction that best creates excellence in distance education's particular contexts.

Teamwork

High quality distance education calls for effective teamwork.

The challenges of distance education have ensured that good teachers have always given thought to creating richness and variety in materials and resources to enhance learning. Course development teams have alerted us to the range of skills needed to develop quality materials and resources. We have learned to accept that specialist expertise is often needed, and have found design and production teams to have immense value. In New Zealand we are just beginning to recognise the worth of instructional designers but the relationship between teachers and instructional designers needs strengthening, and both need to find ways to work closely while keeping quality teaching and learning as their prime focus.

A systemic process

Distance education is a systemic enterprise.

The care and attention that systems thinking has brought to distance education design, teaching, policy and research work has built the foundations of the field. We must continue to identify how all aspects of the distance education enterprise contribute to and build on one another.

Scholarship

Research and scholarship in distance education builds the field for the future.

Distance education has a history and a body of scholarly work that provides a foundation for the r/evolution that new forms of distance education are bringing about. There is now a range of journals linked to distance, open, and flexible education. It is surely a strength that teachers and researchers from all disciplines are using distance, open, and flexible delivery methods and are writing about their effect on practice and the experience of students.

Scholarship in distance education is almost exclusively linked to post-compulsory education, but distance education (with students from pre-school to adult) has played a significant role in the compulsory schooling sector. This role and contribution to compulsory schooling needs closer attention.

Scholarship provides the foundation for sensible and defensible decisions and the foundation for young scholars to build on. It is essential that we support a new generation of scholars to add to the work we already draw on.

A focus on people

Distance education must focus on people.

Teaching and learning is a shared enterprise in which the roles of both teachers and students need to be understood and valued. Ultimately, it is the combination of the human, the technological and the organisational that works. The mix, and attention to balance of those three elements, must remain at the forefront of our vision.

Conclusion

Some people are reluctant to call themselves distance educators these days. Perhaps the term carries a connotation of being dated or out-of-touch. Yet, knowingly or unknowingly, people draw on distance education's history and heritage. In this exploration of ideas from distance education's history we have highlighted what we discern as heritage, and hope that we will provoke readers to do the same.

We can see 'distance–type approaches' gaining more prominence as the boundaries between distance and on-campus continue to blur. It is now quite usual for teachers to incorporate online activities into their teaching as they become excited by the possibilities. Enthusiasm and innovation is certainly needed and is to be encouraged. However, enthusiasm without understanding may lead to nothing being done particularly well. That would devalue the work of those who have striven to create a heritage for others. Our, and your, challenge is to continue to build on that heritage, to critically evaluate technologies (in their broadest sense) and pedagogies, and carefully consider how they can contribute to quality distance teaching and learning.

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Biographical notes

Mary Simpson
mary.simpson@otago.ac.nz

Mary Simpson is the Associate Dean (Teacher Education), College of Education, University of Otago.

Bill Anderson
bill.anderson@otago.ac.nz

Bill Anderson is the Director, Distance Learning, University of Otago.

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