

THE HISTORY OF DISTANCE EDUCATION IN AUSTRALIA

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Australia's large distances and widely distributed population has meant that distance education has been an important part of its history. From the earliest provision of schooling by mail through a series of correspondence schools, both state and federal governments have provided a sound infrastructure to support distance education. Innovative uses of technologies to provide communication and interaction and ease the isolation of distance have also been a feature of Australia's distance education history. The impact of this history is particularly relevant as the Internet and information and communication technologies are changing this field and making distance educators of all institutions and sectors.

INTRODUCTION

Australia's widespread development and use of distance education has been in the main caused by its geography and low population. Though covering an area as great as the United States of America, Australia's population has only just reached 20 million at the beginning of the twenty-first century, and most people live on the fertile coastal fringes primarily around major cities. As much of the inland area of the country has insufficient water to sustain many inhabitants, centers of population can be scattered across large distances, particularly in the outback, the most remote inland areas of Australia. With such a distributed population, the education of school-aged children initially spurred the growth of distance education and,

COUNTRY PROFILE: Australia

Australia is the sixth largest country on Earth, but has only 20 million inhabitants. Its vast outback regions made the government aware almost a century ago of the need for distance education and the success of correspondence education in these rural areas has greatly influenced the development of distance education already early in the twentieth century.

Australia is an affluent country with large dual-mode universities and a high standard of living. Literacy rates are 100% and the life expectancy of the Australians is currently 80 years. Many students use a combination of distance and face-to-face education to make sure that their needs are adequately served.

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The Quarterly Review of Distance Education, Volume 6(3), 2005, pp. 253–259
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ISSN 1528-3518
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as teachers and other professionals in these scattered areas needed further education, government education agencies and postsecondary educational institutions began to provide this through distance education. Any new technology that could ease the isolation of distant students has also been put to use and the history of innovative uses of technology has been intertwined through Australia's history of distance education, impacting on today's developments in education in all educational sectors.

This article will examine the response to these conditions within an Australian educational system that has its state governments providing school and vocational education and both federal and state governments sharing governance of the university system. The impact of government policies as both responsive and directing of distance education in Australia will be discussed.

BEGINNINGS OF DISTANCE EDUCATION

After Australia became a federation of hitherto separate states in 1901, this former British colony with a short history of only 200 years provided schools in major towns and small bush schools in more settled rural areas, often with one teacher teaching all ages. Many of these teachers were minimally trained and were reliant on correspondence education for further professional development. Correspondence education, depending on a reliable postal service, was the first form of Australian distance education, beginning in the state of Victoria at secondary level in 1909 and at primary level in 1914 and soon followed by the other states.

Reporting on the correspondence education system that educated 1.5% of all elementary school aged children in 1931 (5-12 years of age or in some states until 14 years), Cunningham (1931) wrote that "Australia can claim to be the first country to have shown in a systematic way, and on a large scale, that it is possible to provide by correspondence a complete elementary education for children who have

never been to school" (p. 9). Teachers, usually based in cities, taught *invisible classes* of children who were sent printed lessons and who sent work back to their teachers for assessment and feedback. Correspondence classes were organized like normal schools with some specialization of function according to the expertise of the teachers.

Correspondence courses for teachers to complete their qualifications were also possible within Australia by 1910. The need for education for teachers indeed drove the establishment of external studies (as distance education was known) in institutions of higher education. Until 1982, external studies was provided by different educational authorities "as a matter of necessity or advantage" (Johnson, 1996, p. 90). Johnson describes the establishment of teachers colleges, later expanded to colleges of advanced education, (CAEs) as state-run institutions established for political advantage to politicians. Conservative politicians sponsored establishment of colleges in country centers while Labour politicians sponsored establishment of institutions in cities, the site of their political support. During the 1970s, when an economic downturn and high unemployment meant fewer students enrolled in higher education, the country-based colleges, also answering a need for teachers in service requiring an additional year of qualification, expanded their external studies to answer a need for part-time distance education of teachers. This demand was bolstered when tuition fees for higher education were abolished by the Federal Labour government of 1972-1975 and demand for enrollment grew, particularly in external studies from women either because of their geographic location or their family commitments, which made studying at a distance more feasible.

By 1975, there were over 17,000 external students in higher education, 6% of total national enrollment, and by 1982 the distance education sector was the fastest growing sector in higher education, with total enrollment of 334,000. Forty-three higher education institutions offered external studies, mostly in

teacher education and business studies (Johnson, 1996). At university level, each state had ensured that a university in its establishment took responsibility for provision of distance education, including Deakin University in Victoria, the University of Queensland in that state, the University of New England and Macquarie University in New South Wales, and Murdoch University in Western Australia (Holmes, 1977). In the Technical and Further Education (TAFE) sector, each state offered colleges of external studies, though in Victoria a TAFE off-campus coordinating authority produced materials, but the tutorial process took place through its colleges. In 1976, there was a total enrolment of nearly 60,000 in these TAFE organizations (Holmes, 1977).

GOVERNMENT POLICY AND HIGHER EDUCATION AT A DISTANCE

The needs-based growth of the distance education sector in Australia resulted in a range of duplication of courses and resources, and from 1973 the Australian Commonwealth government expressed interest in nationally coordinating distance education in higher education. A committee was appointed to advise the Universities Commission on open education at university level, later extending to include advanced education, and in its 1974 report it drew attention to the need for lifelong learning in the workforce and to the need for equity of access to higher education. There was a rejection of the establishment of a single-mode distance university such as the Open University in the United Kingdom, and dual mode institutions, teaching both on- and off-campus students, became the norm in Australia. A national coordination body for organizing and advising distant education offerings in Australia was also recommended (Deakin University, 1988). This recommended body was not established at this time, and after further duplication and fragmentation in external offerings, this was again investigated in 1982 (Johnson,

1983), with a similar recommendation for a national overview of policy on distance education to oversee credit transfers, library access, sharing of courses, study centers, and advice on external studies.

A federal election in 1987 brought a new national education minister, John Dawkins, who proposed a number of reforms in higher education and responded to the 1986 Hudson report that recommended a way of rationalizing course duplication in distance education through establishing a limited number of distance education providers to six (later expanded to eight) Distance Education Centres (DECs). Inglis (1999) writes of a period of "winners and losers" in distance education (p. 21) when non-DEC providers had to justify their involvement in the field. The DECs were, however, funded to collaborate as specialists with all non-DEC providers of distance education, and this helped to raise the quality of distance education materials and the provision of electronic technologies to students (Johnson, 1996, p. 99). However, after 4 years when DECs collaborated with non-DECs to ensure an ongoing distribution of funded distance education was available to all institutions, another review and a new education minister resulted in the disbanding of the DEC system in 1993, and all institutions were free to offer courses in whatever mode they chose.

This period of federal government investigation of the potential of distance education and of government proposals for national coordination of distance education provision had a long-term impact on distance education in Australia. Some institutions abandoned provision of distance education but, in the main, the widespread collaboration between institutions acted to reduce the replication of courses that had been occurring, and began to raise the quality of distance education provision. The federal government has not again attempted to limit institutions providing distance education and, with the advent of the Internet and online education, has instead funded innovative projects to develop effective technological support for distance education with the

premise that innovations be shared collaboratively among universities. Major reports on the effectiveness of technologies have been commissioned (National Board of Employment, Education and Training, 1992, 1994; Taylor, Lopez, & Quadrelli, 1996; Yetton, 1997), and these have influenced universities as they review the potential of multimedia, electronic learning, and the Internet in both on-campus and off-campus provision. As well, systems of quality audits of universities have been instituted at the federal level and these also act as an audit on the quality of distance education, particularly online offerings (Inglis, 2005; Oliver, 2003).

National collaboration between distance education providers has also been encouraged through the establishment of national associations of universities involved with distance education since 1993. As all universities embrace online education and cope with the issues of open and distance education, their interest in related policy and practice is shared. The eight government distance education centres formed into the Australian National Council of Open and Distance Education, and when they offered fee-paying membership to all Australian universities, 31 of the 38 accepted (Le Grew & Calvert, 1998). The National Council on Open and Distance Education later developed into NCODE: Flexible Learning Australasia in 2000 and, in 2002, into the Australasian Council on Open, Distance and E-Learning (ACODE), which supports the flexible, open, distance, and e-learning activities of most Australian and New Zealand universities. ACODE oversees policy and practice in flexible, open, and distance education and supports the ongoing collaboration of institutions in the field, especially through sharing of outcomes of government-funded projects to develop courseware and communications systems for distance education. Government policy direction and the future of distance education in higher education is not the domain of this article, but Nunan (2005) predicts that market conditions will provide a strategic benefit to current major providers of distance education

if they maintain their skilled staff and infrastructure.

GOVERNMENT POLICY AND THE VOCATIONAL EDUCATION AND TRAINING SECTOR

As previously described, the vocational education and training sector (VET) was mainly served through Technical and Further Education (TAFE) colleges administered by state governments with distance education provided through colleges of external studies. This changed radically at the end of the 1980s, when the federal government, in response to an urgent need for a more skilled workforce, introduced changes to vocational education to improve the relevance of the TAFE curriculum to the needs of industry and to challenge the TAFE monopoly of training for VET. Competency-based training was introduced, with a range of competencies endorsed by industry that expressed training outcomes in required competencies and meant that, if learners could demonstrate competencies, they could receive recognition for prior learning and could reduce their training. More training could be delivered in the context of the workplace and distance education methods gained importance in this new form of flexible delivery. Registered training organizations were able to compete with the TAFE Colleges to provide flexibly-delivered training. The federal, state, and territory governments agreed to invest in new technologies to support flexible delivery, and a number of national governing bodies have been set up to administer and support vocational training in Australia (Robinson, Calvert, & Peoples, 1997).

INNOVATIVE TECHNOLOGY USE

The impact of technology on distance education in Australia was first seen in the correspondence school network. An innovative use of an available technology, in this case the use of two-way radio, was put to use to provide

distance students with a means of interaction with their teachers and other students, and opened up the distance for many children in the outback. Two-way wireless radio equipment had been introduced to isolated rural homesteads to provide medical help through the Royal Flying Doctor Service, a medical service that saved many lives throughout remote areas by providing immediate help over the radio while medical personnel were flown in or ill patients were picked up and flown out to larger centers for aid. Adelaide Miethke, an Inspector of Schools in South Australia, convinced authorities to make the two-way wireless equipment the basis for a School of the Air (Ashton, 1971) and from 1951 teachers regularly conducted classes with children in rural Australia, supplementing their print materials with interactive sessions.

The school system of distance education, emulating classroom education, has continued to be an early user of technologies, from use of audio and later video tape recorders, to establishment between schools of audiographic networks that combined loudspeaker telephones for an audio link and computers linked by modems using software that enabled a shared screen (called *telematics* in Australia) (Stacey, 1998). The telematic network enabled a collaborative sharing of a teacher by students in schools spread out over several country areas and provided specialist teaching in subjects—such as languages or physics—otherwise unavailable to students, whatever need had arisen. This provision and collaboration between schools has continued through other technologies including the use of desktop videoconferencing via the Internet and interactive television via satellite (Stacey, Evans, & Tregenza, 1999) which was planned and provided from a centralized group of teachers based in city centers. More recently, schools of distance education throughout the states are teaching online, sending assignments and corrected work to students and often requiring them to use their own laptop computers. An example of this is Queensland's Virtual Schooling Service which, since 2000, has provided distance

education via a range of learning technologies, including i-school, which uses both audiographic conferencing and an Internet-based learning management system for access to curriculum materials and an online environment (Batt, 2003). As with higher education, traditional schools are also taking up this mode of online teaching and learning, and such information and communication technologies are being integrated into all school education provision.

Other educational sectors followed the lead of the schools in using technologies as they became available and were piloted to prove their effectiveness in enabling a better quality of distance education provision (Carmichael, 1995; Tennant, 1999). Both vocational education and higher education institutions established rural outposts to link teachers and students (Northcott, 1986; Macpherson & Dekkers, 1997) and, with the Internet, the possibility of linking individual students using computers in their homes has changed this provision. Australia established an early academic network via the Internet, AARNET, and institutions acted as internet service providers to students who used modems and often poor rural telephone lines to link to their online classes (Castro, 1990; Stacey, 1994).

The response of institutions and sectors experimenting with new technologies and sharing knowledge of their possibilities is reflected in the distance education literature. Peter Smith (2004) analyzing the themes of articles in the Australian journal *Distance Education*, the first academic journal established to publish research in this field, found that:

The feeling that the sheer number of papers focussing on computer-based instructional design & delivery may have backgrounded other research publications in Distance Education is borne out strongly since 2000. From 2000 to 2003 there were 62 refereed papers published in Distance Education, and 42 (67%) of these were computer-based Instructional Design & Delivery. Of the remainder, non-computer-based Instructional Design & Delivery papers contributed 8 papers (12.8%); Theoretical

papers (non-computer-based) managed 4 papers (6.4%); and Management & Policy (computer-based) managed 3 papers (5%). All other classifications achieved only one paper or none at all. Prior to 2000, others of my classifications were still attracting healthy enough numbers such that there was no strong evidence that these other research areas were being pushed out. It is noteworthy, though, that papers focussing on access & equity have been scant right through my analysis.

CONCLUSION

In the twenty-first century, the federal government's role has become one of ensuring provision of the infrastructure to support new technologies as all sectors and institutions become distance providers. Again, the geography of Australia is a challenge in this provision, but technology developments such as high-speed Internet connection through two-way satellite connections (O'Neill, 2005) are bringing interactive distance education to all areas. Australia is expanding its international provision of education as more stable technologies make interactive teaching at a distance possible and acceptable to students in other countries, particularly with our closest neighbors in Asia.

Australia's history of distance education has provided lessons in successful organization and administration as well as establishment of student support that has ensured a level of quality and commitment to quality in distance provision. As with all countries, this basis of knowledge and skill is not always considered, as the Internet has made distance providers of all sectors and institutions; but with a small population, the ongoing success of this provision remains with those who learn from this history.

As influential scholars of and commentators on this period of distance education history, Terry Evans and Daryl Nation (2003) have written:

Distance education has a rich history of theory and practice. It is important that this

history is built-upon to formulate a new phase of distance education in a way which incorporates the appropriate strengths and values of the past into a new form of "multi-media" education at a distance. (p. 778)

REFERENCES

- Ashton, J. (1971). *Out of silence: The story of a unique teaching system: Australia's school of the air*. Adelaide, Australia: Investigator Press.
- Batt, D. (2003, October). i-support! A smart state approach to supporting students at risk online. *Sustaining quality learning environments. Proceedings of the 16th Biennial Forum of the Open and Distance Learning Association of Australia*, Canberra, Australia.
- Carmichael, J. (1995). Voicemail and the telephone: A new student support strategy in the teaching of law by distance education. *Distance Education*, 16(1), 7-23.
- Castro, A. (1990). AARNet and Australian tertiary distance education. *Distance Education*, 11(2), 213-230.
- Cunningham, K. S. (1931). *Primary education by correspondence*. Melbourne, Australia: Melbourne University Press.
- Deakin University. (1988). *Application for designation as a distance education centre*. Geelong, Australia: Deakin University Printery.
- Evans, T., & Nation, D. (2003). Globalization and the reinvention of distance education. In M. G. Moore, & W. G. Anderson (Eds.), 2003 *Handbook of distance education* (pp. 777-792). Mahwah, NJ: Erlbaum.
- Holmes, D. R. (1977). *Survey of literature and organisations in the field of external studies*. South Australian Department of Further Education cited in D. J. Keegan, *Fifty years of distance education: Raywood 1976* South Australian College of External Studies Distance Education Series No. 2.
- Inglis, A. (1999). Looking back, looking forward: Celebrating a quarter century of serving distance education "down under." *Distance Education*, 20(1), 7-30.
- Inglis, A. (2005). Quality improvement, quality assurance, and benchmarking: Comparing two frameworks for managing quality processes in open and distance learning. *International Review of Research in Open and Distance Learning*,

- 6(1). Retrieved from <http://www.irrodl.org/content/v6.1/inglis.html>
- Johnson, R. (1983). *The provision of external studies in Australian higher education*. Canberra, Australia: Commonwealth Tertiary Education Commission.
- Johnson, R. (1996) To wish and to will: Reflections on policy formation and implementation in Australian distance education. In T. Evans & D. Nation (Eds.), *Opening education: Policies and practices from open and distance education* (pp. 90-102). London: Routledge
- Le Grew, D., & Calvert, J. (1998) Leadership for open and flexible learning in higher education. In C. Latchem & F. Lockwood (Eds.), *Staff development in open and flexible learning* (pp. 3-12). London: Routledge.
- Macpherson, C., & Dekkers, J. (1997, September 29-October 3). *Open learning centres—the perceptions of distance education students*. Paper presented at the 13th Biennial Forum of Open and Distance Learning Association of Australia, Launceston.
- National Board of Employment, Education and Training. (1992). *Changing patterns in teaching and learning: The use and potential of distance education materials and methods in Australian higher education* [Commissioned Report No. 19]. Canberra: Australian Government Publishing Service.
- National Board of Employment, Education and Training. (1994). *Costs and quality in resource-based learning on- and off-campus* [Commissioned Report No. 33]. Canberra: Australian Government Publishing Service.
- Northcott, P. H., & Shapcott, M. (1986). *The role of study centres in overall student support services in distance education*. Waurin Ponds, Australia: Distance Education Unit, Deakin University.
- Nunan, T. (2005). Markets, distance education, and Australian higher education. *International Review of Research in Open and Distance Learning*, 6(1). Retrieved from <http://www.irrodl.org/content/v6.1/nunan.html>
- Oliver, R. (2003, October). Exploring benchmarks and standards for assuring quality online teaching and higher education. Paper presented at the 16th Biennial Forum of the Open and Distance Learning Association of Australia, Canberra, Australia.
- O'Neill, R., (2005, March 15). Outback IT dreaming. *The Age Next: Information Technology for every Business*, p. 3.
- Robinson, P., Calvert, J., & Peoples, K. (1997). *Flexible delivery: Here to stay. From desk to disk: Staff development for VET staff in flexible delivery*. Brisbane: Australian National Training Authority.
- Smith, P. (2004, November). *Changing times in research? A speculative analysis of refereed contributions to Distance Education from 1980 to 2003*. Paper presented to the Research in Distance Education Conference, Deakin University, Australia.
- Stacey, E. (1994). Improving quality and effectiveness for the learner with computer mediated communication. *Proceedings of Open Learning '94* (pp. 156-161). Brisbane.
- Stacey, E. (1998). Elementary school use of audiographics for learning languages. In Z. L. Berge & M. P. Collins (Eds.), *Wired together: Computer-mediated communication in k-12. Volume 4: Writing, reading, and language acquisition* (pp. 199-207). Cresskill NJ: Hampton Press.
- Stacey, E., Evans, T., & Tregenza, K. (1999). An investigation of the development of dialogic approaches to teaching and learning in schools through interactive television. In *Proceedings of 1999 Ed-Media Conference, Association for the Advancement of Computing in Education*, Seattle, WA.
- Taylor, P. G., Lopez, L., & Quadrelli, C. (1996). *Flexibility, technology and academics practices: Tantalising tales and muddy maps*. Higher Education Division, Department of Employment, Education, Training and Youth Affairs Evaluations and Investigations Programme, Canberra: Australian Government Publishing Service.
- Tennant, J. (1999). Teleteaching with large groups: A case study from the Monash experience. *Australian Journal of Educational Technology*, 15(1), 80-94.
- Yetton, P., & Associates (1997). *Managing the introduction of technology in the delivery and administration of higher education*. Higher Education Division, Department of Employment, Education, Training and Youth Affairs Evaluations and Investigations Programme, Canberra: Australian Government Publishing Service.