

# Chapter IX

## The Diffusion of New Technologies: Community Online Access Centres in Indigenous Communities in Australia

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### **ABSTRACT**

This chapter presents data from the 2001 Census of Population and Housing to highlight the low levels of computer and Internet usage by indigenous Australians. This result is not surprising, given the well-documented connection between education, income, location of residence and use of these technologies. One possible way of addressing the digital divide between capital city dwellers and other Australians is through the development of community online access centres. Using evidence from the literature and from fieldwork in New South Wales, the chapter considers some factors that are likely to make these centres more successful. These include a strong commitment by

the community to the development of a centre and a close integration of the centre with community activities. It is important that significant funds be budgeted to training for all involved including centre staff and community members.

### **INTRODUCTION**

There has been a general concern that particular groups have been left behind in the diffusion of new information and communications technology (ICT) and the related skill development, and that this may have long term implications for the ability of these people to participate in society. indigenous Australians, both aboriginal and Torres

Strait Islanders, are among those at risk. Earlier research by Lloyd and Hellwig (2000) looked at the determinants of the take-up of the Internet. They found that educational qualifications and income were the major determinants of access to the Internet at home. Living outside a major urban area was also associated with lower levels of computer and Internet usage. On the basis of all these indicators, indigenous Australians were expected to fall on the wrong side of the digital divide. Education levels and income are lower for this group than for non-indigenous Australians (Altman, Biddle, & Hunter, 2004). In addition, a larger proportion of indigenous compared to other Australians live outside the capital cities. Access to the Internet has been less reliable and more costly in these areas than in the cities (Besley, 2000; Regional Telecommunications Inquiry [RTI], 2002).

The 2001 Population Census was the first census to ask Australians about their access to computers and the Internet. The results show that while 30% of non-indigenous Australians had access to the Internet at home, less than 10% of indigenous Australians did. Other research has also documented low levels of computer access at home for school-aged indigenous Australians (Dyson, 2003). The purpose of this chapter is to examine the census evidence on computer and Internet usage for indigenous Australians and to consider whether the development of community online access centres can help to bridge the digital divide between indigenous and other Australians. It highlights the indicators of success and the limitations these centres have faced using evidence from the literature and fieldwork conducted in New South Wales (NSW).

### **Computer and Internet Access for Indigenous Australians**

The 2001 Census provides a useful aggregate picture of home access to computers and the Internet and includes information on indigenous

Australians for the first time. Several studies have used these data to investigate the use of new technologies by indigenous Australians. Lloyd and Bill (2004) developed a model for explaining the determinants of home computer and Internet usage. They found that Australians with higher levels of educational attainment and incomes were more likely to access the Internet at home than those less qualified and with lower incomes. Their results show that people with poor English language skills, indigenous Australians and those living in remote areas were less likely to use a home computer or access the Internet than a non-indigenous urban married man working in a white-collar job with no children and no tertiary qualifications. While the probability of the latter person using a computer at home was 43.8%, a person with identical characteristics, except that they were indigenous, only had a probability of home computer usage of 20.3% — a gap of 23.5 percentage points. There was also a substantial gap of 22.5 percentage points in the predicted probability of using the Internet for the non-indigenous male compared with an indigenous person with otherwise identical characteristics. According to Lloyd and Bill's results, being indigenous was one of the most important negative determinants of computer and Internet usage.

Biddle, Hunter, and Schwab (2004) have used the census data on Internet access to analyse indigenous participation in education. Based on a detailed geographical analysis of those data, they found that access to the Internet at home raised the probability of educational attendance. They interpreted this variable as an indicator of educational attainment in a household and support for educational participation. Their analysis shows substantial differences between indigenous and other Australians in their access to the Internet, particularly in remote areas.

The census data are used here to present a broad picture of computer and Internet access; for more detailed tables see Daly (2005). Table 1 summarises the census evidence on access to

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