Chapter 13
Three Stages in the Social Construction of Virtual Learning Environments

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ABSTRACT
Schools located in rural communities are often physically small in terms of the number of students who attend them in person on a daily basis, but through the introduction of e-learning partnerships, they can become large educational institutions based on the enhanced range of teaching and learning they can provide. Small school capacities can be enhanced by e-learning and the creation of virtual learning environments. Structurally, the capacity of schools can be enhanced by internet-based inter-institutional collaboration. Pedagogically, e-learning can enable schools to share teaching and learning within virtual learning environments spanning participating sites to facilitate student engagement with ideas, people and places in new, interactive ways. Three stages are identified in the development of teaching and learning in the virtual structures that complement traditional schools.

INTRODUCTION
Schools have traditionally enrolled their own students, appointed their own teachers and been organized to serve designated communities and it is not uncommon for them to be named after the town, suburb or community in which they are located. Some schools take pride in the preservation of their traditions and culture and instilling in students a strong sense of identity with the institution in which they are educated. It is possible to consider traditional schools as closed learning institutions in that they are autonomous organizations, distinct not only from other forms of institutional life but also from other schools. This traditional school model has been around for a long time and almost everyone will be familiar with it. The closed model of educational provision, based on traditional schools, has been challenged by the introduction of the Internet, expansion in information and communication technologies, a growing range of educational software and the integration

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of computers, particularly laptops, in both teaching and learning. It could be argued that the most distinctive feature of the changes being brought to classrooms by the Internet and technologies associated with it is their inherently collaborative nature. Computers are communication tools that facilitate new ways of interacting between teachers and students as well as providing efficient ways of accessing information. With increasing use of computers and the Internet in schools, the closed model of education is changing and an increasingly open approach to teaching, learning and classroom life based on individual and institutional collaboration has emerged. Nowhere is the move from closed to open teaching and learning more apparent than in rural schools in developed societies. The changes that have taken place in some rural schools encourage re-examination of the educational significance of physical isolation in terms of time, space, organization and school capacity. In a growing number of small schools in rural communities the introduction of virtual teaching and learning environments to traditional closed classrooms challenges perceptions of school size, location and the delivery of curriculum options. Above all, the integration of actual (or physical) and virtual classrooms has the potential to address long-standing policy issues of equality of access to educational opportunities by students who live beyond major centres of population.

BACKGROUND: SMALL SCHOOLS IN RURAL COMMUNITIES

In almost every society there are families who live beyond major centres of population. In Australia (Henry, 1989; Jarvis, 1990; Stevens, 2007), New Zealand (Starkey & Stevens, 2006; Stevens, 1999b; 1994) and Canada (Healey & Stevens, 2002; Stevens, 1999a; Tucker & Stevens, 1999) access to educational opportunities by students, particularly those in rural high schools, has been a long-standing policy issue. In Australia, for example, the federal government has sought answers why young people from rural areas of that country enter universities and other institutions of higher learning in proportionally fewer numbers than their urban counterparts (Abbott-Chapman, 2001; Commonwealth Schools Commission, 1988; Goulding, 2001; James, et.al., Stewart, 2003). It has been common for rural high school students to either board at urban residential schools or be bussed to larger institutions where they can be taught by specialist teachers (Baker & Andrews, 1991). The development of rural school intranets has transformed many schools located in rural communities that are physically small in terms of the number of students who attend them, in person, on a daily basis, but, through the introduction of internet-based e-learning partnerships, have become larger and more comprehensive educational institutions based on the enhanced range of teaching and learning they can provide.

Rural Education in the Canadian Province of Newfoundland and Labrador

Atlantic Canada consists of four provinces: New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland and Labrador. Newfoundland and Labrador covers by far the largest area of Atlantic Canada and, particularly in Labrador, there is very sparse population settlement. Newfoundland and Labrador’s small population of approximately 500,000 residents in a large geographic area (156,185 square miles) presents challenges for the delivery of education, particularly at senior high school level. Newfoundland and Labrador has many small coastal communities, a predominantly rural lifestyle in most of the province and a distinctive history and culture.

In Newfoundland, the island portion of the province, almost all of the population lives in coastal settlements, including the capital, St John’s. A decade ago approximately two thirds of schools in the province were located in rural