Distance Education in South Dakota: A Historical Perspective

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The fall of 2000 has brought broad new opportunities to K-12 education in South Dakota. Beginning on August 15, 2000 interactive videoconferencing classes began to be sent over the Digital Dakota Network (DDN), a state-wide telecommunications network connecting all 176 school districts in the state. The DDN provides schools with free Internet, videoconferencing and e-mail. Although the DDN and statewide videoconferencing is new to South Dakota, regional video conferencing within the state is not.

As early as 1994, classes were offered over the North Central Area Interconnect (NCAI), a video consortium of eight schools in the northeast part of South Dakota. An advisory committee made up of one principal from each district advises the governing board of the NCAI. The governing board who actually makes the decisions is composed of a superintendent from each district. It is estimated that the original development of the NCAI system cost $1.3 million. A portion of the funding came from a Rural Electrification Administration grant with the member districts providing the remainder of the startup costs. Member schools presently pay $11,000 a year membership fee and educators teaching over the system are given a $450 stipend a semester.

Early class offerings on the NCAI included Spanish and Lakota Indian Art. NCAI has continued to expand their course offerings to students and by the spring of 2000, NCAI was in a situation where they were contemplating adding an additional videoconferencing classroom to meet their student curricular needs.

Lloyd Trautman, a physics teacher on the NCAI, and his wife, a Spanish teacher over the network, have been teaching on the system since the first year. Lloyd was among distance education's harshest critics when the NCAI started. Today Lloyd is one of distance education's strongest advocates in the state because of his experience and the benefits of distance education that he has seen firsthand. In a school with an enrollment of 100 students in grades K-12, distance education has met a variety of needs that would never have been possible. The NCAI schools have experienced the benefits of distance education.

A second video consortium, the Sanborn Interactive Video Network (SIVN), began offering classes in January of 1996. This consortium of six K-12 schools, a private university, and a technical institute, utilized a Rural Utilities Services (RUS) grant to fund a portion of the startup costs to establish their network. Member schools pay $3,000 a year to cover administration of the system and pay a $400 stipend to educators that teach over the system.

The Southeast Interactive Long Distance Learning (SILDL) started offering classes in the fall of 1998 to its 11 member schools in the southeast corner of the state. A portion of this million-dollar system was paid for by a RUS grant. Members pay $3,000 a year to cover administration of the system and pay a $500 stipend to educators that teach over the system.

The SILDL started with 9 classes and 100 students and within two years is offering 15 classes to 225 students. This consortium has also been in a position of needing to add a second video classroom to cover the demands of the member schools. The principals and superintendents of the member schools have regular meetings where they indicate which classes they are able to offer and which classes they need. Additional information on the SILDL can be found at: www.usd.edu/sildl.

A fourth video consortium, the East Central Interconnect (ECI), started classes in the fall of 1999. The ECI received a RUS grant which provided a strong start for the funding of this million-dollar system. Teachers on the ECI are paid a $600 stipend.
per semester of teaching. A school board member from each of the 10 member schools governs the ECI. They receive advice from two advisory groups of representative superintendents and principals. The ECI offered nine classes to 119 students its first year and eight classes to 131 students during the 2000-2001 school year.

All four of these consortiums provide their teachers with training on equipment and strategies on teaching at a distance. Each has developed policies that govern the activities of each consortium. All have felt that their choice to try videoconferencing as a means of distance education for their students was a wise decision and investment.

Additional initiatives by other districts have also occurred. Two consortia of K-12 schools are in the planning stages of implementing a video network. Two independent school districts have also purchased video conferencing equipment which they have used over the last two years to connect their students with resources inside and outside the state.

In 1994, a satellite network, the Rural Development Telecommunications Network (RDTN), was established across the state. It consists of 18 two-way audio/video studios located throughout the state at universities and technical institutes. In addition, 80 downlink sites located primarily at school districts were connected to the RDTN. These sites have one way video/two-way audio. Use of the RDTN network is on a fee per use basis. The RDTN has provided South Dakota citizens the chance to experience the opportunities that a two-way audio/video system can provide a large geographic region like a state.

This network has been used widely by government, education, and health organizations to provide information and training. The RDTN satellite downlinks have also provided a vehicle for several rural schools in the state to receive high school Spanish and Chemistry. Many districts have taken advantage of these classes which they would otherwise not been able to offer their students.

Distance education at the higher education level in the state began in 1914 at South Dakota State University with extension activities, and in 1915 the University of South Dakota began offering correspondence courses. The six state universities have taken advantage of the one-way video/two-way audio capabilities of the RDTN to offer courses to college-level students and to offer dual credit to high school students.

More recently, Governor William Janklow allocated funds to each of the five state universities to establish a "smart classroom" or a Governor's Electronic Classroom (GEC). Each classroom contained individual computer workstations and video conferencing equipment. The GECs provided high tech classrooms for universities to provide instruction at distance.

On July 1, 2000, the Electronic University Consortium (EUC) of South Dakota officially began operation. This consortium is intended to leverage the state's technology investments and make effective use of the unique strengths of each public university to better serve the people of South Dakota by coordinating off-campus distance education across the South Dakota System of Public Higher Education. This consortium was made possible through legislative action during the 2000 session which made funding available for staff to coordinate the consortium's activities.

In the fall of 2000, the higher education institutions in the state are offering distance learning opportunities via the internet, satellite, videotape, public television, and correspondence. With over 700 South Dakota college students enrolled in multiple institutions within the state taking distance education courses during the fall 2000 semester, the face of higher education in the state is also changing.

Since 1995, Governor William Janklow has slowly and very carefully built a robust technical infrastructure across the state of South Dakota. In 1995, he initiated the Wiring the Schools (WTS) project, which put three computer drops for every four students in every classroom, pulled Cat 5 and fiber optic wiring throughout the schools, and upgraded the electrical wiring to manage the greater electrical demands of numerous computers. (See accompanying article regarding WTS.) The work of WTS included all public school classrooms, private schools, public libraries, and both public and private university classrooms and dormitories.

In the spring of 1999, Governor Janklow announced a second statewide initiative, Connecting the Schools (CTS). This initiative built a statewide intranet among all 176 school districts bringing T1 access into every public school building, K-12. High-end two-way audio/video systems were put into almost every public high school and freestanding middle school. (See related article on CTS.) The Connecting the Schools project built upon the efforts of Wiring the Schools project, establishing a statewide network called the Digital Dakota Network (DDN). The Internet access and e-mail services provided via the DDN are free to all public schools. Video conferencing connections made within the state are also provided free to all schools.

Even though a huge investment has been made in the infrastructure of the DDN, Governor Janklow has always recognized the necessity of developing human infrastructure as well. During the 2000 session, the South Dakota Legislature created a new office within Department of Education and Cultural Affairs called the Office of Educational Technology. According to Section 4 of House Bill 1257, the Office of Educational Technology's "exclusive role shall be assisting local school districts in using educational technology. Its purpose shall include researching, analyzing, procuring, and distributing programs and methods us-