Alaska has been forced by geography and weather to look at numerous innovative solutions to improving communication between families and schools. The Internet is showing more impact than any other technique that has been tried. This has been especially helpful to parents of children with disabilities, due to a severe shortage of special education professionals. Although not every family has a computer, public Internet access is available at 90 percent of the public school libraries and at Native corporation or tribal council offices. There are programs to give or lend computers to families without them, and many families have e-mail accounts at their workplace. A bigger problem than connecting families to the Internet is convincing technologically timid parents to try it. Among the strategies being employed are interactive Web libraries, chat groups, bulletin boards, discussion lists, person-to-person e-mail, and homework e-mail lists. Delta Greely Cyber Charter School provides education directly to families' homes for grades 7-12 using Internet conferencing, live chat technology, and e-mail. The school is extremely popular, and has experienced a recent surge in enrollment of students with special education needs. The Alaska statewide correspondence school increasingly is using computer and Internet based services. The cyber and correspondence schools loan computers to families without access to one. Laptop computers are loaned to island families that have to travel to neighboring islands with telephone lines. The Alaska Department of Education plans to conduct studies to determine the effectiveness of Internet based education. (TD)

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USING THE INTERNET TO CONNECT PARENTS AND PROFESSIONALS: THE CHALLENGES

Imagine a rural educational setting where you are serving students and their families living in the remotest possible setting. What this is really like is more challenging than you can imagine.

Alaska is a state that, if superimposed over the 48 contiguous states of the United States, would stretch from the Pacific Ocean to the Atlantic Ocean (over 2,700 miles from East to West). We think nothing of hopping on an airplane and flying 1,600 miles to remote villages on the other side of the state.

The population is very small (approximately 600,000) and one third of the population in this vast expanse (over 245 towns and villages) have no access to a road network. It has the lowest population density in the nation, only one person per square mile (1991), compared to 71.2 people per square mile for the entire U.S.

As I write this, the snow banks in front of my house in Douglas are over eight feet high. Further north in Fairbanks they have been suffering with more than a week of temperatures ranging from -50 to -60 degrees Fahrenheit. Meanwhile at the PARENTS, Inc. main office in Anchorage (the only large city in Alaska, with about 225,000 people), the moose are stomping around downtown and in the PARENTS, Inc. parking lot looking for food.

Flying to the remote Pribilof Islands in February can mean preparing to be stranded by weather for over a week and sleeping on wrestling mats in the special education teacher's classroom. It can also be as fun as catching an "air taxi" from the Ketchikan float plane docks and being dropped off in front of a tiny island school (Alaska has thousands of islands).

Many teachers and special education professionals in Alaska must serve students over a wide distance. Many locations are so isolated that they cannot attract qualified applicants for positions, even when they can pay for them. When a teacher or professional does finally move to an isolated village, they sometimes find that there is no house or apartment for them, and no hotels or other lodging. The turnover rate for school staff in some schools districts, such as the Aleutians East School District, is over 70% a year.

A common solution to this predicament is flying teachers and professionals into these villages, but this is very risky during the winter. Itinerant teachers and special education professionals are very common throughout Alaska. Many professionals must fly regularly to over 20 villages a month to provide services. Even communicating through mail can be difficult. Some villages will spend as long as a month with no mail service because of weather conditions.
A few rural schools districts with more money (notably the North Slope Borough School District) have set up expensive live video conferencing equipment to all their village schools. One teacher located in Barrow can simultaneously teach in 10 village classrooms at once. However, most school districts don't have the money for such a solution. In fact, many village have almost no monetary economy at all. Numerous villages throughout Alaska continue with a subsistence way of life as they have for thousands of years. They hunt and fish for their food, and barter with each other.

In the midst of all this, you must also consider that much of Alaska has very poor health and sanitary conditions. Many villages still have no sewer systems or garbage collection systems. At a recent workshop I gave for parents of children with disabilities in the ancient Tlingit village of Hoonah, the parents insisted on proudly giving me a tour of their new garbage dump.

As a consequence of the poor health and sanitation, Alaska has a considerably higher rate of childhood disabilities than other states. This, coupled with the difficulty in getting appropriate services to them, create an extremely challenging situation. Families throughout Alaska express extreme frustration in trying to get services, trying to communicate with professionals, and finding information to help themselves. Many families have had to give up their children to foster homes in locations that could provide services, or have had to uproot their lives and move.

Many approaches to service and communication problems in Alaska have been tried. Most have met with limited success. A new solution has presented itself that seems to have a much broader ability to overcome the geographic and weather barriers of Alaska. This solution involves the Internet.

THE INTERNET AS A SOLUTION

The number of Alaska schools with Internet access has risen from 60% in 1995, 70% in 1996, and finally to an estimated 90% by the end of 1998. Federal E-rate grants have only just started being received by school districts in Alaska to complete connecting their schools to the Internet. The Alaska Department of Education has no doubts that 100% schools in Alaska will be connected to the Internet by the year 2000.

Some schools report having Internet access in only one or two computers in their school. However, nearly all of them have written technology plans showing that they plan to greatly expand the number of computers by the year 2000.

Various sections in the Alaska Department of Education are reporting an increase of more than 25% a year in the number of e-mail requests for information from parents and professionals. PARENTS, Inc. itself has seen an increase of almost 75% in the 1998 of e-mail messages. Clearly this media is being used at a rapidly increasing rate in Alaska.

THE INTERNET FOR FAMILIES WITHOUT COMPUTERS

Alaska's schools clearly are becoming wired. But what about parents? How can parents of children with disabilities use the Internet to connect with professionals when many of them live with very little money and have no computers? First, it is only an assumption prevalent in middle-class American communities that connecting to the Internet is done via a home computer. In Alaska, most rural schools double as community centers, and their libraries are also the community library. Most villages also have a native corporation or tribal council office. These sites all have Internet access and are primary gathering locations for residents. In addition, there are numerous initiatives, described later, that are putting Internet-ready computers directly in the hands of low income individuals.
A common practice in many of the schools in Alaska is to hold family Internet evenings. Parents are invited to come to the school to see what their children are doing on the Internet and to use the Internet connections themselves. Frequently teachers conduct beginning introductions to the Internet workshops for parents.

Most public libraries in Alaska, which are frequently the school libraries in small villages, have public-access Internet computers. These community libraries regularly hold beginning Internet classes for the public. Other community organizations, including PARENTS, Inc., have set up public Internet stations at numerous locations around the state. Several organizations have recently announced plans to expand this concept to more communities.

Organizations and schools also hold scheduled times for parents to come and use Internet connections to participate in live discussion groups on disability and parenting subjects. By doing this as a group, parents who have no Internet skills can get help from the sponsoring school or organizations. Parents also have a chance to discuss what is happening with other parents and community members who are present, as well as discuss issues with an international group through the Internet. I have personally held several such gatherings at my own house, setting up as many as three simultaneous computer connections for parents to share posting questions on Internet bulletin boards or participating in live chats.

Another common solution is to donate older computers to families. Several agencies, including PARENTS, Inc., have regularly donated computers to families who could not afford one. These computers are refurbished and loaded with software that will help both parents and child, and a modem, when possible. This type of program has been very difficult to manage and organizations that refurbish and distribute older computers do so sporadically. The main difficulty is the time involved and finding people with a high degree of computer expertise and enough time to manage the program.

The fastest growing option for connecting parents without computers to the Internet is to lend computers to the families. Numerous schools in Alaska have received technology grants that allow them to loan newer computers with software and Internet connections to families. Alyeska Central School, Alaska's statewide correspondence school, and Delta Cyber Charter School, an experimental online K-12 school, both loan computers to families who do not have any.

It is possible for families who use to borrowed computers, libraries, or other public access computers to have their own e-mail address. Numerous free Web-based e-mail account services exist, such as www.hotmail.com, and at www.yahoo.com. E-mail on these services can be read directly from any web browser on any computer with an Internet connection.

There are an increasing number of opportunities for connecting families to the Internet who do not have connections. The biggest problem is to actually convince technologically timid parents to try it.

PROMISING STRATEGIES

There are numerous exciting strategies being carried out or in the planning stage to use the Internet to connect parents and professionals.

Interactive web libraries, notably at PARENTS, Inc (www.alaska.net/~parents/), allows both parents and professionals to browse the card catalogs of the PARENTS, Inc. library and automatically check items out. Items are mailed within Alaska at no charge. PARENTS, Inc. was recently awarded a grant to expand this program to offer connections to other organizations' libraries through the same automated request system. Comments from parents and professionals have been extremely positive.
Web-base chat groups have proven to be an effective way to connect parents and professionals. Most of these chat groups are moderated and scheduled for specific times. During those times parents and professionals from around the world can gather for live discussions on the specific subject posted. Parents have stated that this type of experience is very exciting, but also a bit overwhelming. The technology usually only allows for short statements at a time. You also have to sometimes contend with hundreds of people talking at once. The older IRC (Internet Relay Chat) technology is no longer used very much in Alaska since it is not as convenient and easy to use as the newer Web-based chat groups.

Web-based bulletin boards provide a way for individuals who do not have their own e-mail account to post messages and come back in a day or two to see what answers have been posted. I set up one myself on the Alaska Career Information System site (http://www.educ.state.ak.us/AKCIS/) which is used to discuss career related topics. This provides an excellent way for people to visit and search the discussions to see if anyone has asked or answered a similar question, especially on major national sites.

E-mail discussion lists are one of the most popular ways to connect parents and professionals. Numerous lists allow people to join discussions on various subjects. I participate in an international autism list that has several hundred participants. Discussions have very friendly and many people feel that they start to know each other personally. Many problems are solved in group discussion between parents and professionals in these discussion lists. In an e-mail discussion list, a person sends an e-mail message to the list e-mail address. The message is then forwarded to all participants. People can then reply directly to you or send it to the list e-mail address for everyone to read. I have had several difficult problems with my son solved over such e-mail discussion lists.

Person-to-person e-mail messages are a common means of communication between parents and professionals. Many parents have e-mail at work and can exchange messages with teachers. This solves the problem of "telephone tag" that frequently occurs otherwise. I myself use it frequently to talk with staff. E-mail messages are also frequently received by PARENTS, Inc. and similar organizations. These questions and requests for information get immediately answered or forwarded to people with expertise around the state.

A very useful idea that is used by Dzantik'i Heeni Middle School in Juneau is a homework e-mail list. Teachers type out a few sentences into a document on the school's network at the end of each day describing what homework was assigned in their classes, or if there is no homework. One teacher is assigned to take that document at a specific time at the end of the day and e-mail it to a list of parents who have provided their e-mail addresses. Parents receive this list at work or home about the time their children have left school. This e-mail frequently includes assignments made by the special education teachers as well. For parents of children with poor verbal skills or who have trouble communicating (such as children with autism), this provides an excellent way to find out what has been assigned. It also provides a way for parents to see what other teachers are assigning and what students in the regular education programs are getting as homework. For teachers, this takes much less time than handwriting notes to different parents, and can considerably reduce the time they spend on trying to communicate with families. For parents, it ensures more consistent communication on a daily basis. At least 75% of parents in that schools appear to receive this e-mail service. It helps that most parents have e-mail at work, even if they don't at home.

The Delta Greely Cyber Charter School is a new experimental school for students in grades 7-12. It was given conditional approval by the Alaska State Board of Education in 1997 to accept students anywhere in Alaska. The plan was to provide online, Internet-based, education directly to families' homes. The instruction is provided live using various Internet conferencing software and technologies. Parents who do not have home computers are loaned one and assisted with obtaining Internet accounts. The school initially estimated that it would have about 100 students. By the end of the first year over
1,800 families were enrolled. The cyber school has invested considerable attention to connecting parents with teachers through the Internet. This is done through Internet conferencing, live chat technology, and e-mail. This concept has proven to be extremely popular. A recent surge in enrollment of students with special education needs has sent the program hurrying to obtain help from various agencies, as well as working out a special arrangement with PARENTS, Inc. to help provide services to parents. The program has been so popular that several other school districts have requested permission to start similar programs. At present the Alaska Department of Education has denied such requests. The Alaska Department of Education is preparing to do a more thorough study to see how well this concept is working and to determine if more districts should be allowed to function as virtual schools without school district boundaries.

Alyeska Central School is Alaska's statewide correspondence school run out of the Alaska Department of Education. This school has been rapidly making the switch from paper-based communication, to computer and Internet-based services.

Gail Haynes, counselor for the school, stated that there has been a great increase in parents communicating with staff and teachers through e-mail. Many parents have found that e-mail is easier for them to communicate with than over the telephone. Haynes suggested that this might be due to the fact that e-mail can be delivered through a local phone call to an Internet service provider, rather than making a long distance call. Long distance calls can get disrupted by solar flares and bad weather, and when you place a voice call, you frequently get voice mail instead of a person. In contrast, e-mail is checked by the teachers several times a day.

Many Alyeska Central School families who do not have computers are shipped computers on loan. These computers are loaded with different software, but not always with a modem. Haynes states that this is something they are working on adding since it is very important to encourage better communication. Some families they serve live on isolated islands that only have radio telephones with poor reception. These families frequently take their small boats out to neighbor islands where more reliable telephone communication exists to contact the school or check e-mail. For these parents, the school has provided laptop computers that they can take with them and plug into telephone lines on nearby islands.

SUMMARY

Alaska has been forced by geography and weather to look at numerous innovative solutions to improving communication between families and schools. The Internet is already showing a much heavier and widespread impact than any other technique that has been tried. The numerous programs in place to provide computers and Internet connections for those who do not have any are rapidly expanding.

The numbers of participants and other statistics are showing that this is one of the most popular solutions to communication. Anecdotal evidence suggests that it may be one of the most effective. Representatives from the Alaska Department of Education state that several studies will be conducted in the next few years to determine whether this trend is really making a difference.

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Signature: 
Diane Montgomery 

Position: 
Associate Professor 

Printed Name: 
Diane Montgomery 

Organization: 
Oklahoma State University 

Address: 
424 Willard Hall 
Stillwater, OK 74078 

Telephone No: 
(405) 744-9441 

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