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ONLINE SCHOOLS
A NEW FRONTIER IN PUBLIC EDUCATION

ON THE COVER

A farm town finding its way in the modern world, Fairfield, Montana, has welcomed a new online distance education program into its high school. Nine students from Fairfield High School are participating in the pilot phase of the Montana K–12 Online Distance Learning Initiative, one of two major distance ed initiatives being launched across this Big Sky state. See story, Page 20.

Photo by John Reddy

NORTHWEST
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FEATURES

Web exclusives at nwrel.org/nwedu

DEPARTMENTS

On the Web

Northwest Education is available online in both PDF and HTML versions at www.nwrel.org/nwedu. Look for Web exclusives, marked with .

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Statement of Purpose
Northwest Education aims to promote a regional dialogue and to elevate teaching and learning by giving readers the best information, ideas, and personal stories from practitioners, researchers, and other experts.

FORUM

Design Matters

Thank you for your comments regarding beautiful schools affecting people—both students and teachers, and communities as a whole ("Designs for Learning: School Architecture," summer 2001). I am an architect in Charlotte, North Carolina, and I often get discouraged when school leaders' only focus is on the dollar. We don't have to break the bank but—like you say—we do need courage to explore ways architecture and places can have a positive effect on students and teachers and how they perform. If you know of other resources that reinforce this idea, I would love to have it as ammo to take to our customers and school leaders.

Tom Balke, AIA
Senior Associate
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Editor's note: A helpful Web site for those interested in school design is offered by the National Clearinghouse for Educational Facilities at www.edfacilities.org. The site, funded by the U.S. Department of Education, features separate sections on design and construction with numerous case studies and information on everything from color theory to outdoor learning environments and roof selection. Also, Business and Professional People for the Public Interest (at www.bpichicago.org) recently published a book on their national design competition for Chicago public schools. The competition, called "Big Shoulders, Small Schools," drew more than 100 entries from top architects around the country and focused on accessibility issues and small school design.

More Resources on Native Education

I enjoyed reading your issue on Native students. I thought you might be interested in two recent related publications. The first is *American Indian Education: A History,* which you can read about at www.oupress.com/bookdetail.asp?isbn=0-8061-3593-X. The second is *Nurturing Native Languages,* the full text of which is online at http://jan.ucc.nau.edu/~jar/NNL/.

Jon Reyhner
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Inspiration for Students With Dyslexia

This article ("From Personal Advocacy to Public Activism," spring 2003) was truly inspirational to me. I have a 10-year-old dyslexic student whose greatest wish is to be "normal." She doesn't believe she is as smart as her peers and is struggling to appear as if she has no reading problems. I got some great ideas from this article. Thanks so much. I feel like there is hope!

Rashonda Gudger
Teacher
Jefferson High School
Portland, Oregon

We want to hear from you! Send your letters to the editor, article ideas, and tips on places where good things are happening to nwedufeedback@nwrel.org. Letters may be edited for length or clarity.

EDITOR'S NOTE

One of the most surprising things to learn about online education is that it's a deeply human endeavor. Call it "e-learning," "cyberschool," "virtual." Call it what you will, it stirs genuine emotions. In the print and online stories that appear in this issue of *Northwest Education,* teachers and students tell us that the intimacy of one-to-one computing has let them get to know and understand each other better than they ever could in a crowded classroom. In "Long-Distance Relationships," a blind student speaks about the uncommon bond he feels with the online teacher who taught him to design Web pages. Similarly, a teacher featured in "The Online Teacher: When the Wee Hours Are Prime Time" says one of the greatest rewards of teaching online is when students express themselves freely in the personalized environment of her online courses.

Administrators tell us, in a rush of enthusiasm, that their online programs are drawing former drop-outs back to school. Read the Web Exclusive story, "Giving Fresh Starts," in the online version of the magazine at www.nwrel.org/nwedu/. In a story about Alaska's radical experiment in distance education, "Crossing the Public School-Homeschool Divide," homeschooling parents express relief and gratitude that they can tap high-quality resources that are available from online education programs.

It's not roses every day, of course. Online education is playing havoc with public education as we know it. Policymakers are scrambling to write new laws and guidelines to support this new mode of delivery, while respecting the principles of public education, such as free and universal access, equity, and local control. State legislatures and education departments are quickly catching up with the explosion of online programs that are being launched from Barrow to Brookings. But the pressure to make weighty decisions, in the midst of so many uncertainties about this educational innovation, can make even steadfast proponents anxious, frustrated, and testy. Nevertheless, we heard a lot of optimism and conviction in the voices of the men and women who talked to us about the future of online education in this region. Be sure to read "The Search for Funding" as well as the Web Exclusive story, "Minding the Gap: State Cybersolutions to NCLB Mandates."

While the jury's still out on how—and how well—online education can serve young people's learning needs, researchers are setting to work in this new field of study. They have much to do to fully uncover the strengths and weaknesses of online education at the elementary and secondary level. Nevertheless, it looks like it's here to stay. As many as 1 million high school students in the nation are taking online classes, according to one estimate, and online learning is a staple offering of colleges, universities, and professional development providers.

Teachers tell us that being a good online teacher requires every bit of the art, craft, and professional skill that it takes to teach in a conventional classroom. But it *is* different. As one teacher puts it, online pedagogy requires a teacher to be warm and engaging over a keyboard. There are practical strategies for achieving that kind of personal touch, says NWREL's Kirk deFord. A member of the Northwest Educational Technology Consortium (NETC), deFord speaks around the country about the art of online pedagogy. In December he helped lead an Online Teachers@Work Symposium in SeaTac, Washington. Teachers from all over the country came, sharing their tips and insights so that NETC can prepare resources to help teachers excel online. Visit NETC's expanded Digital Bridges Web site, www.netc.org/digitalbridges/, where you'll find tools and resources for Web-based learning as well as videoconferencing. The fruits of the Online Teachers@Work Symposium will also be made available on this Web site when they're completed next summer.

Online education is a sprawling topic. We chose to focus mostly on statewide online programs that are coming from the K–12 public school sphere. We also give special attention to what is taking place at the state level. But we're focusing on moving targets. As I write, I can be certain only that the circumstances and details of the programs and people we've featured here are changing. These are stories that are still in the making. Online learning is a new frontier for K–12 schools, and the risks and benefits can be substantial, but the Northwest has always been rich with enterprising pioneers. Some of these hardy and visionary folk are featured in this issue of *Northwest Education.* With forward-thinking pragmatism, they are making tracks in new territory.

—Denise Jarrett Weeks, jarrettd@nwrel.org

ONLINE SCHOOLS

A NEW FRONTIER IN PUBLIC EDUCATION

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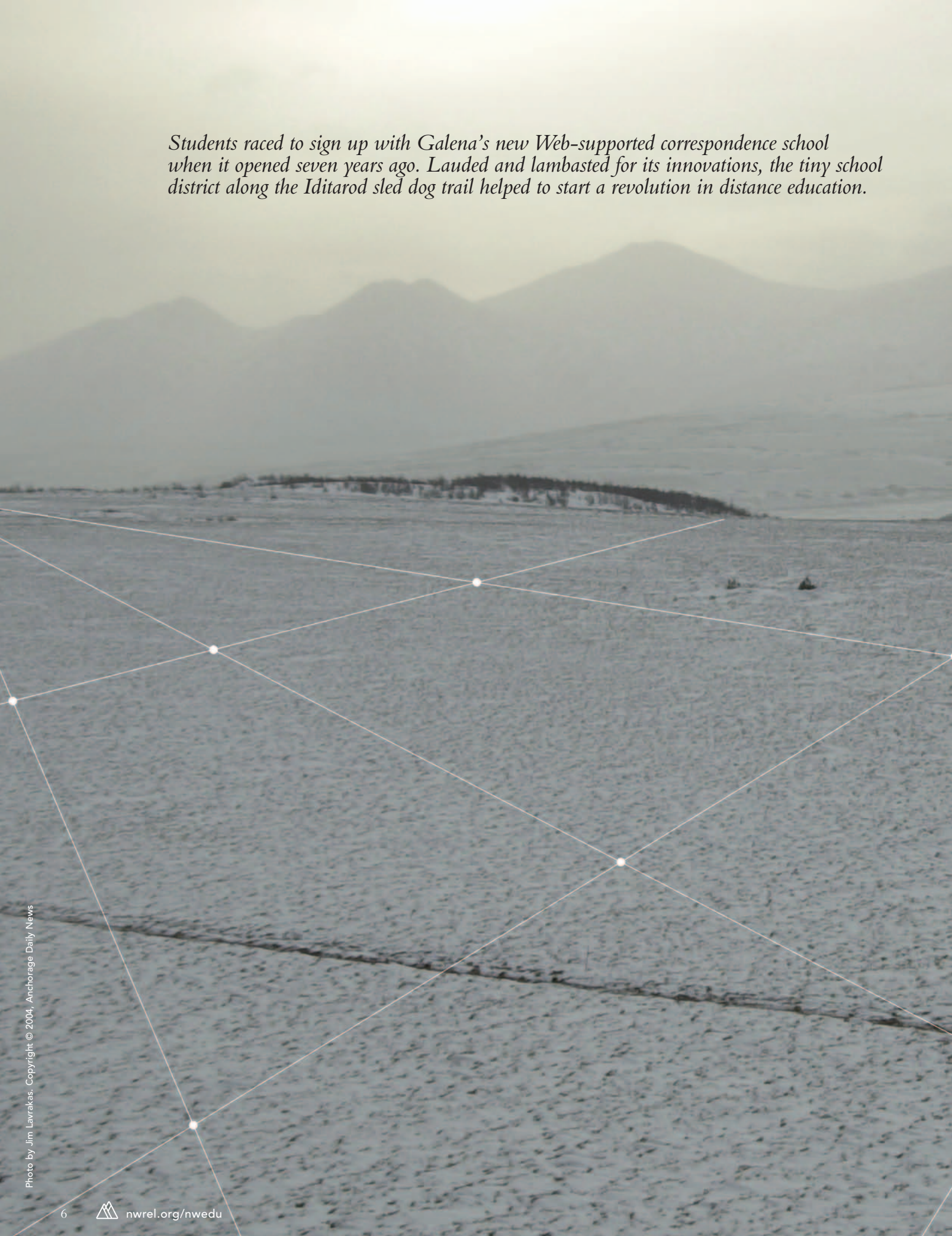
Students raced to sign up with Galena's new Web-supported correspondence school when it opened seven years ago. Lauded and lambasted for its innovations, the tiny school district along the Iditarod sled dog trail helped to start a revolution in distance education.



CROSSING THE PUBLIC SCHOOL-HOMESCHOOL DIVIDE

STORY BY RHONDA BARTON

GALENA, Alaska—Hard by the icy Yukon River, Galena seems an unlikely place for a $16 million educational empire. The Athabascan village—with fewer than 700 residents and no roads to connect it to the outside world—sits halfway between Fairbanks and Nome, at the midpoint of the famed Iditarod dogsled race route.

It would have been easy, and understandable, for this isolated frontier outpost to accept its fate as just another struggling Native community in Alaska's vast interior. How then did Galena catapult itself to the forefront of Alaska's distance education system with a program serving more than 3,700 students in all corners of the state? Ask Galena's boosters—and even some of its detractors—that question and they'll point to a combination of online technology, bold entrepreneurialism, and unbridled vision. It's a mixture that's brought the district both praise as an educational innovator and criticism as a crass opportunist.

DRIVEN BY NECESSITY

According to the old adage, necessity is the mother of invention. That neatly sums up the situation Galena found itself in during the early 1990s. The Air Force base that served as the economic lifeblood of the community was on the verge of closing and packing up its 300 airmen. Village elders and business leaders considered their options for softening the blow. They came up with a plan to turn the soon-to-be-abandoned base into a residential vocational school, loosely modeled after the state-run Mt. Edgecumbe boarding school in Sitka. The sticking point, of course, was how to pay for such a facility. Figuring that out became the first priority of the new superintendent, Carl Knudsen.

Knudsen went to work gaining charter school status for what was dubbed PERS or Project Education Residential School. Using the charter authorization as a bargaining chip, he got the Air Force to agree to let the school district occupy the base, buying some of the buildings and leasing others. Looking for a revenue stream for the school, Knudsen—who had created a successful computer-based distance learning program in Montana—stumbled onto a revolutionary idea: Why not use online technology to tap into a market that no one else in public education was serving—the homeschool student? IDEA—for Interior Distance Education of Alaska—was born.

The idea behind IDEA was to entice homeschoolers with a package that included computer equipment, access to instructional resources, assistance from certificated teachers, and guidance from a network of field representatives who are also homeschool parents. Under Alaska's educational funding system, IDEA was able to do that with public funds that are student-based rather than place-based. In other words, Galena could sign up students living anywhere in the state and receive a stipend equaling 80 percent of the basic rate paid for students in their own district. They could grow from a district of 120 students to one of thousands, stretching from the Arctic Circle to the Aleutian Islands.

Chris Reitan, one of the first teachers at PERS and now principal of Galena's K–12 City School, recalls the uncertain expectations that surrounded the launching of IDEA. "The first director of IDEA was based out of Fairbanks, and Carl worked out an agreement with him: He'd start without a salary and if he could attract so many people to the program, then there'd be a [paid] position. I remember they were looking at a couple of hundred people [as the target], but it really mushroomed," says Reitan.

With 3,712 students last year, IDEA served more than 44 percent of all the students who enrolled in distance education programs in Alaska; its closest competitor—Nenana—claimed fewer than 1,200. In addition to the original field office in Fairbanks, IDEA now has satellites in Anchorage, Soldotna, Wasilla, and Juneau. And, there's even an independent international branch that serves 1,000 children of military families in the Pacific Rim under a Department of Defense contract. Tiny Galena has become an educational Goliath.

FILLING A NICHE

In an industrial area of South Fairbanks, rubbing elbows with machine shops and battery outlets, IDEA occupies a sizable dark blue metal–clad warehouse. Entering through the back door, the visitor is greeted by towering stacks of Dell computers and Hewlett Packard copier/printer/fax machines, fresh from the manufacturer and ready to be shipped out to IDEA families. Come in the front door and you'll find a suite of offices and a brightly lit, carpeted resource library crammed with everything from math manipulatives to sample textbooks, games, tapes, and kits designed for unit studies.

Alyssa Rogers picks up a book, studies it, and then reaches for another. She's checking out materials for her six-year-old son, Joseph, whom she teaches in a specially outfitted den in her home at the Ft. Wainwright Army base in Fairbanks. Last year Joseph attended kindergarten at the base school, but Rogers opted to homeschool him this year after spending six months doing research and agonizing over the decision.

"I had been brought up with the thought that you send your kid to school—that was the way it was," she explains. "But I knew he wasn't going to get individualized attention … that if there was something he didn't get, then the teacher couldn't stop the whole class for him to catch up. But with home school, I can customize the instruction.

"IDEA made my decision so much easier," she continues. "They provide resources and encouragement that you can educate your child as well as or better than a public school because you know your child better." IDEA's promotional materials—posted on the Web at www.ideafamilies.org—describe its program as a partnership "offering educational support while honoring parental choice in curricular materials and methodology based upon the needs of each individual child."

In addition to supplying each family with one computer for every four children enrolled, dial-up Internet access, and a multifunction office machine, IDEA also pays the subscription for premium online educational services such as World

Book Online, INET, Lightspan, Enchanted Learning, and the Alaska Career Information System. Most important, the program gives the family an allotment that can be used for curricular materials as well as art, music, and sports lessons. That allotment, from state public school funds, amounts to $1,400 per student for kindergarten through third grade, $1,600 for grades 4–8, and $1,800 for grades 9–12.

The rules are clear, though, on what that money can buy: While parents are free to teach any curricula they want, they're barred from using their allotment for faith-based materials. Rogers centers her lessons on Alpha Omega Christian materials, which she pays for out of her own pocket. She spends her public fund allotment on art supplies and coaching in archery and basketball. Next year she anticipates purchasing secular curricula, continuing on the educational path she's chosen for her son. "I was there for his first step and his first word," she says with fervor. "I want to be there the first time he reads a book."

THE NUMBERS

IDEA 2003–2004 student enrollment: 3,712

ALASKA BENCHMARK TESTS

	% Proficient					
	IDEA Grade 3	Statewide Grade 3	IDEA Grade 6	Statewide Grade 6	IDEA Grade 8	Statewide Grade 8
Reading	72	74	84	70	81	68
Writing	47	59	80	76	82	76
Math	63	73	63	65	61	64

ALASKA HIGH SCHOOL GRADUATION QUALIFYING EXAM

	% Passed	
	IDEA Grade 10	Statewide Grade 10
Reading	82	70
Writing	90	86
Math	67	67

Sources: Galena School District; National Center for Education Statistics

TIGHTENING UP RULES

Growing concern over potential—and real—abuses by distance learning programs prompted Alaska to tighten regulations and funding guidelines in 2004. Galena superintendent Jim Smith, a transplant from Montana who favors jeans and plaid shirts, emphatically states that Galena wasn't in the state's crosshairs when calls came for increased scrutiny.

"On numerous occasions we were told that we weren't the target. We were an example of proper operations," says Smith. "Remember, there are about 10,000 kids out there who are involved in correspondence schooling of some kind and we have 3,700. Our operations are high profile and we've been responsive to any audits, any questions. The regs changed some things but we'll embrace that because they're educationally sound."

Under the new Alaska Department of Education and Early Development rules for "correspondence" or distance education programs, the district must work with the parent to jointly develop an individual learning plan (ILP) for each student. The plan must include ongoing assessment and each student must be monitored by a certificated teacher. Teacher-student or teacher-parent contact is required on at least a monthly basis with quarterly reviews of the student's work or progress in the individual learning plan.

The state also reined in how families could spend their allotments: Reimbursement for family travel, family memberships to sports facilities, paid services to a student by a family member, clothing, pets, and furniture is expressly prohibited. The rules specify that the total amount spent on tutoring or lessons in art, music, and physical education can't exceed 15 percent of the student's allocation, and all expenditures must be tied to the individual learning plan. In addition, a correspondent student must take at least half of his or her coursework in core subjects.

Harry Gamble, the public information officer for Alaska's education department, explains the rules were prompted by "letter-writing by concerned Alaskans, the legislature asking questions, and us taking a look around." Gamble says there were stories of abuses, including private school students enrolling full time in correspondence programs and using their allotments for things like scuba lessons, trips to Disneyland, family gym memberships, and horseback riding.

Gamble notes that while charter schools have governing laws, there aren't similar laws guiding correspondence programs. "These regulations are a compromise between the legislature and the state board," he says. "Those (correspondence) schools have their supporters and detractors, but they obviously meet the needs of some parents. What we try to do is provide the best programs for kids, make sure there's a quality program, and that it's not just a money-making venture for the school districts."

A TEACHER WITHOUT A CLASSROOM

The tightened regulations have made Candi Ahiers's life more difficult. Her phone at the Fairbanks IDEA headquarters has been ringing off the hook: eight calls in the last 90 minutes from parents trying to finalize their ILPs before the deadline. Ahiers, a certificated elementary school teacher and librarian, juggles the needs of 150 children—primarily by telephone and e-mail with an occasional face-to-face office meeting and infrequent home visits. Under the new rules, Ahiers is required to sign off on all 150 individual learning plans.

"The state regulations have increased my job tremendously, paperwork-wise," she sighs. "I don't think they were necessary for our place; we've always been cognizant that the money follows the ILP. But more and more programs have grown up behind us and the state's intent was to standardize things. From that perspective it was a good thing."

Ahiers, a bubbly blonde grandmother, joined IDEA seven years ago. "It was education out-of-the-box big time," she remembers. "It was very exciting, energizing." At the outset, most families selected structured, "boxed" curriculum, all from the same publisher. Today, though, parents use an à la carte approach, and Ahiers is there—if needed—to help them pick and choose materials. The way families structure their instruction is also all over the map: Some do four days a week year-round, while others go five days and take the summers off.

"When we started, we had families that were a hidden population: Some had been in the public education system and some had not," says Ahiers. "They came out of the woodwork and were thrilled to have a solid educational umbrella or foundation. There wasn't a program like ours, so they were doing it all on their own in the kitchen. Now, the families tend to be parents of kindergartners or first graders who've made the choice to begin their education in the home."

A TRIP TO THE NORTH POLE

One of Ahiers's families is the Phillips clan, seven adorable youngsters who could serve as poster children for the homeschool movement. In a log house surrounded by birch trees in North Pole, a town 20 miles from Fairbanks that is permanently in Christmas mode, Betty Phillips takes multitasking to new heights.

She alternates making peanut butter and jelly sandwiches and checking math problems for fifth-grader Stephan and fourth-grader Julie; hustling up art supplies for third-grader Nathan and first-grader Joseph; and occasionally glancing over the shoulder of her ninth-grader, Shasta, who's working on a history assignment at the computer. Rebekah, a seventh-grader who recently won a regional essay contest, plays the piano while five-year-old Victor dips into a basket of plastic animals and practices his lion roars. In the small open-plan kitchen/living/dining room, it's enough to make a visitor's head spin, but Betty Phillips maintains great equanimity.

Phillips is an old-timer when it comes to homeschooling. She started about a decade ago when Shasta was four years old. "I actually made the decision to homeschool before Shasta was born," she confides. "We were living in southern California (where) I went to a high school that was locked-down with iron bars on the windows. I didn't want my kids going to school in that environment."

When Phillips began teaching her oldest daughter, she says the choices were public school or independent study programs where the curriculum was predetermined. "I wanted to pick my own stuff, so I began asking other homeschoolers what they were using," she recalls.

Two or three years into the experience, after she and her husband moved to Alaska, they heard about IDEA. "I was nervous about the program because I wondered will they tell me what to do? Was it legitimate? Where are the funds coming from? Will the state stop funding it after we get started?"

Putting aside those fears, the Phillipses signed up. They simply told IDEA what their children's names and ages were, and were handed an allotment of $750 per semester for each child with the caution that they couldn't spend it on faith-based materials. Now the intake process is considerably more formalized with a teacher or field representative interviewing the family, holding orientation sessions, and proffering forms: They make it clear that IDEA is operated by a public school district and that one parent is required to be home with the child during homeschool hours.

ASSESSING RESULTS

Phillips turns to Ahiers when she stumbles on a roadblock, like grading. "It would be a problem for me if I didn't have someone like Candi to talk to," says Phillips. "My first two girls are such good students, I think everything they do is wonderful. But, at the same time, I know what my kids can do, so they can't fool me: I know when they put their best in (an assignment) or when they didn't care. When we got past elementary school, I asked Candi for advice on grades and she told me there's something called a 'rubric.' She e-mailed me several types of rubrics so I could decide what to use."

In order to make homeschooling work for her seven offspring, Phillips prepares a weekly schedule for each child with everyone concentrating on the same themes. For example, all the Phillips children are studying biology as their science topic this year: while Shasta is dissecting animals with a kit provided by IDEA, Rebekah is putting together a paper skeleton, Julie and Nathan are writing a paragraph incorporating scientific vocabulary, and Stephan is doing a three-paragraph essay with diagrams.

Ahiers points to standardized test results to back up her claim that families like the Phillipses are doing a solid job. Last year, 97 percent of

The Phillips boys show off an art project. (Photo by Rhonda Barton)

IDEA's students turned out for state-mandated tests held at 72 sites. On the Alaska high school graduation exam, 82 percent of IDEA's 10th-graders passed the reading portion, 90 percent passed writing, and 67 percent passed math. On the state's benchmark proficiency tests, sixth- and eighth-graders scored in the 80 percent range in reading and writing and slightly above the 60 percent mark in math; third-graders scored lower, posting a 72 percent in writing, 63 percent in math, and 47 percent in writing. In most cases, IDEA's test results were the same as or better than state averages.

Tim Cline, the director of both IDEA and its international operation, says matching core curricula to state standards is one of his main goals this year. "We're putting a lot of belief in the curriculum guidelines we've put in place for parents; we've started aligning all curricula, including faith-based, to the standards," he notes, adding that IDEA has 200 names on its approved list of educational vendors.

While the district has developed its own series of courses on CD-ROM—called GOLD for Galena On-Line Delivery—it's shied away from offering online instruction that is the hallmark of a true cyberschool. Cline, a former middle school principal and Milken Foundation award winner, scoffs that such instruction "would never be as cheap as ordering from vendors," including what he calls high-quality providers such as the firm K–12 Inc., founded by former Education Secretary William Bennett. Besides, adds Cline, what makes IDEA work is its ability to honor the parent as the primary instructor. "Once we have to prescribe what goes on," he says," we won't be as successful."

IDEA's success has indeed prompted other districts to launch their own correspondence programs—most as online programs—rather than see their students and dollars flow to Galena. Carl Knudsen, now retired in Montana but working on an IDEA network in the Lower 48, admits that the funding issue created "animosity" toward IDEA. At the same time, though, it's forced educators to confront the fact that school is no longer confined to brick-and-mortar buildings.

"The important thing is educators and school administrators have to realize people are going to homeschool anyway. Instead of weeding them out, this brings them back into the fold: It lets them do their own thing in a way where progress is noted," he says.

Students in Galena have benefitted from the district's online venture. (Photos by Paul Apfelbeck)

BACK HOME AGAIN

In Galena, the vocational boarding school that spawned IDEA proudly shows off its aviation, automotive, culinary arts, and cosmetology programs. About 82 teenagers from almost three dozen communities—almost all of whom are Alaska Native—live and go to school here. For some, says Superintendent Smith, the Project Education Residential School offers a chance to pursue a career pathway as well as find a "safe harbor" away from family problems such as alcoholism and poverty.

PERS may have started out as IDEA's raison d'être, but that's no longer true today. The school has been able to attract high-powered corporate sponsors like the Doyon Regional Native Corporation and Frontier Airlines. Meanwhile, IDEA is pumping more and more of its funding back into its own programs. According to Cline, only about 5 percent of IDEA's revenue returns to the Galena School District for administrative support. That 5 percent, though, continues to provide employment to village residents and benefits for children in Galena's elementary and secondary school.

Perhaps the biggest benefit has been the money Galena is able to invest in professional development. The district has embraced Spencer Rogers's "PEAK" model of Performance Excellence for All Kids, which focuses on the content, context, and process of teaching. Both Smith and Principal Reitan credit Rogers and the district's staff development efforts for the fact that Galena achieved adequate yearly progress in all 34 areas of interest for NCLB. Those results—especially notable for rural Alaska Native students—made Galena elementary and junior/senior high "Schools of Choice."

Smith, who replaced the visionary and often controversial Carl Knudsen, says he's not interested in expanding to new frontiers like his predecessor. He'd rather concentrate on "managing the district's affairs in a more accountable fashion." Yet he recognizes that this small community in Interior Alaska has taught the big-city folk an important lesson. "It's easy to become complacent if you have a captive audience," Smith observes. "Whether it's distance learning or the option for students to leave your district, No Child Left Behind has come forward strongly mandating school choice …. You can't be afraid of change. You've got to reach outside your comfort zone." ■


e-school

THE SEARCH FOR FUNDING

The winds of change are sweeping online schools across the K–12 vista —and shaking the foundation of public school funding.

BY DENISE JARRETT WEEKS

The question of funding online schools is all about how you define school. Systems for funding public schools are built around the traditional notion of the brick-and-mortar schoolhouse. Children gather together in one place to study discrete subjects with certified teachers in blocks of time, with students progressing in their learning at more or less the same pace (and those who can't keep apace, drop out).

But a "perfect storm" of circumstances has given rise to the phenomenon of online education. And this new mode of schooling not only dismantles the confines of bricks and mortar—time, space, and pace—it's rattling the foundation on which public school funding is built.

The expanding capabilities of telecommunication technologies have combined with strong movements favoring public school choice, charter schools, and homeschools, along with the stimulus of technology-funding initiatives and the No Child Left Behind Act (NCLB). Responding to these forces, enterprising people in the public and private spheres are developing online education programs to supplement and, in some cases, provide alternatives to traditional schooling.

Across the country, online schools and programs are popping up all over the place. This school year, 41 percent of all K–12 schools will offer some sort of online learning option for students—10 percent more than last year, say market researchers at Quality Education Data Inc. States are grappling with how—even whether—to pay for them with public school funds.

There are a few states with groundbreaking legislation to look to as models, (notably Florida, Minnesota, Ohio, and Pennsylvania) but states are at their most idiosyncratic when it comes to their laws and regulations surrounding public education. To even begin crafting policies and laws that address online education, each state is having to grapple with the bedeviling complexity of its individual statutes.

With its rugged vastness and its penchant for innovative technologies, the Northwest would seem fertile territory for online distance education. And it is. Online K–12 education programs are being readily developed in the region by states, school districts and educational service districts, colleges and universities, and charter schools.

Determining how to fund this new mode of public education involves interpreting different sets of laws governing school funding formulas, homeschools, charter schools, conventional distance education and, in the rare cases where there are actually laws on the books for it, online education. Add to that mix the legal requirements of NCLB, and you have a gathering front—for opportunity or calamity.

BREAKING WITH CONVENTION

For seven years, the federal E-Rate initiative pumped some $8 billion into educational technology nationwide, helping states to create robust telecommunications infrastructures. For the past three years, the NCLB initiative Enhancing Education Through Technology (E2T2) has directed $1.8 billion toward technology infrastructure, professional development,

and online education—Northwest states received about $72.5 million. (However, neither initiative's future is assured. This fall, the federal government temporarily froze $3.28 billion in E-Rate requests from school districts and Congress cut $200 million from the E2T2 program.)

This massive infusion of funding has created desire, willingness, and the capability to use the full power of technology to educate children, even if that means breaking with convention. But while start-up money to launch online education programs often comes from federal and state grants, the search for funding thereafter becomes much less straightforward. Sustained funding models such as those for brick-and-mortar schools are lacking.

Schools and districts typically look to their regular state education funding to pay for online programs. But that can be an iffy proposition if the online program serves students in multiple districts. Generally, education funding is distributed by states to school districts based on the number of full-time students being served in the district. In calculating this, states look at how many hours students are receiving instruction—"seat time"—to determine how many students are participating in school full time. In bureaucratic parlance, this means the number of students who are "full-time equivalent" (FTE).

And this is where things can get tricky for online schools and programs.

Some states have no adequate mechanism for funding anything more or less than 100 percent FTE. Yet, many students who enroll in online courses do so on a part-time basis to supplement their educational program. So, how does the state per-student apportionment for that student get divvied up between the student's home district and the online provider who may well be in another district or even another state? If a student who is enrolled full time in her regular school also enrolls part time in an online program, must the state pay more than 100 percent FTE for that student?

What if a district launches an online school that draws a large number of previously homeschooled students? It's not uncommon that a state's education budget for a fiscal period is finite. Large, unanticipated enrollments of new students into the public school system can draw down that budget, meaning every district would receive less per pupil than it would have otherwise.

Alternatively, some states have systems in which the level of per-pupil funding to school districts is guaranteed, so that a surge in new enrollments in one district doesn't dilute funding to other districts. Nevertheless, if District A suddenly draws a significant number of public school students away from District B, District B is going to feel a sharp pinch in its purse.

All these issues and more have to be addressed as states evaluate whether online programs qualify for funding under existing laws. If not, lawmakers are finding they must roll up their sleeves and start rewriting.

'THIS IS TOO IMPORTANT'

Oregon is in the midst of sorting out its own tangle of questions. Though forward-thinking in its development of a statewide Internet and videoconferencing network, it was still caught off guard by some aspects of the online education phenomenon.

This fall, for example, two school districts in Oregon had hoped to launch online public charter schools, only to find that their innovations overreached the flexibility of the state's charter school law and funding system. The tiny Coquille School District, near the Oregon coast, applied for a charter to open the Coquille, Oregon, Independent Distance Education Academy (COR-IDEA). Based on a model that originated in the sub-Arctic community of Galena, Alaska (see "Crossing the Public School–Homeschool Divide" on Page 6), COR-IDEA would have targeted homeschool families across the state.

Following Alaska's model, COR-IDEA would have given a portion of its per-student funding to parents, who are the instructors, so that they could purchase curricular materials and supplementary services of their choosing. While, at present, this falls far outside Oregon's legal definition of the kind of "comprehensive instructional program" required of public schools, the case of COR-IDEA—which, in fact, is being heard in Marion County Circuit Court—is raising some important questions.

Watching the Coquille situation closely, another online school, Oregon Web Academy, was also poised for a fall launch to serve students statewide. But when its founders saw the clouds gathering over Coquille, they sought the aegis of the North Clackamas School District, renaming their program Clackamas Web Academy and reshaping it as a more conventional alternative program for district students only.

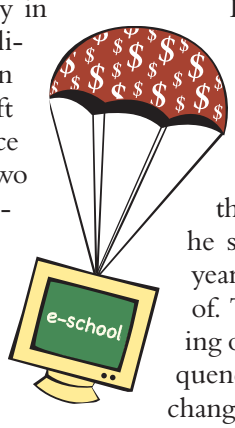
Oregon's funding formula was "built on a set of assumptions that was true even 10 years ago," says Randy Harnisch, who is the Oregon Department of Education's executive officer to the State Board of Education. "The world is very different today." There are parts of the funding system that are

"The unintended consequence of passing new laws, such as those that increase school choice, is that there is always one more thing to think through."

"anachronistic," he says, "just not quite right if you're looking at some of these technological methods of delivering instruction.

"It's one of those things that sounds like we should've taken care of a long time ago, but every time you turn around, there's another issue that complicates the question," he says.

To help sort through it all, Oregon hired the Education Commission of the States, a policy research agency in Denver, to examine which of the state's education policies and practices are helping or hindering innovation in e-learning. In October, the commission gave a draft of its policy brief, "PK–20 Virtual e-Learning/Distance Education," to the state board of education. In just two years, the report said, Oregon has moved to the leading edge of online distance education, but much remains to be done.



"This is one of those areas that would be really easy to screw up. And you could do that by being too aggressive or you could do that by being completely head-in-the-sand," Harnisch says. "This is too important to get wrong. It's coming whether we like it or not—and we *like* it—so we want to do the absolute best possible thinking in advance so that when we get to the point of making some policy-level decisions, we'll be comfortable that we're making the right ones."

SPIKING ENROLLMENTS

Idaho is one of the few states that has amended its charter school law to include online delivery of instruction. In 2002, the Idaho Virtual Academy was launched as a K–5 public charter school, enrolling 1,000 students from around the state (www.idahova.org). In 2003, the school expanded to grades K–7, and enrollment in the charter school nearly doubled to 1,900 students.

In January 2004, Idaho State Superintendent Marilyn Howard warned the state legislature that Idaho's student enrollment was surging. The state's total student enrollment for that school year had increased by 3,500 from the year before.

"Roughly half of this is due to anticipated growth in charter schools, including Idaho Virtual Academy …." she told them. And it appeared that many, if not most, of the students enrolling in the Idaho Virtual Academy were previously homeschooled. She worried that budget estimates were going to fall short. Even so, Howard said she is in favor of welcoming homeschool students into the public school realm.

"Even if these students were previously homeschooled, they have just as much right to attend a public school—charter or regular—at state expense as any other student has," she said. "I'm simply noting that bringing these students into the public system has a cost to it …."

(This school year, the Idaho Virtual Academy expanded again, serving grades K–8, though enrollment dropped somewhat, to 1,800 students.)

Idaho law allows students to enroll in more than one public school, but as online charter schools emerged, students began enrolling in more than one *district.* That raised the inevitable quandary: Which school district gets the FTE per-student funding? As it now stands, schools and programs must negotiate between themselves how to divide up the FTE funding for those students who are dually enrolled. Tim Hill, chief of finance for the Idaho Department of Education, thinks it's likely that legislators will be asked to provide more clarity on this issue at the next legislative session in January.

"The unintended consequence of passing new laws, such as those that increase school choice, is that there is always one more thing to think through," he says. "Sometimes you have to go through that first year of a new law to see what still needs to be taken care of. The state legislature has been very good about revising or writing new laws to deal with unanticipated consequences. We're doing pretty well at making the necessary changes as we go."

Authority over charter schools in Idaho has shifted sharply away from school districts. Last spring, the legislature created the Idaho Charter School Commission to authorize and oversee charter schools, previously the province of school districts. And the Idaho State Board of Education ruled that charter schools could apply to the commission to become their own local education agency (LEA), meaning, in part, that federal funds can be sent directly to the charter school rather than having to pass through a sponsoring school district.

MARKET DRIVES

Alaska vigorously supports parental choice within the public school system. Since 1939, it has operated a public correspondence school. In 1995, it was among the first states to pass a charter school law, and in 1997 it passed legislation creating an exemption from the state's Compulsory School Attendance Act that allowed for homeschooling. Instructional philosophy and method, as well as curricular choices, are left entirely up to the homeschooling parents.

Enterprising public school districts began launching statewide correspondence schools to serve this growing market of homeschooled students. They commonly passed on a portion of state per-student funding to parents so that they could purchase curricular materials and other instructional supplies. As competition for this segment of students heated up, districts began offering alluring extracurricular courses in such things as private scuba diving lessons, whole-family memberships in health clubs, and family trips to the nation's capital. Families happily signed up, all at the state's expense. But parents and educators at brick-and-mortar schools complained that that was unfair. Public school students should have equal access to the same learning opportunities, they said.

The Alaska State Board of Education agreed and, last summer, led by Chairman Rich Mauer, it amended the regulations

governing correspondence schools. The new rules institute accountability measures and clarify how Alaska's correspondence schools and parents can spend state school funds.

"We found what we felt was a good middle ground where we could stop or abate the misuses and yet still provide the programs, allow those parents the opportunity for choice within the public education system," says Mauer.

SEPARATION OF HOME AND STATE

Montana also strongly supports school choice, but some are deeply ambivalent about blurring the line between public schools and homeschools. Last summer when a proposal was put together by a university professor and a couple of legislators to develop an online distance education program that would serve both homeschool and public school students across the state, it raised some eyebrows.

Claudette Morton, executive director of the Montana Small Schools Alliance and an influential proponent of educational technology, had mixed feelings about the initial proposal. "We didn't feel that any money, based on our constitution, should be going toward homeschooling directly," she says.

Granted, she says, Montana allows homeschool students to supplement their homeschool program by taking courses at brick-and-mortar public schools. Providing they take a minimum of two courses at a time, the state will direct partial FTE funding to the school district for each of those students, she says.

But the idea of the state creating and funding an online program that would serve homeschool students *in their homes* wasn't a road Morton and like-minded educators in the state wanted to go down. That's because Montana has no way to supervise them, test them, or determine the quality of the instruction, she says. Parents simply tell the county superintendent that they are homeschooling their children, "and that's it," she says.

"When we've tried to amend [the homeschool law], we've had a thousand people up at the legislature with all the kids in nice, fluffy dresses and neckties and so forth saying, 'We don't want any state oversight,'" Morton says with a laugh. And when county superintendents have tried to visit some of the homeschools to check on the quality of the programs, she says only half-jokingly, "They were met with shotguns at the gate."

> "We'd be remiss in not making online learning a vital part of our system. We have to do that."

Last summer, Montana's governor at the time, Judy Martz, directed about $250,000 in federal money to the University of Montana in Missoula to create the Montana K12 Online Distance Learning Initiative. This school year, the university is piloting the program in which certified K–12 teachers teach courses that are available for dual high school and college credit. In the end, after hearing input from Montana's Office of Public Instruction and people like Morton, the dean of education at the university, Paul Rowland, crafted a plan that limited the program to students who are already in the public school system. (See "Moving Ahead With Distance Education in Montana" on Page 20.)

Says Morton, "Public education is very clearly spelled out in our constitution, and it doesn't say that any money goes to homeschools."

TESTING AND MAKING 'AYP'

Alaska's homeschooling families can be as fiercely independent as those in Montana. For many homeschooling families, Alaska represents freedom from overregulation and government interference. To them, it is not a contradiction to expect the state to be hands-off while handing over public funding to pay for homeschooling. And many can't or don't want to make sure their children travel to a testing site once or twice a year to take the standardized achievement tests that are required of public school students.

"We're certainly not trying to interfere [in] those home programs," says Harry Gamble of the state's department of education. "The Alaska legislature has spoken on that one and has said that that's a valid option for parents, and we believe that. But once they step across and enroll in a public school, whether that's a brick-and-mortar or one of these correspondence programs, then they are subject to the [same] kinds of rules and regulations that public school students are subject to, including testing.

"It's a distinction that's hard to make."

And in this NCLB era in which schools are required to show "adequate yearly progress" (AYP), it's important that all students take the standardized tests. A minimum of 95 percent of a school's students must participate in testing or the school automatically fails to meet AYP.

"Delta Cyber School did not make AYP, not for test results but because they didn't have 95 percent in testing," says Board Chairman Rich Mauer, who lives in the Delta/Greely School District, which launched one of Alaska's first statewide online schools (www.dcs.k12.ak.us). The students who did take the tests performed very well, he says, but, in the end, that didn't matter when it came to receiving the dreaded label of not having made AYP.

"I would love to see us go to online testing as much as possible," he says.

Idaho and Oregon have online testing systems in place. It not only facilitates testing, it can also ease resistance to online instruction, says Oregon's Randy Harnisch.

"The fact that we have online testing is very significant," he says. "It kind of primes us for accepting an online instructional program, given the fact that we are … implementing very successfully an online assessment system. It's kind of like: 'We've done that. It's working. There have been problems, but we've fixed them. OK, we can do this, too.'"

WHO GETS THE FUNDING—WHO GETS THE "DING"?

In last November's election, Washington voters rejected charter school legislation for the third time in a decade, so all public online K–12 programs must be sponsored by a school district. (Although some colleges and universities offer dual-credit online courses to public high school students.)

While the state's K–20 Educational Telecommunications Network links every school district to high-speed Internet and videoconferencing, and the newly minted Digital Learning Commons (www.learningcommons.org) is being piloted as a portal to online learning options, policymaking is lagging behind the advanced technology infrastructure. At present, Washington doesn't have statewide policies regulating online education programs. Some districts use the State Office of the Superintendent of Public Instruction's criteria for providing "alternative learning experiences" to help guide their development of online programs, says David Walddon, who oversees the K–20 Network for the state (www.dis.wa.gov/K20/).

Rules addressing "alternative learning experiences" allow a student to receive instruction outside the traditional classroom setting, but beyond that, the criteria break down when applied to online programs. The criteria require each student to have an individual learning plan, and a teacher to manage the plan, including meeting face to face with the student at least weekly, says Martin Mueller, director of learning and teaching support for the Washington Office of the Superintendent of Public Instruction.

The criteria don't clarify how state apportionment funds should be distributed when a student is enrolled in multiple districts. "No one really wants to give up the money for the FTE," observes Walddon, adding, "and what about accountability?" For example, if a student who's enrolled in his local district takes math courses from an online program in another district, then does poorly on the math portions of standardized tests, which school district should be responsible? By law, the school district in which the student lives is accountable for that student's learning. But should that student's low test score count against his local school or the online program when it comes to federal reporting of AYP? "Who should get the ding?" asks Walddon.

In 2002, former Governor Gary Locke appointed a task force to help the state become "a magnet of innovation in digital learning." The group reported its findings in the "Washington State Digital Education Initiative Task Force Report" and urged the state to develop a policy allowing students to transfer their state funding apportionment to online providers of accredited courses (www.governor.wa.gov/econo/report.pdf).

"Funding for the costs of student enrollment in courses was one of the harder issues that the task force addressed," the group reported. "After lengthy discussion, the task force was of the unanimous opinion that the student's interests should prevail … districts should be obligated to pay the provider of the online course, up to the amount of the state apportionment."

In last spring's legislative session, the state legislature took up the matter and directed the Joint Legislative Audit and Review Committee to review policies addressing "alternative learning experiences" and to study what additional policies are needed to address online learning, says Mueller. The committee is expected to recommend to the legislature in June 2005 what the state's role in online learning should be.

"The Digital Learning Commons and the Digital Education Initiative got ahead of the funding model," says Mueller. "Now we've got to get caught up to the reality in the schools."

THOUGHTFUL MANNER

Not long ago, the prospect of introducing online schools into public education stirred a *Jurassic Park* kind of response in educators, says Martin Mueller: "The fact that you can do it, doesn't mean that you should do it." Like the dinosaurs' destruction of paradise in Michael Crichton's novel, would this technological advance bring ruin to the education environment, some wondered.

"We're past that now," he says. "We are moving into an era in which education practitioners have thought about educational technology and how to get kids the knowledge and skills that they need with the help of technology. We'd be remiss in not making online learning a vital part of our system. We have to do that. There isn't any choice, but we need to be thoughtful about it, too."

Walddon agrees. "This needs to succeed. This is clearly, clearly the way education is going. It's going to reach populations that we haven't been able to successfully reach before, but it has to be done in a thoughtful manner or it will fail drastically." ■

Editor's note: Bracken Reed and Rhonda Barton contributed to this article.

Web exclusives:

Minding the Gap: State Cybersolutions to NCLB Mandates
Money Matters
Additional Reading and Web Sites
Reports From the Frontlines of Online Ed

GALLERY

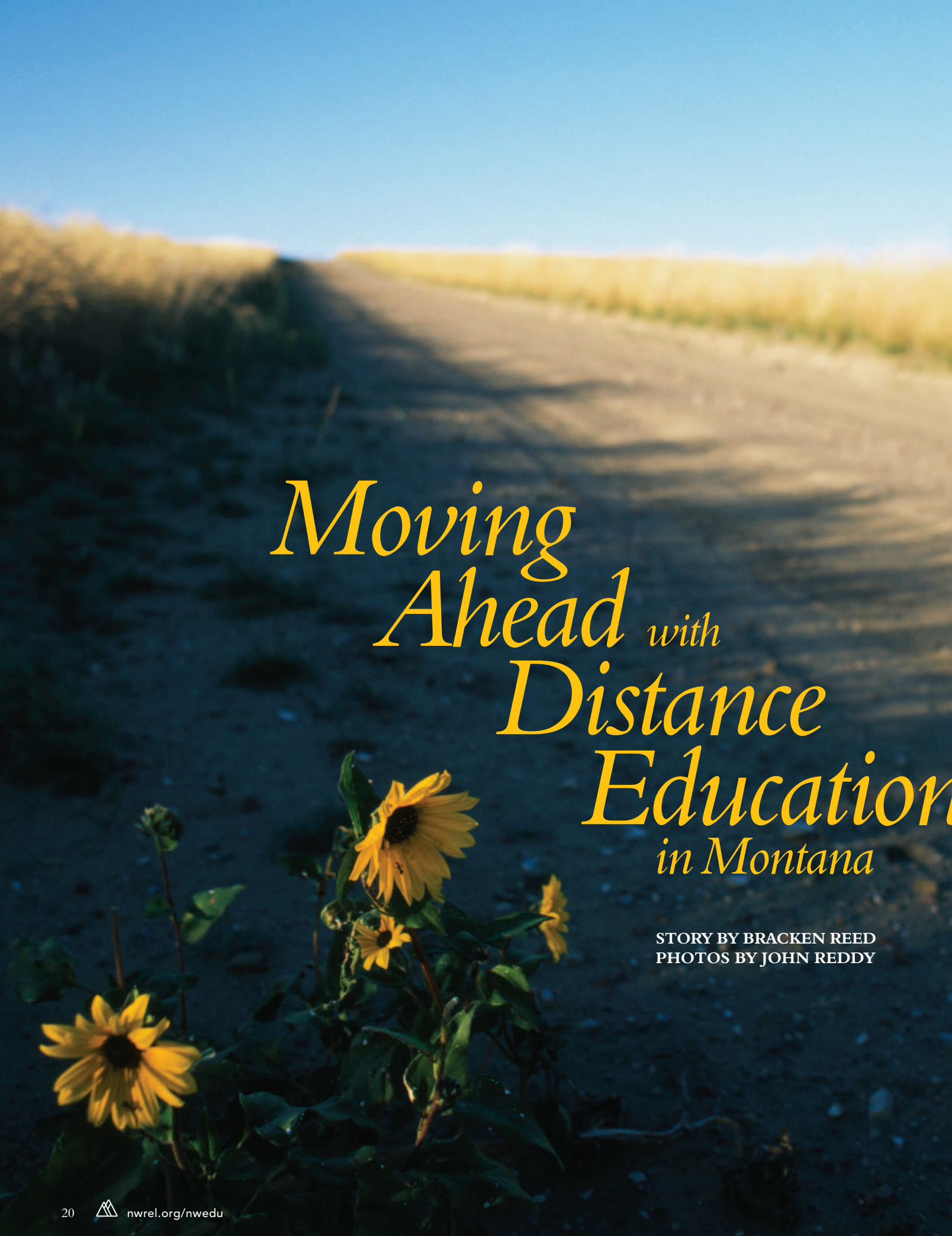
From Virtual to Vista

These scenic photos were taken by Washington students, and they are vivid evidence of the reach of online learning. The student photographers were enrolled in an online photography course through the Federal Way Internet Academy when they took these shots from far-flung hometowns and vacation spots.

Learning from the same veteran teacher and artist, who taught the online course from a small business park in Federal Way, these students mastered the rudiments of camera mechanics and photo composition. Their teacher, Lowell Schaefer, taught for 25 years in a conventional classroom at Seattle's Thomas Jefferson High School before trying his hand at online teaching. He was won over by the intimacy of one-to-one computing. Schaefer and a former student share their thoughts about online teaching and learning in the story, "Long-Distance Relationships" on Page 28.

"What I have found is that working with students on the Internet I actually get to know them better, in many cases, and get to know more of them in a more personal way than I ever did in the regular classroom."
—Lowell Schaefer

Photo credits, clockwise, for Federal Way Internet Academy students: Matt, Alexis, Matt, Jonathan, and Karen



Moving Ahead with Distance Education in Montana

STORY BY BRACKEN REED
PHOTOS BY JOHN REDDY

FAIRFIELD, Montana—It's not what you would expect.

It's late September. You turn off Highway 200 and head northwest on U.S. 89. The two-lane road runs through grain fields—barley cut to blonde stubble, and rolls of alfalfa left sitting in the fields like random, ice-age boulders. On this flat, treeless benchland you can see the town miles before you reach it: a clump of windbreak trees, a water tower. You can imagine its wide, dusty streets, the tidy, modest houses, the rail line passing below grain silos whose corrugated metal you can just make out, glinting in the sun on this blue-sky afternoon.

Ten miles out, you pass a day-care center run out of a manufactured home. Four small girls bounce wildly on a trampoline in the shade of a giant cottonwood, its bright yellow leaves falling around them. Small-town life. The stark beauty of autumn in the Big Sky grain country of north central Montana. A man in a cowboy hat passes in a white diesel pickup and lifts two fingers from the steering wheel in ritual salute, a gesture as natural as wind over wheat. This is all as you might expect it to be.

But rounding a curve, you crest a small rise, and suddenly the town is laid out before you. The Harvest Hills Golf Course sprawls to the left, as flat and false-green as a pool table. Ahead on the right, a scraggly game farm sits back from the road—a few camels, some tired-looking elk, a llama, possibly, lurking in the shadows of a muddy barn.

A golf course in a farm town with less than a thousand people? Camels? It's a strange sight. Before you can make sense of it all, you're into Fairfield proper where suddenly things look familiar again. Here are the false-front buildings, the wide streets, the Cozy Corner Cafe, the Servicemen's Club at the VFW Post 4109 ("public welcome"). Here, too, are the Busch Agricultural Resources, the Treasure State Seed Company, the Faith Bible Church, and a Sinclair station with a convenience store called, "The Store."

At the east end of the main street, next to the water tower, stands the brown brick schoolhouse. Elementary, junior high, and high school all run out of one campus—the modern version of the one-room schoolhouse. Behind the school the grain fields spread to the eastern horizon.

CHANGING WITH THE TIMES

Fairfield is not the stereotypical isolated, rural outpost you might have imagined. Neither as unpredictable as a Montana camel, nor as typical as a Cozy Corner Cafe, it is, instead, a traditional farming town finding its way in the modern world. To survive, it has had to adapt and diversify.

Although it still relies heavily on the agricultural market for its malting barley, which is primarily bought by Anheuser Busch, Fairfield also has one foot in the world of high technology. One of its largest employers is Three Rivers Communications, which started as a small telephone cooperative but now provides cell phone, Internet, digital TV, and regular telephone service to a large area.

"Many [public school employees] are afraid that any change will upset the system that they work in, and they are right in that respect. It will force them to change the way they do business, and there is nothing more frightening to people than change."

Beneath its farm-town surface, Fairfield is a fully connected community that is not afraid of change. It's not surprising, then, that Fairfield High School was one of the first schools in Montana to sign up for a new, statewide distance education program.

A VISION AND A PLAN

The story of how the Montana K–12 Online Distance Learning Initiative came into being, however, is another case of overturned expectations. While several states have created centralized, statewide distance learning programs, few of them are run entirely out of a university, with little or no involvement by the state department of education.

John Lundt, a professor in the School of Education at the University of Montana, in Missoula, is the primary architect of Montana K–12 Online. A self-described "educational futurist" and "political conservative," Lundt is the co-author of a book called *Leaving School: Finding Education* (Matanzas Press, 2004), which argues for radical changes to the current public education system. A one-time public school teacher and principal himself, Lundt is not afraid of controversy.

In person, he is an articulate and forceful speaker, with a passionate temperament that burns just under the surface. He has the slightly impatient air of someone who believes he has found important answers and is irritated that others cannot immediately see the wisdom of his plan. His conversation is peppered with potentially explosive comments, such as "No Child Left Behind reminds me very much of Lyndon Johnson's Great Society, in that it was built on a fallacy," and "Public education has been in pretty much of a free fall for the last 50 years."

Lundt is a polarizing figure within Montana's education system, with ideas for the future of public education that are compelling to some and appalling to others. Chief among those ideas is the use of online learning to meet the needs of cash-strapped schools and districts, while simultaneously addressing issues such as the need for highly qualified teachers, and the need to individualize instruction.

Among those who have found his ideas compelling are a small group of conservative legislators and political activists, most prominent among them, Republican State Senator Rick Laible from the Bitteroot Valley, just south of Missoula, and U of M law professor Rob Natelson, whose conservative political views are well known in the state.

According to Lundt, Senator Laible read his book, which also advocates homeschooling in some cases, and approached him with questions about creating a statewide distance education program. Around this same time, in June of 2003, the state was the recipient of $73 million as part of President Bush's federal economic stimulus package.

Judy Martz, the Republican governor at the time, at first declined to spend the portion of this federal windfall that was not expressly designated for tax cuts and emergency forest fire relief. Eventually she was swayed by public opinion and parceled out the remaining funds. At a news conference in November of that year, Martz asked that a $250,000 grant be directed toward expanding distance-learning programs in the state. She was reported as saying, "I think these dollars would be best served in a program for our K–12 students. The money can be used for instruction where it's most needed, for rural and isolated students."

How this grant came to be awarded to the University of Montana is a matter of some controversy. According to Claudette Morton, executive director of the Montana Small Schools Alliance, "several of us in public education were quite taken aback. We were quite surprised, in fact, that it was the U of M that would get the pilot because of their 'outstanding program,' because we all said, 'Gee, we hadn't heard much about the program.'"

Some people were uneasy about the deal being struck outside of a competitive grant process that would take into account an applicant's proven track record in online learning. Several universities, not including the U of M, had been the recipients of federal Preparing Tomorrow's Teachers to Use Technology (PT3) grants, and had already done significant work in online learning, for instance.

According to Morton, a longtime proponent of distance education in Montana, this only scratches the surface of the many successful distance education programs that already existed in the state prior to the grant. These projects range from small schools or districts that share expert teachers via Web or video technology, to the Advanced Placement courses that Montana's Office of Public Instruction provides to approximately 80 schools. Such programs are the result of years of hard work by many organizations, schools, districts, and OPI employees, says Morton. For her, and many others in the state, the grant was an opportunity for the governor's office and the legislature to finally recognize and support these efforts. "It seems a shame that the governor's office chose not to build on the work of these ongoing programs," she says.

For many in the state, awarding the $250,000 grant to a single institution was also a point of contention. As Michael Hall, instructional technology coordinator for OPI and a major contributor to the development of the state's distance education standards observes, "In Montana the focus has always been on local control. Typically, it has been districts that have taken on the issue of distance learning and made it work."

That the grant would fund a program to be overseen by a university professor with outspoken views on the failure of public education was even more troubling to some.

Lance Melton, executive director of the Montana School Boards Association (MTSBA), puts it plainly. "I take issue," he says, "with the fact that our [former] governor dedicated sorely needed public funds to the direct control of an individual whose goal is to destroy public education as we know it."

But Lundt says, "I have a reputation for getting things done, and that is what they needed with this rather than having it get lost in the quagmire of committee and compromise." Yet, as it turned out, holding meetings and reaching a compromise were some of the first things Lundt had to do. With the help of Senator Laible, Lundt was able to address the concerns of those in public education, at least in the short term.

Among those concerns were that some of the grant money might be used to provide services to homeschooled students, that uncertified teachers might be hired, and that courses might be developed without oversight from either the OPI or the Montana State Board of Public Education to ensure that they met Montana Student Content Standards.

According to Lundt, these concerns were misplaced. "It was never my intent to use uncertified teachers" he says, "and serving homeschool students through their home district was always part of the plan. All courses are aligned with state standards and have the exact same content as the courses presented in schools."

For Lundt, the controversy is less about the specifics of the K–12 Online program and more about the fear of change and a public school establishment that does not want competition. "Many [public school employees] are afraid that any change will upset the system that they work in, and they are right in that respect," he says. "It will force them to change the way they do business, and there is nothing more frightening to people than change."

While Lundt's comments back up his own admission that he is "not much of a politician," and "doesn't have those tactful diplomatic skills," he has also lived up to his reputation as a hard-driving administrator who gets things done.

Within two months of officially being awarded the grant, the Montana K–12 Online program had already chosen its software program, called Blackboard, and completed a statewide assessment of the need for online classes. By spring 2004, planners had selected which courses would be offered, based on that needs assessment, and had started recruiting teachers. Before the school year was out they had also selected which schools would be participating, based on need, and most students had already signed up for fall classes.

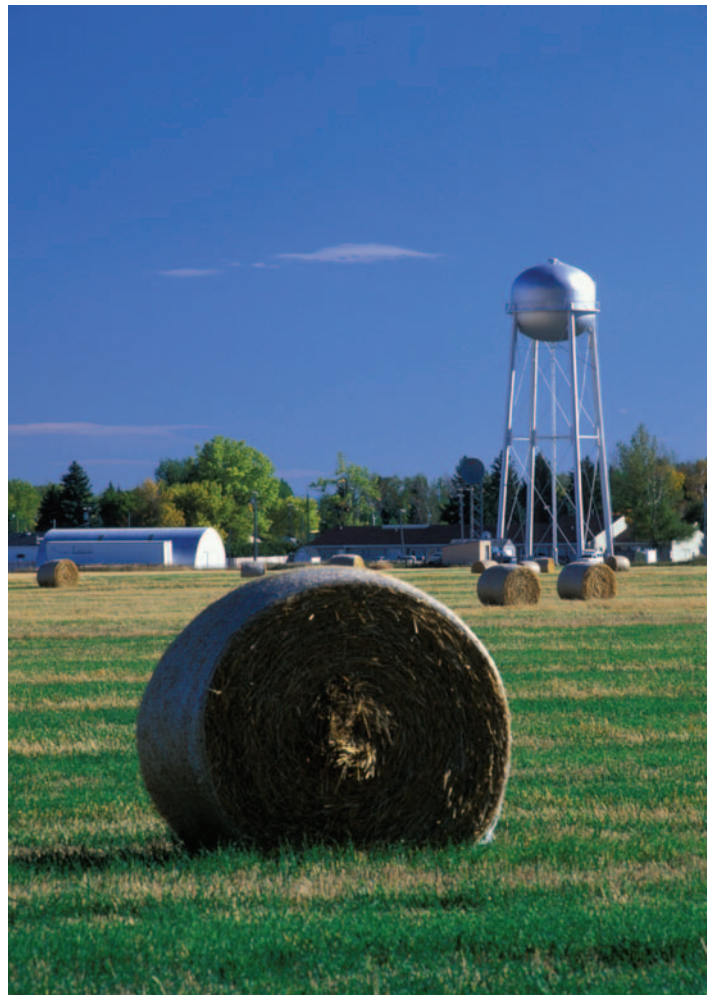
The process, says Lundt, was thorough and devoid of politics. "We looked at the courses that would give us the greatest amount of enrollment," he says, "based on the greatest need as expressed in the survey, and then we picked the top 13 courses, which is the number we had determined we could afford [to offer]."

Teacher hires were similarly handled. "We advertised, and we also received nominations from administrators around the state," says Lundt. "We went through an elaborate hiring process: We did online interviews, phone interviews, talked to their references, and hired 13 excellent people."

That summer, the teachers were given three full weeks of face-to-face training in the use of the Blackboard system and the elements of effective online teaching. By this fall, less than a year after the grant was first awarded, students were participating in online classes. Among that first crop of students were several from Fairfield High School.

FEELING THE SQUEEZE

When former Governor Martz first awarded the pilot grant for Montana K–12 Online, she mentioned the specific needs



of rural and isolated areas, as well as the need for highly qualified teachers as required by the No Child Left Behind Act. What she did not mention was the woeful condition of educational funding in the state. Both Lundt and Morton agree that the OPI simply did not have the people or resources to support a statewide distance education program.

Lundt points to a recent lawsuit brought against the state, in which school boards hired a consultant to examine the funding of public education in Montana. The outcome of this study was a call for a $350 million infusion of funds into the system. Lundt is far from alone in his observation that that infusion "isn't going to happen," although the Montana Supreme Court has ruled in favor of those who brought the suit, which included both the MTSBA and the MREA.

While this ruling may eventually bring some relief, it's clear that Montana's public education system is in the middle of a severe financial crisis. And no one has been hit harder than rural schools.

Fairfield High School Principal Les Meyer is all too familiar with the scenario. In the past school year, the Fairfield district lost both a math teacher and a principal, neither of whom have been replaced due to budgetary constraints. In fact, Meyer is now the principal for grades 6–12, while the district superintendent, Mark Anderson, covers grades K–5.

At the same time, the high school saw an increase in enrollment. With a total of about 175 in grades 9–12, the district, which also absorbs junior and senior high students from the feeder schools in two nearby communities, has been stretched to the breaking point. "We were looking at larger classes," says Meyer, "and in some cases, it was even a matter of, where are these students going to go?"

When the school heard about the Montana K–12 Online program, they jumped at the opportunity to participate. "It really helped relieve some of the pressure of the schedule," says Meyer. "I don't know what we would have done without it."

A LEARNING CURVE

The 13 courses eventually offered to students range from an advanced U.S. History class to an elementary science class to geometry, Spanish, French, and U.S. government. Each class accepts a maximum of 20 students, and most are either at or just below maximum capacity.

When the school heard about the Montana K–12 Online program, they jumped at the opportunity to participate. "It really helped relieve some of the pressure of the schedule," says Meyer. "I don't know what we would have done without it."

At Fairfield, nine juniors and seniors are currently taking an online creative writing class, which the school would otherwise have been unable to offer. The course had a few snags at first, says Fairfield's academic counselor, Cindy Luoma.

"The main problem for us is that they didn't start the class until September fifteenth," she says, "while we started school in the middle of August. That meant that we had to figure out something for them to do for a few weeks."

Principal Meyer, a former English teacher, stepped in ably, teaching the class face-to-face for the first several weeks, but the transition from that format to an online format was a bit shaky for some students. Brian, a senior who also serves as the school's assistant computer technician, admits that he preferred the face-to-face approach, even though he is extremely comfortable with computers and the Internet.

"It was just a lot different," he says. "It was hard to get used to the online format at first. I didn't really understand what was expected of us."

Despite some reservations, Brian and his fellow creative writing students all expressed a willingness to take more online classes. As another student, Vince, put it, "The flexibility is great. You can do your work during the study hour or you can do it at home, if you've got other things going on. I would definitely take another online class."

TURF WARS

Whether those online classes will continue to be offered through the University of Montana is difficult to say. Legislators will determine the fate of the program in their January 2005 session, and some people are still unhappy with a university-run program. Melton says the university has no state constitutional authority to operate such a program. Only local, elected trustees may have supervision and control over K–12 public education, he says.

In fact, the Montana School Boards Association has already been working with the Montana Rural Education Association to create a competing proposal. Their program would use both VisionNet (a consortium of telephone cooperatives that provides a statewide videoconferencing network) and Blackboard courseware to provide distance education courses to all participating districts.

The program, called the Montana Schools E-Learning Consortium, focuses on local control, with each district paying a flat fee of $4,000 to join. The program's backers estimate the need for approximately $200,000 to cover start-up costs, but according to the MTSBA's Melton, "It's already in full swing, with 36 participating districts, representing 52,000 students" signed up to participate in fall 2005. (The Montana Schools E-Learning Consortium Web site is at www.mtsba.org/dlprogram.)

As Lundt puts it, "There's a turf war going on in Montana" over the future of distance learning in the state. Lundt finds the current struggles less important than the continuation of online learning, no matter who is running it.

"There are more reports on the failure of public education than would fit in this room," he says, from his university office. "There is certainly a need for change."

Whether the Montana K–12 Online pilot program receives continued funding or not, it's clear that Lundt will continue to work toward realizing his vision of change, and online learning will continue to be a central part of that vision.

When asked what the future might hold for Montana's public schools, Lundt says, "I think that the local school will survive simply as a community learning opportunity, and it will always be here in some form. But it will not be in the form of a factory model that we have been so used to in the twentieth century. It will be more like it was prior to that time, in which learning had a variety of options. School was one of them, but it was not the only one."

LOOKING AHEAD

As the Fairfield creative writing students gather for a photograph in the bright glare of the afternoon sun, it's impossible to look at their fresh faces and polite, shy demeanor and not think of the future that lies ahead for them.

"Nobody ever wants to stay in farming, if that's what you're asking," the counselor, Luoma, had said earlier in the day, when asked about the average student's plans.

As they stand in a field of barley stubble in the middle of the Fairfield Bench, the beauty of Big Sky country stretching into the distance in every direction, you wonder. They may not want to farm, they may want to wade out into the depths of the larger world, but it's hard to believe that some of them won't long for home. Whatever the future holds for online public education in Montana, whatever the future holds for these teenagers standing in a field on a glorious autumn day, there's one thing we can probably all count on: It won't be what we expected. ■

Letterature

BY BRIAN DOYLE

Digital connections can kindle uncommon relationships among kids, teachers, and the wider world. Yet, as important as these cyber-relationships can be, essayist Brian Doyle reminds us of the joys of exchanging letters through the post, those "papery handshakes" that endure across time and space.

To write or read a personal letter is to connect with someone you love or respect; it is affection and care parsed into words on the page; it is a papery handshake drawn with ink and sealed with the tongue of a friend. A letter arrives in the mailbox, where it waits decorously and silently for your hand to pull it forth. You sit, open it eagerly, read it with delight or despair, read it again, file it away, find it years later, read it a third time, treasure its yellowing ancient papery emotional power, history, preserved time. Rarely is a personal letter thrown away. They are uniformly saved, I suspect: in desk drawers, shoe boxes, between the pages of a book.

It is fashionable in these times to bemoan and bewail the Death of the Letter—killed, with the accompaniment of a braying laugh track, by television, video, and computers. But is this so? Just how many letters *are* written these days?

"Somewhere between 50 and 60 million 'real' letters are mailed in America every day," says U.S. Postal Service spokesman Lou Eberhardt. "Total United States mail is about 600 million pieces a day. On the whole planet there are approximately a billion and a half letters in daily circulation."

By Eberhardt's professional guess, then, about one in five Americans is sending or receiving an honest-to-God letter today. Not a bill, not a request, not a sale notice, but a real, live letter, with a salutation and a signature, with news, anecdotes, anniversary greetings, perhaps even a photograph of little Elwin covered with his birthday cake.

Every Wednesday for the past year I have appeared in a nearby third-grade class to talk about Writing and Editing and Letters and Stories. I gave many small amusing speeches about letters. Nearly every Wednesday a moppet would approach me and ask, in a small voice, "But what can I write a letter *about?*"

Here is what I wanted to tell those children:

Write about the vagaries of health and wealth, travel plans, anecdotes, tall tales, books read and movies seen, the odd and poignant behavior of parents, pets, and neighbors; quirks of the weather, tales of the city, the exuberance of birds, the waltzing of insects, the manner in which late afternoon sunlight stacks itself in golden bars on the rug, the stinging shout-note of a trumpet, the gravel-moan of a saxophone, the wisdom of water, the extraordinary dinner you had Tuesday, how Aunt Trudy successfully dealt with the problem of bats in the belfry, starlings in the eaves, death in the afternoon.

Anything. Everything. Letters, as tiny cries from the heart, are small cars in which both clowns and kings fit. Letters also bring the world to the door, hat in hand, polite and agreeable. I travel through the mails, keep in touch with various and sundry communities, feel tremors in the strings that connect me to the world. So many connections, worlds, circles of friends and family, work and play, past and present. The web woven by letters is dense and has a power far beyond its ingredients: ink, paper, a gummed stamp. Isn't the power and pleasure of a letter like that of love, in which the opening is thrilling, the process a labor of pleasure, and the memory savored long afterward?

A small child is still tugging at my pants-leg. "But what can I write *about?*" she asks.

What I write about:

How I always got a haircut after breaking up with a girlfriend. How my mother went back in the house for her forgotten gloves and returned to the porch to find my brother, one year old, suddenly dead in his stroller. How I once fouled out of a basketball game

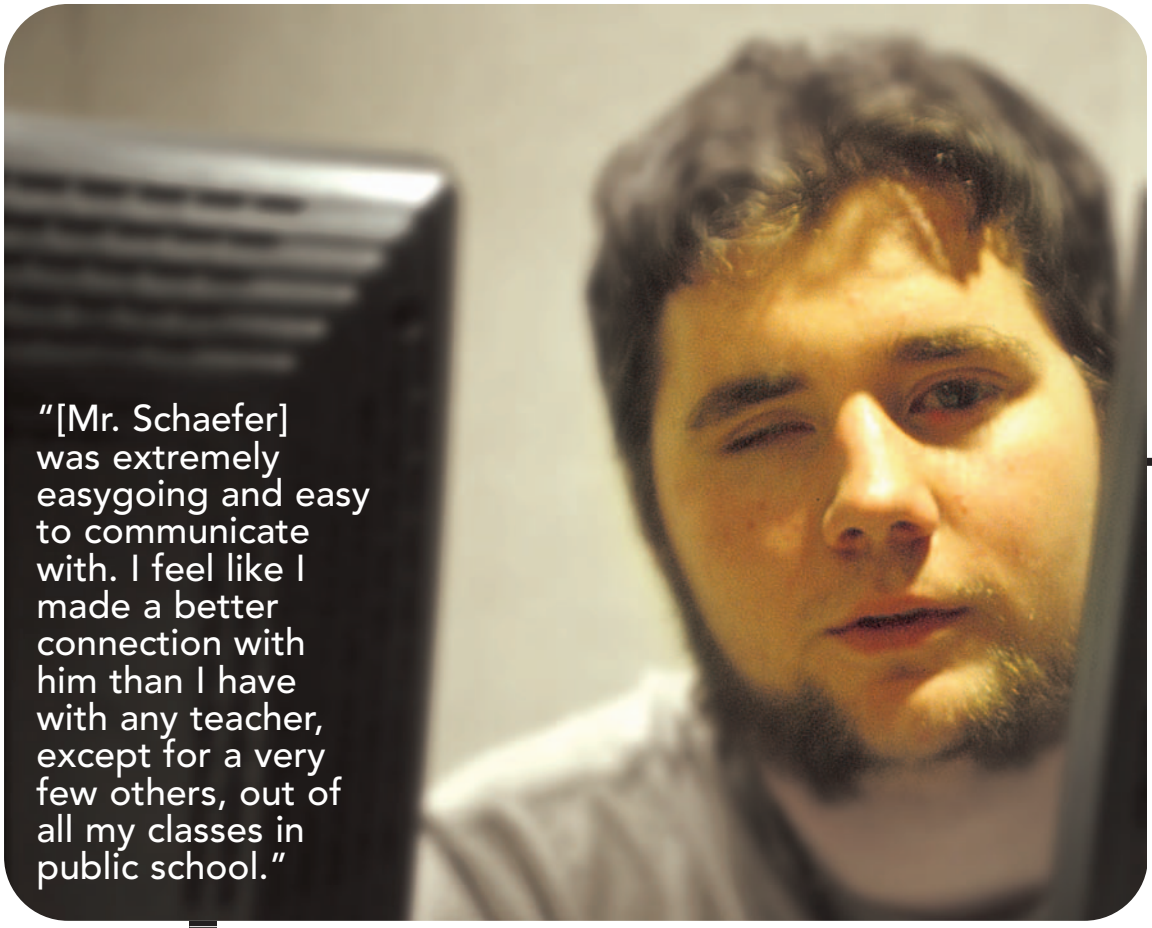
before halftime and walked two miles home in the snow, furious and ashamed. How I saw angels in the attic as a boy, their wings huge and muscular, their faces empty and terrible. How my father, lanky and young and in a war, wrote poems to my mother in the thick dusk of the Philippines. How my grandmother held her dead husband's name in her mouth for an extra second when she mentioned him. How my daughter gracefully holds out her left hand, palm up, greeting the water, when I carry her to the sea.

"Every letter written," said a medieval abbot, "is a wound inflicted on the devil." His point, I think, was that words are evanescent, and so are conversations; what lingers in the mind is only an impression of speech, a sense of having communed and communicated, an idea of what transpired between yourselves. The memory of a personal conversation is inevitably mostly fiction. Perhaps a phrase or an idea stands forth against the tide of lost words. Not so with a letter, in which words are preserved as if frozen in amber. That medieval abbot thought that letters were holy. I agree with him. They connect us in a most cordial fashion; they preserve the past, which had saints and angels and grace in it; they make us remember their authors, living and dead, and such memories are gentle prayers for those who sat down to write something of themselves.

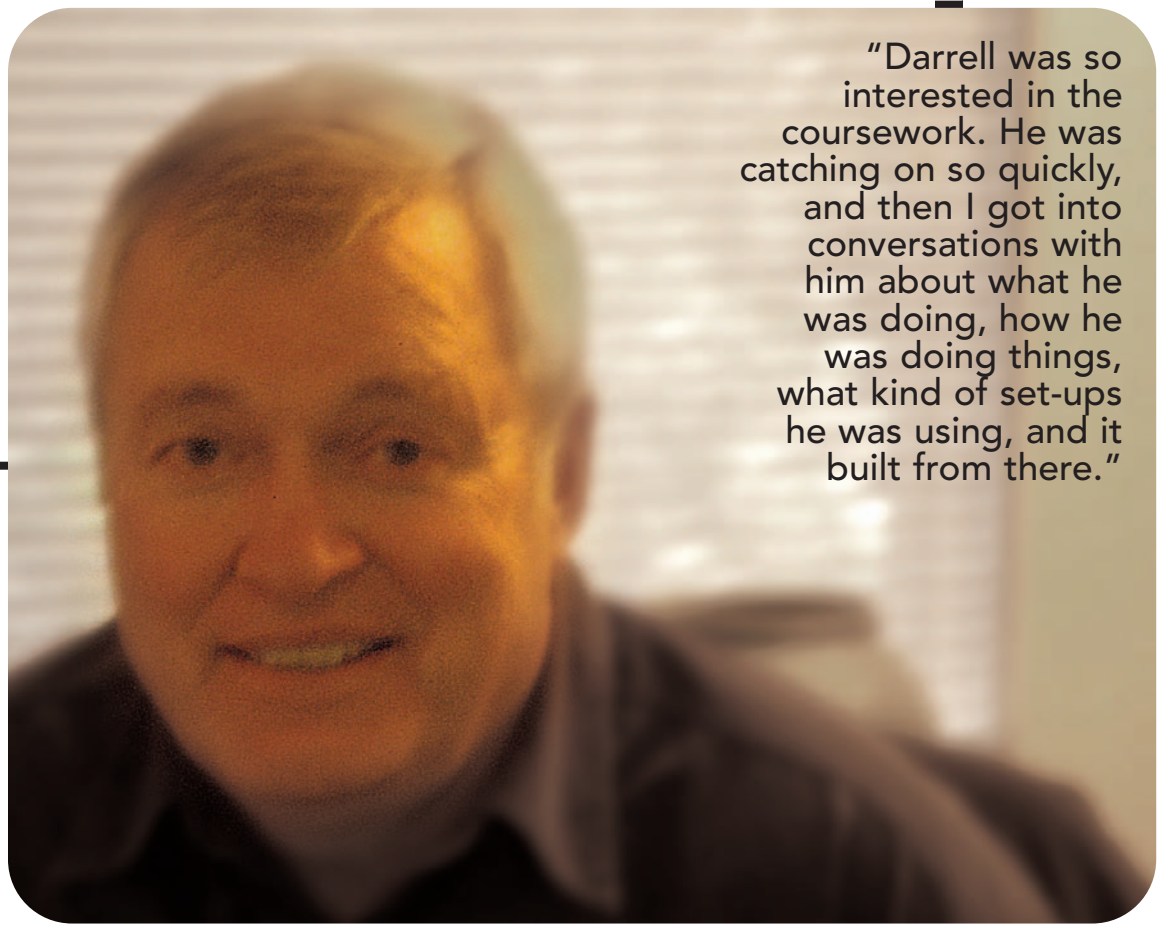
There are times in my life when all the world seems intricately related, when my mind snaps open with the clear snicking sound of a lock unlocked, when all things seem both circular and humorous. It is on moments like these that my spiritual life depends, and I have learned to wait as patiently for them as I do for the train.

When they arrive I relish and remember them, and hurriedly scribble down the words they were dressed in, and stuff the scraps of paper in my pockets. Sometime later, when the world has stopped rushing by and no one expects me anywhere, I write them down and send them to the people I love and respect. I think of these stories, and the letters and postcards on which they are scribbled or hurriedly typed, as small prayers, bulletins from the universe, stray and telling notes from the Big Song. With care and affection I scrawl my name at the bottom, affix a stamp, and entrust the paper packet to the air and to the United States Post Office. And soon enough, from everywhere, letters come back to me, each one the written voice of its author, each one a prayer, each one a gift. ■

Brian Doyle is the editor of Portland Magazine *at the University of Portland and the author of several collections of essays, including* Leaping: Revelations & Epiphanies. *This article first appeared in* Portland Magazine *in 1992. It is adapted here by permission of the author.*



"[Mr. Schaefer] was extremely easygoing and easy to communicate with. I feel like I made a better connection with him than I have with any teacher, except for a very few others, out of all my classes in public school."



"Darrell was so interested in the coursework. He was catching on so quickly, and then I got into conversations with him about what he was doing, how he was doing things, what kind of set-ups he was using, and it built from there."

Long-Distance RELATIONSHIPS

Teaching Web design to a blind student, a seasoned online teacher sees his job afresh.

STORY AND PHOTOS BY BRACKEN REED

FEDERAL WAY, Washington—When veteran teacher Lowell Schaefer first heard about a new online school being developed by the Federal Way School District, he was skeptical. "My first reaction," Schaefer recalls, "was, well, here we go—another way of taking the teacher out of the classroom, another way of making things more impersonal."

An artist as well as a teacher, Schaefer had been at Thomas Jefferson High School for 25 years and was not afraid of change. In his photography, drawing, graphic arts, and Web design classes, he had always attempted to stay on the cutting edge, incorporating new technologies and sharing the latest trends and techniques with his students. Still, there was one tenet he held sacred: forging meaningful, face-to-face connections with his students was, for him, the foundation of a successful classroom experience.

"I've always had a teaching style where I get to know my students," says Schaefer, "just by doing things like throwing my own interests out there and letting them respond to that and vice versa." That kind of back-and-forth, give-and-take was what made teaching enjoyable for him, and what made students enjoy taking his classes.

Online classes, he felt, would take away that connection and leave only a bland, uninspired transfer of information. Not exactly a recipe for success.

GETTING ONLINE

Schaefer's natural curiosity got the better of him, however. Despite his doubts, he couldn't resist attending the district's first couple of meetings about the online school. What he saw at those meetings turned his assumptions upside down.

"They did some presentations with elementary and middle school teachers who were working with small groups of students within the district, mostly online," he says. "I got to thinking about it, and I realized that it was quite different than what my first uneducated impression was."

Schaefer began to reexamine his current situation. His ability to create a dynamic classroom environment had been slowly deteriorating, he felt—eaten away by budget cuts, larger class sizes, limited equipment and supplies, and occasional disciplinary problems. Despite his best efforts, the classroom was becoming less personal and less individualized. The more he thought about online learning, the more he saw its potential to sidestep these problems and allow him to teach straight to the individual student.

As the district pushed forward with its online initiative, Schaefer went from skeptic to curious observer to full-on participant. The shift was gradual, but by the fall of 1996, when the Internet Academy—as the online school came to be called—was fully operational, Schaefer had written curricula for several courses, including photography, graphic arts, drawing, Web design, and middle school art appreciation.

It was not long before he found himself driving each day to a one-level business park in this sprawling suburb south of Seattle. Surrounded by insurance companies, mortgage brokers, and other small businesses, without a school bus in sight, the Academy was unlike any school he could have imagined when he first chose the profession in the early 1970s.

As he settled in to the new job, logging on to a computer each day from his comfortable, low-lit office, Schaefer saw that his initial fears were not only unfounded, but that the reality was better than he could have imagined. For the first time in years, he felt that he was able to focus directly on the curriculum and the students, with few distractions.

"What I have found," he says, "is that working with students on the Internet I actually get to know them better, in many cases, and get to know more of them, in a more personal way, than I ever did in the regular classroom."

The reasons for this, he says, are many. "Number one, in the regular classroom you're dealing with large groups of students and you're lucky to be able to interact, uninterrupted, for more than just a few seconds or at most a minute, with any one student. Also, when you're doing presentations or you're doing instruction, maybe one or two hands pop up, one or two kids who are actually responding, whereas, in this [online] format, every single student is responding, because every student has their 'hand' up as soon as they finish their homework. Anytime a student has a question or needs help they can e-mail me and I get back to them as soon as possible. They get immediate attention, and that's something I couldn't always do in the classroom—get to everybody, each day, whenever they really needed help."

The online format also allowed Schaefer to individualize the curriculum more effectively by adding supplemental materials, encouraging students to find the learning style that worked best for them, and to go at their own pace.

He also rediscovered the power of the written word. According to Schaefer, whatever Web-based courses lack in visual cues and verbal subtleties is more than made up for by the inherent intimacy of one-to-one writing. "Most students are much more open in an e-mail than they would ever be in class," he says. "They don't have the anxiety of speaking up in front of a whole group, and there's time to compose their thoughts and to get them down just how they want them. The English language is so powerful, an e-mail can express a lot about you—your sense of humor, your mood—that might not get expressed in a regular classroom."

The online format also appealed to Schaefer's natural affinity for the nontraditional student. "We have a lot of students who couldn't be educated as effectively in any other way," he says. "We had a student a couple years ago, for example, who was an extreme hemophiliac. He could only type for about five or 10 minutes at a time or he'd be black and blue up to his wrist. He couldn't leave home—any little bump or scratch could be fatal for him."

Whether it's a foreign exchange student needing to take English-language classes while overseas, a homeschooler in rural eastern Washington, a traveling musician, a child actor, a cancer patient, a single mother, or the Olympic speed skater, Apolo Ohno, Schaefer enjoys the diversity and uniqueness of working with all those who find themselves outside the ring of the mainstream classroom's campfire.

Ironically, the one common thread that connects nearly all of Schaefer's online students is that he will never meet them. But this, too, he has come to see in a positive light. "Ninety-nine percent of my students I never meet face to face," he says, "but that's one of the aspects of teaching online that can actually be great. I'm not influenced by their daily activities—whether they're 'good' in my class or not. I don't know what color they are, how tall they are, whether they're heavyset, whether they're delaying a bit in doing their assignments, whether they've had past behavioral problems. I'm just looking at the product of their efforts in my class."

THROUGH THE LINES, ACROSS THE DIFFERENCES

Among the online students whom Schaefer has never met is a senior at the Washington State School for the Blind (WSSB) in Vancouver, Washington, named Darrell.

When he signed up for Schaefer's Web Design class in the spring of 2004, Darrell had only taken one other online class, an eighth-grade course in the history of the Pacific Northwest, which had been a mixed success. He had liked the instructor but had failed to connect with the subject matter or to fully embrace the online format. But in the Web Design class it all clicked.

A big reason for that was Schaefer's flexible teaching style and ability to create personal connections with his students. "He was extremely easygoing and easy to communicate with," says Darrell. "With all of my courses I feel like it's

THE NUMBERS

Student enrollment in the 2003–2004 school year: 1,050

Online courses offered in the 2003–2004 school year: 3,618

Percentage of students by grade level in the 2004–2005 school year (to date):

- 61.7% in grades 9–12
- 26.9% in grades 6–8
- 11.4% in grades K–5

Percentage of students attending the Internet Academy full time (5 classes or more): 17%

Percentage of Internet Academy students from outside the Federal Way School District: 87.5%

School districts and communities: currently serves students from 92 different school districts and 145 cities, all in Washington state

Approximately 100+ subject areas are offered in core English, social studies, math, science, and a broad choice of electives

important that teachers try to communicate as though they understand our generation. I found it very nice that even though on his home page he said to use proper grammar and all that, Mr. Schaefer was communicating as if he was about 20 in our e-mails. I feel like I made a better connection with him than I have with any teacher, except for a very few others, out of all my classes in public school."

The difference in appearance and circumstance between Darrell and Schaefer would be hard to exaggerate. Gray-haired, nearing retirement, and casually but neatly dressed, Schaefer exudes calm and a certain level of hard-earned, middle class comfort. Though well over six feet tall and with a bear-like frame, there is a grace to his manners, a glint of humor in his eyes, and a soft, deliberate way of speaking that belies a contemplative and artistic nature.

At 18 years old, with wavy brown hair and a stocky, wrestler's build, Darrell is a complex mix of teenage energy, breathless enthusiasm, and a wise-beyond-his-years intensity. Behind the heavy-metal garb, mutton chops, and rebel attitude is a remarkably disciplined, mature, and focused individual who has endured a great deal of hardship without letting it dampen his infectious love of life.

Legally blind from birth, Darrell has had a multitude of operations to stabilize his degenerative vision. Active cataracts interfere with his already limited sight, which, at best corrected, is rated at 20/200. In layman's terms, that means that what he can see at 20 feet, a person with 20/20 vision can see at 200 feet. In practical terms, it means that activities such as driving are out, but working on a computer is still possible. In fact, Darrell chooses to work on a computer by placing himself one to four inches from a high-contrast color screen, rather than by using adaptive tools such as magnifiers or screen readers, which he finds intrusive. "I don't need them, they get in the way, and I don't like them," he says in a tone that fully conveys his fierce independence.

For the past four and a half years he has shuttled back and forth along the I-5 corridor, spending weekends at his parents' house in Auburn and weekdays at his small cottage dorm room on the WSSB campus. Every Friday afternoon the school's charter bus takes him home and every Sunday it carries him back to the school again.

In between, he leads a life of intense, self-imposed strictness, getting up at 4:30 every morning ("3:30 on laundry day") and taking a full class load that starts at 6:15, includes classes at nearby Hudson's Bay High School, and extends through an after-school exercise program called goalball. The sport was designed specifically for the blind, and he takes obvious competitive pleasure in participating.

On top of this he pursues his other passions: computers, art, sci-fi and fantasy novels, heavy metal and alternative rock music, and an obsession with the Japanese style of animation called anime. His desire to live life to the fullest, squeezing every drop out of a day, means he routinely gets only four hours of sleep a night, making up for it, he says, with lazy weekend mornings.

RESEARCH AND RESOURCES

"Using Computers in Distance Study: Results of a Survey Amongst Disabled Distance Students" by Rainer Ommerborn and Rudolf Schuemer of FernUniversitat in Hagen, Germany.
www.fernuni-hagen.de/ZIFF/ommsch4.doc
The authors of this paper interviewed adult disabled students who were enrolled in the university's distance education program. The students reported that computers and the Internet were valuable tools that facilitated their distance learning. The students also offered suggestions for how to make computer-based distance education more accessible to disabled students.

Center for Applied Special Technology
www.cast.org
This nonprofit educational organization in Wakefield, Massachusetts, works to make education more accessible and flexible for disabled students through the use of technology. It created BOBBY, a free online tool for testing the accessibility of Web pages: http://bobby.watchfire.com

Northwest ADA & IT Center
www.nwada.org
This center, located at the Oregon Health & Science University in Portland, Oregon, aims to foster the development of accessible education-based information technology. For more information, contact Nathan White at whitena@ohsu.edu

It's this passion for life and thirst for knowledge that came through loud and clear to Schaefer. "Darrell was so interested in the coursework," he says. "He was catching on so quickly, and then I got into conversations with him about what he was doing, how he was doing things, what kind of set-ups he was using, and it built from there."

For Darrell, the class was an ideal match of interesting subject matter, a great teacher, and a flexible schedule. "I could go at my own pace," he says. "I didn't have to try and push the slowest people in the class so that I could keep learning. And Mr. Schaefer was just so cool. He greatly appreciated my work ethic and he always got a kick out of my Web pages."

The bond was sealed when the two realized that Darrell's Auburn home and Schaefer's residence at the time were only five miles apart. Attempts were made to arrange a face-to-face meeting, but separate spring breaks, travel plans, and busy schedules got in the way. The two never met, but they still speak fondly of each other. And the connection may not end there. While Schaefer nears retirement and looks forward to enjoying his new home on Anderson Island, Darrell nears graduation and is busy applying to colleges. His desire, he says, is to someday be a high school English teacher. ■

Accessible Information Technology in Education

Denny Nkemontoh

THE ONLINE TEACHER:

When the Wee Hours Are Prime Time

Story and photo by Bracken Reed

PORTLAND, Oregon—Teaching in your pajamas at 2 a.m. might sound like a bad dream to most educators, but for Denny Nkemontoh, it's just part of the job. By day, Nkemontoh (pronounced kim-OWN-toe) teaches technology skills and sixth-grade math at Saint John Fisher School, a K–8 parochial school in Portland, Oregon. By night, she teaches two online courses through Oregon State University's K–12 Online program, and six courses through Oregon Online, a K–12 public school run by the Southern Oregon Education Service District (ESD), headquartered in Medford.

For the record, that's three institutions, an average of eight online courses and five classroom periods, serving 300 students (including an average of 45 online students per quarter), across 12 different grade levels. It makes for a lot of long nights.

"I had thought about getting my Ph.D. in online learning," says Nkemontoh dryly, "but I'd have to give up sleeping."

LOVE OF TEACHING

Ph.D. or not, Nkemontoh is obviously a high-energy overachiever. She has two master's degrees, has traveled throughout the world, has a busy home life with a husband and three children, and somehow finds the time to read more than 200 books a year. But none of this explains her willingness to endure such a busy schedule. Why take on such a heavy teaching load? Why teach online classes?

"Money" might seem like the obvious answer, but, as with any teaching job, it's hardly the whole story. Yes, the extra income Nkemontoh earns teaching online classes does help pay the bills, but it's a combination of flexibility, variety, and an old-fashioned love of teaching, that keeps her up into the wee hours, answering e-mails and guiding her online students through the intricacies of an Edgar Allan Poe story or the fine points of a well-structured research paper.

"Online teaching works for me, because I have a full-time day job and three kids at home," says Nkemontoh. "I can be home with my kids in the evening. I can help them with their homework, then get online, then stop and make dinner, then get back online. For me, it's very flexible, and I have to believe it is for my students, too, because they're logging in at all different times."

Equally appealing to Nkemontoh is the one-on-one nature of online teaching. "I feel like I really get to know the students on a more personal level," she says. "They feel free to express themselves because they're not standing up in front of a class—they don't have to worry about what other people say or think. It's a very special time because they are open and honest."

Nkemontoh also loves the diversity of students who take online classes. While her classroom students are a homogeneous group, drawing from the predominantly white, middle class suburbs south of Portland, her online students come from a variety of backgrounds. Rural to urban, coast to desert, homeschooled to world traveling, they provide a variety that keeps Nkemontoh excited about teaching.

"I love my [Saint John Fisher Elementary] students," she says, "but I do miss the diversity. I started out as a teacher in a girl's school in Cameroon, in West Africa. And I also taught in an elementary school in south central Los Angeles. The online teaching really opens up more of the world to me again, and I do enjoy that."

Nkemontoh goes to unusual lengths to open up the larger world for her students as well. In many of her online classes she uses Weblogs ("blogs") to facilitate discussion. Sometimes she gives students the option of creating their own blogs, in the same way she encourages her classroom students to keep journals, and other times she has students log on to her blog as a kind of centralized discussion board.

Either way, she frequently uses her international connections to involve students from other countries.

"I invite them to join in our blog," she says, "and that's really been a neat exchange. We've had language arts students from Ukraine, Poland, the Czech Republic, Cameroon, and a few other places. It gives students a completely different point of view."

PERSONALIZED PEDAGOGY

In her willingness to embrace technology, to take a global view, to create personal bonds with a diverse group of students, to individualize her courses, and to adapt to a wide variety of teaching situations, Nkemontoh represents a new breed of teacher.

According to Tina Mondale, the director of school improvement for the Eagle Point School District in southern Oregon, and formerly a lead administrator for Oregon Online, this kind of adaptability will be a necessity, not a choice, as schools strive to better meet the needs of their students.

"Schools are being asked to become more and more individualized for their clients, who are their students," says Mondale. "I think in the very near future kids will take part of their classes online and part of their classes at a school; part of their instruction will be given individually and part of it will be in groups."

The reason for this, Mondale says, is that the factory model of public education simply has not worked. "That kind of mass education—throw a whole bunch of kids in one room and teach them all the same thing at the same pace—doesn't work very well," she says. "We see that by kids not succeeding. For that reason alone, individualizing education is the way of the future."

All forms of distance learning are on the rise, Mondale points out, but online learning is especially popular. "It's growing at just a phenomenal pace around the world," she says, "because it has some very definite advantages. Part of what education does, or is supposed to do, is to prepare kids to succeed in the world we're living in now. Online learning certainly does that, because we're living in a technological world. The way we communicate is with the same tools that students use in an online class. So, besides the content, you're teaching them how to communicate using technology. That's really critical—it connects them to the larger world."

INSTITUTIONAL SUPPORT

Mondale began her professional life as a first-grade teacher and quickly became a proponent of technology. "I saw how it motivated the kids in my classroom," she says. "I saw its potential for getting kids excited about learning." Her enthusiasm eventually led to her position as the technology coordinator at the school, and she has not looked back since.

For six years Mondale has been promoting both online education and the use of technology in the regular classroom. Through courses offered by the Southern Oregon ESD and Southern Oregon University, she has taught others, via the Internet, effective online teaching practices and instructional design. One of her students was Denny Nkemontoh.

While Nkemontoh was already technology-savvy and an accomplished classroom teacher, she found the online training to be invaluable. "The teachers I had modeled good online teaching," says Nkemontoh. "That was really important. They got back to me in a timely fashion; they treated me like an individual person rather than just a student with a number; they remembered things about me. There was also a sense of organization, professionalism, and consistency in the courses and in how they presented them."

A focus on personalized communication and a clear, consistent instructional design, complete with assessments, are the absolute bedrock of successful online teaching, says Mondale, but equally important is an often-overlooked need for institutional support, for both teachers and students. "Right now, most traditional school systems are really not set up to support students in online learning," she says.

Those supports can be as basic as making sure students have a place to do their work, to more complicated investments, such as providing a mentor at the school who can offer face-to-face help, having well-trained counselors who can do a good job of placing students in online classes and preparing them for the self-discipline that is required, or providing teachers with building-level technical support.

But, according to Mondale, the most important and most complicated support that is necessary for the success of online learning is less tangible. "A lot of the policies we have now don't lend themselves to online learning," she says. "And it's a battle, because it's trying to change a very strong traditional school culture, which is that you come in and you sit down every day and you're marked absent or present, and that's how you take classes. We need to have a broader definition of education in order for the online model to succeed."

The cultural change needs to happen at every level, says Mondale, including higher education. "Online education is going to be a part of how all kids learn, and I think it's going to be a part of how all teachers teach."

Web Exclusives:
Making the Link to College
Expert Opinion: The Art of Online Pedagogy
Teaching at the Federal Way Internet Academy

Family Connections

Photo by Michael Heavener

An ambitious project aims to prove Web-based technology can break down language barriers and increase parents' ties to the classroom.

STORY AND PHOTOS BY RHONDA BARTON

DELTA JUNCTION, Alaska—Nine-year-old David Abramov quietly practices his spelling list, neatly printing words such as "the," "is, "you," and "we" in rows on lined notebook paper. He recites vowels and occasionally stumbles over an o-a or o-u sound, but that's understandable: David arrived in the United States just one month ago from Uzbekistan. This is his second one-to-one lesson with Sirje Kulakevich, a Title I aide from Estonia who is a resource for the Slavic families that have flooded this town at the end of the 1,400-mile Alcan Highway that stretches from Alaska to Canada.

One-third of the students in the Delta/Greely School District share similar stories to David's. From the Ukraine, Moldavia, Romania, and Russia, they've come to this spot where farmers raise yak and grain, and where some of the businesses on the commercial strip are named for an elusive herd of bison that populate nearby woods. Families are drawn here by cheap land, jobs in the gold mines, and a supportive immigrant community that revolves around the charismatic Pentecostal church. They seek opportunity and an easier life for their children, free of the turmoil of homelands still struggling to adjust to noncommunist rule.

For children and parents alike, the language barrier presents the biggest challenge in adapting to their new life. For the 844-student school district, communications is a stumbling block in helping immigrant children succeed. But, technology may hold one of the keys to bridging the linguistic gap and bringing Slavic and American cultures together.

Breaking the Barrier

At Delta High School, a small room crowded with hard drives and servers is the nerve center of Project Parent Connect, an uncommon attempt to use computers to increase parent involvement and improve student academic performance. Initially funded by a $284,000 Enhancing Education Through Technology (E2T2) federal grant and subsequently by school district dollars, the project has two main components: switching to a Web-based student information system and using Russian language translation software to make that information—and teacher communications—accessible to non-English-speaking parents. By encouraging parents to actively participate in their children's schooling, the project seeks to mitigate the high risk of educational failure that accompanies poverty and limited English skills.

The initiative is the brainchild of Rick Johnson. It grew out of his personal frustration with paperwork and the rising and falling fortunes of Delta Junction. Settled into a comfortable booth at the Buffalo Diner, Johnson launches into the story of how Project Parent Connect (or PPC) was conceived.

Johnson was teaching third grade at nearby Fort Greely when the Army

base was mothballed and the base school closed. Casting about for a way to make a living in Delta Junction, he bought the diner—known for its buffalo burgers—and started teaching part-time at the Delta Cyber School, a statewide online charter school. Three years later, when Fort Greely reopened as a national missile defense site and the town swelled with Slavic immigrants, Johnson was able to sell the diner and return to teaching full time. But, making the transition from a technology-based school system to a traditional one was tough. "My pet peeve was that I was expected to take attendance on a piece of paper, enter it into a computer, then have a student take the paper to the office where that staff would enter the numbers into their computer," he recalls. "I began to design in my mind what was needed for an automated information system that would originate in the classroom and eliminate all those steps."

At the same time, Johnson was searching for a way to engage the families of his Slavic students just as he had at the closely knit Fort Greely school. "If you can bring the parents into the information flow, and make them aware of their child's progress on a real-time basis, they're much more likely to get involved with his education," he observes.

PPC was the answer. The district's new Web-based student information system and translation software allow any Slavic family with a computer to monitor classroom performance, review it with their student, and freely communicate with teachers. Families without home computers—especially those whose children receive free and reduced-price lunch or are recommended by their teachers as needing improvement—can borrow the equipment from the district. One group of families is being selected to receive computers and training during the first semester while a second group will get equipment and training during the second semester.

Measuring the impact of the program on students' test scores, attendance, and report card results is a PPC priority (see "The Research"). An assessment plan calls for surveying parents and teachers on a regular basis, conducting interviews, and tracking the number of computer hits to see how they correlate to student improvement. The group that received computers and training during the first half of the year will be compared to the "control group" that will be served at a later time.

The plan to capture rich data and use a randomized experimental evaluation design is what distinguishes the program and excites Gary Graves, a Northwest Regional Educational Laboratory evaluator. "This project has many strengths," says Graves, "but one feature of PPC sets it apart from any other E2T2 grant that NWREL is aware of: a commitment to and support for using a scientifically based evaluation model to measure the project's results. The U.S. Department of Education is asking for evidence of impact, and PPC has the potential to help answer one of education's more difficult questions: What difference can technology make in student learning?"

Getting Started

Armed with the federal grant, Johnson started putting the pieces in place last year but discovered that PPC's goals were simply too ambitious for a one-year time span. The bulk of the 2003–2004 school year was spent replacing outdated district software and hardware and fine-tuning the student information system, which uses the Web-based PowerSchool program. Familiarizing teachers with the system, putting the translator server online, and getting the word out to parents started in earnest as the semester drew to a close. This year, the project will concentrate on placing computers in the homes of low-income English-language learners, offering training to both parents and teachers, and continuing to collect and analyze data.

Johnson has relied heavily on his bilingual technology assistant to get the project off the ground. James Shestopalov, a 21-year-old Estonian, not only has the perfect combination of language and technical skills, but can relate personally to what the Slavic families are experiencing. He arrived in the United States at age seven, not speaking a word of English.

Shestopalov's Jeep bumps along the rural roads, bringing computers and technical assistance to the far-flung homes of Slavic families. An unofficial goodwill ambassador for the district, he installs the equipment—patiently showing parents how to access their children's homework and grades and

THE RESEARCH

An initial evaluation by the Northwest Regional Educational Laboratory found that Project Parent Connect is "very likely to have positive impacts on student and teacher, technology literacy, parent involvement in their children's education, and teacher professional growth." The report—completed in August 2004, after PPC's first year of operation—concludes that "if the project continues it may also show impacts on student achievement."

NWREL evaluators surveyed 90 parents and 34 teachers on computer use and their perception of the effectiveness of technology in improving home/school communications and student academic performance. The NWREL evaluators also observed computer training sessions for teachers, conducted interviews with teachers and parents, and examined student data. The information will be used to establish a baseline from which data gathered during the project's second year can be compared.

Evaluator Gary Graves will closely watch the latest phase of the project: providing computers with translators to a group of randomly selected, low-income Slavic families. The district will offer bilingual training to the parents and track how they use the computers to monitor their children's educational progress. "This is the only district we know that's doing a randomized study of the impact of technology and parental support on student achievement," says Graves.

Graves expects to complete a final evaluation of the project in summer 2005.

"I use the computer for my three high-schoolers because I don't have time to check on them (with their teachers). PowerSchool helps me know what's going on—especially when there's a problem."

—Sirje Kulakevich

how to use the translator. So far, he says, families seem to be embracing the new tool. "They like it because whenever they want to, they can find out how their kids are doing," he says. "They don't have to wait for a report card."

Keeping Track

Shestopalov pulls off a deserted road onto the long driveway of a two-story wood frame home where the Kurilchenkos live. Olga—in a flowered skirt, sandals, and T-shirt that belie the five inches of snow covering her garden—warmly welcomes him with a burst of Russian. With Shestopalov translating, she explains that her four children attend two different schools in the Delta/Greely district. Her husband, a musician who supports the family as a school bus driver, goes online once or twice a week to look at the youngsters' progress reports or to e-mail teachers. She uses the translator to help her children with homework assignments in between shifts as a cook at the local pizza parlor. It's been two years since the family emigrated from the Ukraine—brought by "the style of living," she says—and her children are progressing in their studies. "Someday, I'd like to see them go to college," she confesses with a shy smile.

Sirje Kulakevich, the Title I aide, has also found that PPC helps her keep a close watch on her flock of nine school-age children. "I use the computer for my three high-schoolers because I don't have time to check on them (with their teachers). PowerSchool helps me know what's going on—especially when there's a problem," she reports.

It's also a huge benefit professionally, cutting down on requests from harried coworkers at the elementary school. "Before, I was spending part of my time translating letters to parents," says Kulakevich. "Sometimes it was overwhelming because teachers would leave me papers and say, 'How fast can you do this? It's an emergency.'" Now, teachers can simply e-mail messages, send school documents, and update student Web pages that are automatically translated from English to Russian. Parents' replies are instantly converted from Russian to English.

Bringing Teachers on Board

Johnson has found that winning teachers over to the system depends on their basic comfort level with technology. "My challenge has been to provide some teachers with an introduction to PowerSchool and the translator server concept while I'm holding the hands of others who are intimidated by turning the computer on." This year, he's scheduled a series of one-hour sessions—held immediately after school—where teachers receive training in Web page development plus a small stipend for their time.

Michelle Beito, a Title I teacher, admits she needs to become more proficient so using the computer doesn't take her so long. But, she already knows she'll put the translator to work "talking about what we're doing in reading and why literacy is so important." She adds, "Most of our students are Slavic

THE NUMBERS

2003–2004 enrollment: 1,160 (includes 316 district students enrolled in Delta Cyber School)

Graduation rate: 56%

Students eligible for free and reduced-price lunch: 55%

Students classified as English language learners: 33%

Total number of students who tested proficient in assessments (grades 3–10):

Math, 61.5%
Language Arts, 69.8%

Number of LEP students who tested proficient:

Math, 41.4%
Language Arts, 46.7%

Statistics from Delta/Greely School District 2003–2004 Report Card to the Public

and their parents need to be sure they read to them and talk about books at home—whether in Russian, Ukrainian, or English. Getting that message out is my goal."

Wayne Butler, who teaches high school social studies and coaches the fledgling football team, has nothing but praise for the system and its ability to give parents a real-time window on their child's progress. "Some parents last year would check on their kids daily—I swear hourly, in some cases! I'd get e-mails saying, 'Why does so-and-so have a 50 percent? F's are unacceptable in our family,' and I'd be able to leave a message saying he only did half the assignment."

Besides bolstering communications and "tearing down boundaries," Butler also sees the updated student information system as an essential piece of his practice. "I can really look at my assessment data and use that to drive instruction."

Just how much of a difference Project Parent Connect makes won't be known until at least the end of this school year, but Johnson is hoping for a 3 to 5 percent improvement in student scores. Even if those gains aren't realized right away, Johnson firmly believes that the program has the potential to help other school districts struggling with similar issues. He and Shestapalov are working on a template with a Slavic language library that could reach families like David Abramov's wherever their quest for a better life takes them. ■

James Shestopalov

Rick Johnson

DELTA CYBER SCHOOL

Project Parent Connect isn't the only innovative technology tool in Delta/Greely School District's arsenal. The district is home to Delta Cyber School (DCS), a statewide charter school that offers almost 100 high school and middle school courses online.

Founded in 1997 as one of Alaska's first Web-based correspondence schools, Delta Cyber School uses an interactive software program (Elluminate) for real-time collaboration between students and teachers. According to the school's promotional material, synchronous pacing of courses "allows students and teachers to get to know one another, develop a sense of community, and provide firmer deadlines to facilitate course completion."

Program coordinator Pam Krepel says the school attracts students aged 12–20 for a variety of reasons: Some are picking up a class or two to complete graduation requirements while others take specialized electives like German or oceanography that aren't offered in their resident school. One district in the Aleutian Islands has asked the Cyber School to be their "highly qualified partner," using the school's seven highly qualified staff to meet requirements of the No Child Left Behind Act.

Krepel emphasizes that DCS is not a homeschool support service, though a few homeschoolers are among the current roster of 400 students. Public schools pay a small tuition fee for students taking DCS courses through the Alaska Online Consortium—a group of Internet-based schools that share resources.

Students—whether they're from public, private, or home schools—are strongly encouraged to have a mentor: an adult whose role is to help them succeed. Mary Corcoran, one of the original founders of DCS who now works for the Alaska Online Consortium, notes that schools using DCS's services through the consortium must commit to providing a mentor in their building who is a contact for the student. The mentor's not there as a tutor, but to troubleshoot, she says. Besides having a responsible adult at one end of the computer, Corcoran lists other key components for a successful online school experience:

- The student must want to be schooled that way—She must ask herself, Am I organized and self-disciplined enough to sit down and do the work? Will I miss not being in a building, surrounded by classmates?
- The teacher has to be flexible and attuned to potential difficulties—"You could have a computer geek who's certified making the lessons, but he won't connect [interpersonally] with the student unless he can put himself in the student's place," Corcoran advises.
- The student needs an appropriate workplace—A physical space that's dedicated to schoolwork must be available, as well as well-organized spaces on the computer so assignments don't get lost.

For more information on the Delta Cyber School, check out www.dcs.k12.ak.us.

—Rhonda Barton

VOICES

A Professor's Voice: Teaching Writing in the Digital Age *by Michael McGregor*

Of all the students I've taught, few seemed less likely to spark an epiphany than he did. A white-haired, hard-faced man in his 50s, he had squandered his post–high school years dealing drugs and living the high life. When we met to discuss his writing, he told me he once had a mansion, expensive cars, and his choice of any number of women. Then the police arrived at his door. He spent the next seven years inside one of America's least-enlightened institutions, a Texas prison. After his release, he drifted to New York and somehow found his way into the continuing education program at Columbia University. He was still on probation that year and his writing, as you might imagine, was a mess.

When I met him, I was a second-year graduate student teacher. My first year, I'd learned to cruise through freshman composition papers. I could mark a two-page essay and add an endnote in 10 minutes flat. But the continuing education students slowed me down. Life experience made their writing more diverse and many of them had idiosyncratic habits of thought. The man from Texas did more than slow me; he stopped me dead. As I stared at his paper one day, trying to understand his syntax and word choice, I realized I was looking at something other than an essay: I was looking at a map.

It was a tortured map, granted—one you wouldn't want to use if you were seeking the shortest route from A to B—but it was a map nonetheless. A mental map. The map of a mind shaped by a particular set of circumstances and experiences. And it changed my thinking about how to teach writing, especially the creative kind.

The counterpoint to the man from Texas was a young woman who'd been in one of my freshman composition classes the year before. She was the smartest student I've ever taught—from Columbia, she went on to graduate work at Oxford—and she had an interesting ethnic background that might have enriched her writing in unexpected ways. But her writing was completely conventional. When I required a revision, she revised exactly as I suggested. Each essay came out technically perfect, but lacking life. She had a map, too, but its contours were completely different.

When I moved on to teaching creative writing fulltime, I held on to this idea of reading maps—studying an individual's patterns of thought before offering writing advice. In these times of shrinking budgets and larger class sizes, writing teachers are tempted to adopt a one-size-fits-all approach, offering a set of guidelines or imaginative exercises meant to lead all students to the same creative pot of gold. But each student's mix of education and life experience is different, and the sources and destinations of compelling writing are unpredictable. The type of guidance one student needs might be the most damaging kind for another.

For example, the man from Texas needed to be made more aware of how grammar and syntax usually work, so readers could understand his writing—but without losing the uniqueness in his use of language. The Oxford-bound student, on the other hand, needed to have some of her mental fences torn down, so her imagination could roam through fields of the unexpected. A careful study of their maps revealed their differences, showing me how best to work with each of them.

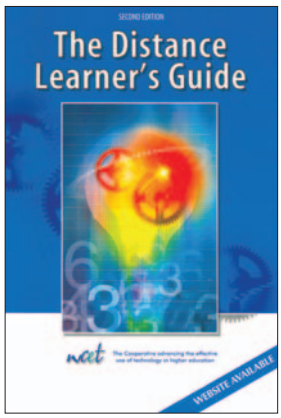
Since my days in graduate school, reading students' mental maps has become more difficult, and yet more important, because technology now plays a bigger role in students' lives. Whereas schooling and life experience alone once determined how young people thought and wrote—with schooling supplying forms and conventions and experience voice and content—in recent years, technology has come close to overwhelming these other influences.

In America today, television, movies, video games, and computer programs flood young people with a standardized set of images, ideas, and storylines that tend to systemize their thinking. Unlike the systemizing that takes place in school, which provides the building blocks for independent (and perhaps creative) thought, the systemizing offered by consumer technology substitutes passive reception for active engagement, conventionalizing both thoughts and creativity. Instead of running free, the mind follows paths traced out by others. The result in writing classes is student writing that has neither the Texas man's intriguing idiosyncrasies nor the Oxford-bound student's understanding of form but only mimics what is mass-produced. In other words, the maps a writing teacher tries to read today are often mere facsimiles, not authentic tracings of an individual's thought.

Distance learning can make the task of reading students' mental maps even harder because the teacher's contact with students is mediated entirely by technology. Because the

See VOICES, *Page 43*

RESOURCES



The Distance Learner's Guide (2nd ed.), by Sally M. Johnstone & George P. Connick (Upper Saddle River, NJ: Pearson Education, 2005).

Developed by the Western Cooperative for Educational Telecommunications, this book is a practical, student-oriented guide to taking distance education classes. Every counselor should have a copy. For more information go to www.wcet.info/.

E-Moderating: The Key to Teaching and Learning Online, by Gilly Salmon (Sterling, VA: Kogan Page, 2000).

Somewhat jargon-heavy and focused on the United Kingdom, but still one of the best available books on effective online teaching practices and curriculum development.

Engaging the Online Learner: Activities and Resources for Creative Instruction, by Rita-Marie Conrad & J. Ana Donaldson (San Francisco, CA: Jossey-Bass, 2004).

A teacher-oriented guide to adapting effective teaching practices to an online format. It emphasizes group collaboration, peer interaction, and activity-based instruction. A great source of ideas for involving students more effectively in their own learning.

Keeping Pace with K–12 Online Learning: A Snapshot of State-Level Policy and Practice, by John F. Watson, Kathy Winograd, & Steven Kalmon (Naperville, IL: North Central Regional Educational Laboratory, 2004).

The results of a national survey that looked into the online education programs and policies in 22 states. Looks at key issues such as funding online programs, providing support for special needs and nontraditional students, ensuring course quality, and combining state, district, and program-level policies into a cohesive framework.

Virtual Schools and E-Learning in K–12 Environments: Emerging Policy and Practices, by Robert Blomeyer (Naperville, IL: North Central Regional Educational Laboratory, Policy Issues No. 11, 2002). Available online at: www.ncrel.org/policy/pubs/html/pivol11/apr2002c.htm

Developed for policymakers at both the state and district levels. A good overview of the major policy issues involved in developing effective, research-based online programs.

Virtual Schools: Trends and Issues. A Study of Virtual Schools in the United States, by Tom Clark (San Francisco, CA: WestEd, 2001). Available online at: www.wested.org/online_pubs/virtualschools.pdf

This study summarizes a 2001 survey of 44 state-approved or regionally accredited online schools. It describes the wide variation in program types and compares the funding, tuition, curriculum, technology, staffing, and types of students served. A good starting point for understanding the kinds of programs currently offered.

On the Web

Digital Bridges: Connections for K–12 Teaching and Learning Over Distance (Portland, OR: Northwest Regional Educational Laboratory, Northwest Educational Technology Consortium). Available online at: www.netc.org/digitalbridges/

A great source of information on both interactive videoconferencing and Web-based learning. Easy to navigate and very practical for both teachers and administrators.

"Virtual Schools & Distance Learning" (State Educational Technology Directors Association, National Leadership Institute 2003 Toolkit). Available online at: www.setda.org

State policymakers will find this resource worth excavating. Follow this trail: About SETDA, Initiatives, SETDA's NLI Toolkit, NLI 2003 Toolkit. The 2004 Toolkit, due out in April, will focus entirely on online learning.

K12 Online Resources & State-Level Virtual Schools (Hoboken, NJ: eLearners.com). Available online at: www.elearners.com/resources/k12-online.asp.

A good general site on distance learning, with a comprehensive list of statewide online learning programs. A good starting point for policymakers who want to see how other states have developed centralized online learning programs.

Resource Annex

RESEARCH BRIEF

Research on E-Learning Is Emerging *by Denise Jarrett Weeks*

"The hottest high-tech trend" ... "The best hope for school reform" ... "A daunting technological frontier of irreversible changes." These are the kinds of things you hear when you listen to the buzz about online education. That online schools and programs are blooming like fireweed across the education landscape seems to be everyone's perception, whether one views the innovation as benign or intrusive. Depending on whom you ask—education or tech-industry researchers—somewhere between 40,000 and 1 million K–12 students across the nation are enrolling in online courses these days.

Learning Point Associates of Illinois, a nonprofit education research agency, pointed to a government estimate that there were 40,000 to 50,000 online students in 37 states last school year. They identified 2,400 publicly funded online schools run by charter schools, states, and school districts. A much more robust estimate was made by the technology market research firm the PEAK Group, which projected that by this school year there would be 1.2 million students enrolled in online courses. In the group's report, *Virtual Schools Across America: Trends in K–12 Online Education 2002,* it notes that the lack of research on the effectiveness of online education hampers its development.

"The concept is still very new and relatively untested," the authors write. "To further complicate the issue, virtual schools employ a variety of teaching and learning methodologies and vary considerably from program to program making general analysis difficult." By and large, the success of individual online programs has been measured by test results, student retention, and course completion rates, and rarely by experimental research examining students' learning.

EXCAVATING EVIDENCE

Searching for scientific evidence of the effects of online learning on students' academic achievement, Learning Point researchers trawled library shelves and the World Wide Web for rigorous experimental studies. Out of thousands of reports, only 14 studies met their standard.

Working with researchers from two Florida universities, Learning Point Associates synthesized these few experimental studies on Web-based distance education programs. In October, they issued their report, *The Effects of Distance Education on K–12 Student Outcomes: A Meta-Analysis.* The studies they chose involved grades 3–12 and addressed reading, writing, math, science, social studies, physical education, and listening.

"The analysis shows that distance education can have the same effect on measures of student academic achievement when compared to traditional instruction," they conclude, saying that research indicates "no significant difference in performance between students who participated in online programs and those who were taught in face-to-face classrooms."

They found that online students were better problem solvers, decisionmakers, researchers, and critical and creative thinkers than their classroom-bound peers. Yet, online students were more likely to feel isolated and show less improvement in listening and speaking skills than their peers in conventional classrooms. Text-heavy online programs can present a particular challenge to students with language difficulties, and highly technical subjects, such as math and science, can be difficult to teach online.

But with only 14 studies to go on, the evidence is thin and must be interpreted with caution, the researchers write. "[C]urrent Web-based distance education systems have only been studied for about the last five years at the K–12 level, a very short time in which to build a body of literature."

They go on to say, "The importance of knowledge about effective virtual schooling cannot be overstated, because of the current boom in the numbers of virtual schools and students, and because of the essential role virtual schools can play in school reform movements and workforce development efforts."

The same month they made this claim, however, the Alliance for Childhood issued *Tech Tonic: Towards a New Literacy of Technology,* a report contradicting the truism that children must become savvy users of technology in order to become successful adults.

Writing about educational technology in general, the authors say, "The supposed benefits of this techno-revolution for children are relentlessly promoted by high-tech corporations, even though independent research (conducted by those with no financial stake in the outcome) has produced little evidence of lasting, long-term gains."

The group is particularly critical of immersing young children in technology. "We remain convinced that, at the elementary school level and below, there is little evidence of lasting gains and much evidence of harm from the hours spent in front of screens," it says.

At present, the great majority of online education programs are for high school and middle school students. Few have been developed for very young children. The Alliance contends, however, "Research strongly indicates that face-to-face relationships with people and the rest of the natural world are critical not just for young children but for older students as well."

KEY TO SCHOOL REFORM

The federal government increasingly sees online learning as a tool for school reform. It has directed $1.8 billion to schools through its Enhancing Education Through Technology program, or E2T2. The program is in Title II of the No Child Left Behind Act, and officials encourage schools to use E2T2 funds for distance learning.

Last summer, the U.S. Department of Education hosted the Secretary's No Child Left Behind Leadership Summit—Increasing Options Through e-Learning. Governors, legislators, education leaders, and education technology experts were asked to explore virtual education as a "powerful technology innovation expanding opportunities for online learning anytime, anyplace in support of NCLB."

Online education can be key to helping schools meet some of the most challenging aspects of the NCLB legislation, said Susan Patrick, director of educational technology for the department, in her remarks at the summit. Supplemental services, professional development, and difficult-to-provide courses can be delivered to teachers and students through the Internet. Online programs from public and private providers foster school choice.

Some rural schools see online education as their best hope for preserving the personalized nature of their small schools. "[D]istance learning can enable small schools to remain open and small—thereby embracing more than a half century of education research showing that smaller schools offer a multitude of educational advantages for students over larger schools," writes the author of *The Promise and the Power of Distance Learning in Rural Education,* published last fall by the Rural School and Community Trust.

President George W. Bush has indicated that he will be turning the focus of his education agenda to high school reform, including making them more personalized. The U.S. Department of Education has launched Preparing America's Future: The High School Initiative to improve the quality of high school education for all students by emphasizing rigor, relevance, and relationships. Some see online learning as a good way to serve these aims. The authors of the Learning Point report say that technology, including e-learning, is increasingly seen as a force that can transform education because of the power of e-learning to individualize, personalize, and differentiate instruction.

The federal education department and national education groups have identified high school reform models that promote small school size, scheduling choice, charter schools, career academies, early college initiatives, and student engagement as strategies for boosting student achievement, say the Learning Point authors.

"Each of the reform models described and recommended by these groups is an example of a strength that has been shown by virtual schools," they say. "By offering scheduling flexibility, personalization, freedom from a large physical school, engaging tools of distance learning, opportunities to accelerate learning, and access to rigorous academic programs, virtual schools are not just important examples of school reform models, but virtual schools may represent the best hope for bringing high school reform quickly to large numbers of students."

A CALL FOR RESEARCH

Four years ago, when the impulse to launch online schools was at a tipping point, the National Association of State Boards of Education claimed soberly, "[T]he uncomfortable reality is that education leaders are not currently driving the policy agenda. Rapidly moving trends are outpacing the ability of policymakers to keep up."

In the association's report, *Any Time, Any Place, Any Path, Any Pace: Taking the Lead on e-Learning Policy,* it said that the nation was "rushing pell-mell" into a new sphere of online education that was being driven by commercial interests as well as public. "By allowing this policy vacuum to continue, education leaders are failing to meet their obligation to assure that all students are provided a quality education."

Today, it's clear that the message has been heard. Legislators and policymakers in the states are writing new laws and regulations to guide the development of online education, and education agencies are issuing guidelines for online programs.

The summons, now, is for research.

And the U.S. Department of Education is putting money behind the call. Altogether, it has directed $56 million toward recent studies of educational technology at the K–12 level. In 2003, it awarded $15 million in E2T2 grants to nine states to conduct rigorous studies of how technology, including Internet-based distance education, affects student achievement in elementary and secondary education. The studies are intended to seed this area of education research with high-quality investigations that will beget yet more research. It's urgent to know what online education can offer 21st century schools, and what unintended consequences this new mode of public education might introduce.

"Virtual schools are calling into question longstanding ideas about the definition of a public school, the social goals of public education, and local control of public education," write the authors of *Preserving Principles of Public Education in an Online World: What Policymakers Should Be Asking About Virtual Schools.*

The paper was published in 2002 by the Center on Education Policy. "America's system of free, nondiscriminatory, religiously neutral public education has been the lifeblood of our democratic society. As a nation we have been careful to fiercely protect basic principles of public education, while remaining open to new ideas that could improve education for students."

Acutely aware of how fast new technologies can infiltrate people's lives, the authors write, "Like any innovation, [virtual schooling] should be implemented with careful deliberation and good planning. … Without these conversations, the landscape could change so quickly that essential principles could be compromised before people even realize it." ■

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U.S. Department of Education Web Sites

Enhancing Education Through Technology Program (E2T2) www.ed.gov/programs/edtech/index.html

Increasing Options Through e-Learning Summit
This site includes papers on how e-learning can help schools address NCLB requirements.
www.nclbtechsummits.org/summit2/s2-presentations.asp

National Education Technology Plan
www.NationalEdTechPlan.org

No Child Left Behind
www.nclb.org

Office of Educational Technology
www.ed.gov/Technology

Preparing America's Future High School Initiative
www.ed.gov/about/offices/list/ovae/pi/hs/index.html

Voices *Continued from Page 39*

teacher has little chance to get to know students outside their writing or observe their behavior, it is extremely difficult to separate skill in the use of forms and conventions from mindlessly absorbed conventionality, or experience-based content from the array of secondhand ideas and images that swirl around us. The problem is exacerbated if the teacher uses pre-packaged software that offers the same exercises and instruction to all students.

Teaching writing in an era of technology-induced mimicry and mediation is not impossible, simply more difficult. We have to fight the systemizing tendency of technology and pay more attention to, perhaps even praise, the idiosyncrasies we are prone to call "mistakes"—the tortured syntax and odd word choices, for example, offered by my Texas man. We have to take out the magnifying glass and examine our students' mental maps minutely, looking for the faintly traced paths that might lead to unexpected fields if drawn more skillfully and boldly.

We might lack the time to make cartographers of everyone, but if we, as teachers, don't help students see and create something new from who they are, we condemn them to a life of borrowed and/or tangled thoughts, diminishing the chance that they will put together meaningful, creative lives. ■

Michael McGregor is an assistant professor of English at Portland State University where he teaches literary nonfiction writing. He is writing a biography of the minimalist poet Robert Lax.

REGION AT A GLANCE

Spotlight on Online Supplementary Services *by Richard Greenough*

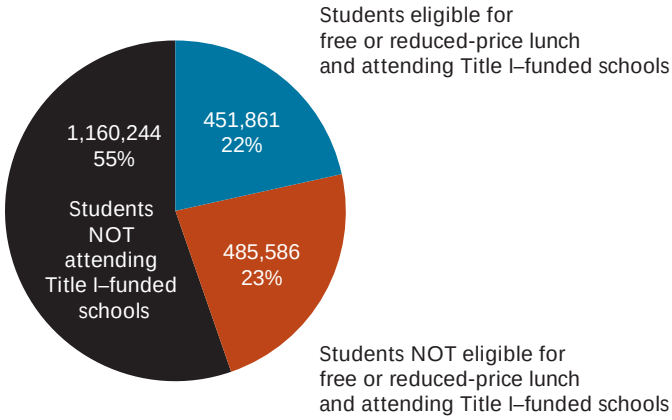
If a school fails to make adequate yearly progress for a third year, students from low-income families in the school must be given the option to use Title I funds to obtain supplemental educational services from a public- or private-sector provider, including faith-based organizations, selected from a list of providers approved by the state.

—*U.S. Department of Education,* No Child Left Behind: A Desktop Reference 2002

The No Child Left Behind Act has created a substantial opportunity for e-learning providers to increase their role in public schools across the country. NCLB provides that schools must allow parents to select "supplemental educational services" (SES) for their children from a list of state-approved providers if their school does not meet performance goals for three years in a row. The amount of federal funds provided per student to pay for these services varies from less than $500 to more than $2,000 but is generally close to $1,000. Many of the state-approved providers in the Northwest and nationally are e-learning organizations.

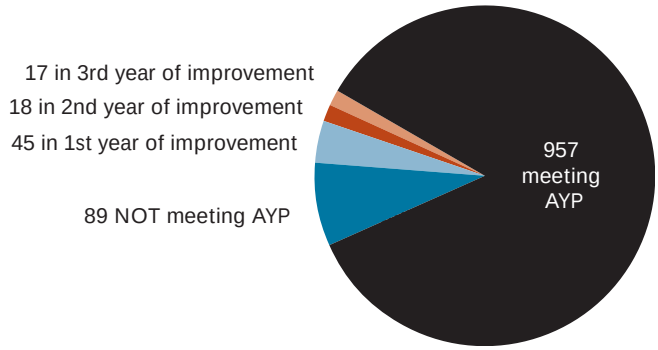
This year, less than 1 percent of Northwest public school students are eligible for supplemental educational services under No Child Left Behind. They are low-income students attending schools that are funded under the federal government's Title I program and have not met goals for "adequate yearly progress" for three years. The proportion of students who are eligible for SES is likely to expand over the next few years, though. Almost one in four Northwest public school students are low-income students in Title I schools (see Chart 1).

Chart 1: Percent of Low-Income Students in Title I Schools



In Washington state, for example, only 17 schools are required to provide SES to low-income students this year, but another 18 schools could be added to this list if they do not meet AYP goals next spring. Forty-five more schools are two years away from SES sanctions and 89 are three years away if they continue to miss AYP targets (see Chart 2).

Chart 2: Number of Washington Title I Schools by School Improvement Status 2004–2005 School Year



States are required to identify and maintain a list of approved supplemental educational service providers. Many of the approved providers are commercial e-learning companies and nonprofit organizations using e-learning packages. This table shows e-learning providers on the Northwest states' SES lists:

Provider	AK	ID	MT	OR	WA
Acadamia.net					X
Babbage Net School			X		X
Baker Language and Learning Center					X
Brainfuse					
Education 2020			X		
Education Station			X		
Elluminate		X			
Failure Free Reading					X
JRL Enterprises			X		
K12 Inc			X		X
Kaplan K12 Learning Services			X		
Plato (including Lightspan)		X			
Skillstutor (Achievement Tech)	X				

Sources: Chart 1—Based on data from National Center for Education Statistics, Common Core of Data; Chart 2—Based on data from the Washington Office of the Superintendent of Public Instruction; Table—State education agencies

END NOTE

Online in the Early Days

When remote computer terminals first hit the marketplace in the early 1970s, the Laboratory purchased one, keeping step as it always has with technological advancements. In this photo, shot in the board room of the Lindsay Building in downtown Portland, fascinated board members watch a demonstration of a teletype remote terminal. The terminal could exchange data and run programs through a commercial timesharing system operated over the phone lines.

Do you remember working on one of these old teletype terminals? Do you recognize anyone in the photograph? If you do, we'd love to hear from you—drop us a note at nwedufeedback@nwrel.org.

nwrel.org/nwedu

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Up next in the spring 2005 issue:
Science Under the Microscope

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