



Online Education: Closing Opportunity Gaps

by Timothy D. Snyder

Online education has the potential to change the face of public education far more than charter schools, vouchers, or any other structural mechanism spawned by the reform movement thus far.

Many youth, metaphorically disenfranchised by being labeled in their traditional schools as low-performing and high-risk, are turning to online learning with hope for a fresh start and equal chances to learn. No longer must they be content with the particular circumstances of their local school or next-door charter school. Students looking for alternatives to on-campus school attendance can choose from a growing number of full-time online schools. They can complete a rig-

orous K-12 education in a convenient location, and with schedule flexibility not available in a brick and mortar school. Additionally, online students learn technology skills in the process of covering the curricular content common to most schools. These technology skills are sorely needed as students transition to digital workplaces.

Opportunity gaps

Online education can improve opportunities for students in both large and small schools.

Small schools, particularly those in rural regions, cannot afford to offer the number and variety of courses available in large schools. A comparison of the number of courses offered by Colorado high schools shows that those with around a hundred students can only offer 35-50 courses, whereas schools with 1500 or more students typically offer over 200 courses.¹

Small schools also struggle with course content and quality as teachers assume multiple roles. For example, math teachers may have to cover science classes, physical education majors teach social studies, and the school counselor doubles as a foreign language teacher, or vice versa. More often than not, health—if even offered—is taught by anyone with a blank spot in a teaching schedule.

Small schools can close these gaps in opportunity and quality by importing online courses taught from a distance by

highly qualified teachers. Overcoming the twin limits of geography and local resources, online learning brings external resources through the schoolhouse door to both teachers and students.

At-risk students in large schools face their own opportunity and achievement gaps. While it can be argued that large schools offer many and varied opportunities, too many students fail to engage themselves in large-school systems.

Online learning can provide under-performing students with an environment that will 1) let them learn away from the social dynamics of a room filled with jeering classmates, 2) challenge them with the specific learning strategies they need to progress, 3) personally engage them in meeting that challenge, 4) remove the potential for personality conflicts between teacher and student, and 5) enlarge their technology and literacy skills.

The potential of online learning

The future is promising. Advances in technology applications and broadband access are creating seemingly endless possibilities. No longer is a cell phone just a cell phone, but rather a multi-function communication device. These advances open the door for on-the-go Internet access, communication, and education. Will computer labs go by the wayside as students bring their own devices to school?

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Today's generation of "Millennials" are specifically attuned to technology in all its forms. They have grown up without card catalogues and dials. They point and click. Analog is passé. Digital is in. Newspapers are for old people. Blogs are for the young.

Yesterday's tech skills will not make it in today's global economy. China and India have an astounding depth of intellectual capital.² They are connected and capable. Our challenge is to produce students with the knowledge, skill sets, and attributes needed to successfully compete with them.

The American penchant for convenience and personalized curricula, exhibited in the growing choice movement, contributes to the proliferation of online education. Parents like control and flexibility in fitting school into their frenetic schedules, rather than the anachronistic mode of adapting their schedules to those of their local schools. Home-school parents like the array of online offerings that can fill the gaps in home instruction. Parental concerns about the safety and social issues common to large traditional schools also cause migration to online environments.

The reform movement's mandate for universal proficiency trumps reliance on old-school opportunity. This, in itself, has pushed educators farther along the trail to change. It has been said that it took 40 years for the overhead projector to move from bowling alleys to classrooms. Today's pace of change, albeit slow, is accelerating from earlier times.

Although there is some negativism arising from concerns about online school access, accountability, and the specter of profiteering—e.g., Arizona has capped

the number of online schools, and the Pennsylvania School Boards Association is seeking a moratorium on online school start-ups due to funding concerns—present wisdom says that technology will continue to advance, and online education will continue its growth. National and state statistics illustrate this phenomenon:

- *Education Week* reported in its latest "Technology Counts" edition that twenty-two states have established virtual schools, with more states predicted to follow suit.³
- A survey by the National Center for Education Statistics of 15,000 school districts showed 328,000 public school students enrolled in distance education courses in 2002-03.⁴
- Ninety-nine percent of America's schools had Internet access in 2004 and 87 percent of their instructional computers had high-speed Internet access. Colorado's percentages were 99 percent and 86 percent, respectively.⁵
- Ninety percent of children between ages 5 and 17 use computers.⁶
- Ninety-four percent of online teens use the Internet for school-related research.⁷ Teens spend more time online using the Internet than watching television.⁸

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Types of online learning

Three broad categories of online learning can be identified in those states that allow online learning venues: 1) full-time online courses delivered to students at home, 2) part-time coursework exported from external sources to students in schools, and 3) courses developed and delivered within districts. It is not unusual to see districts deploying all three in various forms.

Full-time online schools offer a complete continuum of curricula leading to either a

high school diploma or grade-level exit promotion. Their courses can be home-grown or commercially developed.

Students can generally choose to enroll in a full-time online school from any location in their particular state. Some online schools provide students a computer and internet access. While two for-profit models call for parents to teach their children via online, school-facilitated curricula, many models have online teachers working directly with students. The larger full-time online schools offer counseling, special education services and curriculum support services.

Full-time online students most often access their coursework from home, with some schools facilitating face-to-face field trips for socialization and academic enrichment. Some models also require some onsite participation for instruction and counseling purposes.

Part-time (sometimes termed "supplemental") online learning programs provide individual courses for schools to use in expanding local curricular and delivery options for students. They work directly with schools to provide curriculum expansion, academic enrichment, credit recovery, dual-credit college programming, alternative coursework, summer school, courses for parents, and professional development for instructional staff. The most common model is for a school to enroll a student in a particular course which the student then accesses from school at an identified period during each school day. This minimizes issues of technology access, and increases the probability of student success due to the availability of onsite support.

Supplemental online learning is funded via grants and course fees paid by schools and/or students. One innovative national model has developed a barter system that relies on schools providing teachers which, in turn, qualifies those schools to enroll students at no cost in other courses. There are also for-profit supplemental online course providers that operate nationally. Supplemental online learning

is viewed as a means of strengthening traditional brick and mortar schools.

Many large districts are creating their own full- or part-time online courses to meet a variety of learning needs. Their multi-service approach provides in-house choices that are attractive to students and parents.

Obstacles to online learning

Schools must overcome major barriers to incorporating online learning tools in ways that contribute to powerful teaching and learning.

The most daunting is institutional will. Long-held traditions slow the pace of change. Education processes are dependent on a complex set of large and small decisions made by an integrated and changing network of administrators, counselors, teachers, parents, and students. School schedules at secondary levels are built around multiple needs. Onsite teachers take umbrage to any suggestion that teachers-at-a-distance may be more effective for some students.

Second is the issue of resources. There is always a push-pull between efficiency and services in tax-supported environments. People want more services at less cost. The costs of technology have been huge for schools in the past 20 years, and online instruction is often seen as an add-on to be paid for out of technology budgets.

Third is the lack of research concerning the efficacy of online instruction, though there is a growing body of evidence supporting the use of online learning.⁹ Recent studies conclude that teaching and learning with technology has a positive effect on student outcomes, including math learning.¹⁰ Weglinsky studied NAEP scores and found that using computers to teach higher-order thinking skills was positively related to the academic achievement of eighth graders in mathematics.¹¹

More particularly, online courses that provide visual tools, immediate feedback, and computation tools apparently enhance students' academic performance.¹² As a relatively new educational tool, however, further research concerning online instruction in specific applications and settings is needed.

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Fourth, educators are upside-down in their knowledge of the applications of technology in providing powerful teaching and learning experiences. In many—possibly even most—cases, students know more than their teachers in using technology applications. This presents unique challenges to educators, and presents a strong need for professional development. The goal would not be to re-tool teachers, but rather to help create new models of collegiality between teachers and students, further demonstrating the need for and application of lifelong learning.

Fifth, the unfunded mandate for state assessment is, in itself, a deterrent to powerful teaching and learning. State assessment programs are administered via pencil and paper. Student success on a paper-driven assessment is dependent upon instruction and practice in a paper and pencil environment.

Factors in successful online learning

Online learning is not the silver bullet for everything that has ever been perceived to ail public education. It is best used by experienced educators in settings designed for student success, and it has limitations.

For example, high-risk students need high levels of onsite support and supervision in a supplemental, in-school model. Since online courses are largely self-paced, a high-risk student can make up lost ground

in learning. The instruction is also more efficient because of the lack of distractions found in traditional classrooms, particularly those with high numbers of low-performing students. However, high-risk students bring with them traditions of defeat. The volume and presence of online coursework may deter students as well. An onsite facilitator/mentor with high expectations and a knack for engaging students will achieve success with high-risk online students. [The importance of a high-quality onsite facilitator/mentor cannot be overstated. One high school increased its student success rate for students enrolled in online courses from 53% to 90% by employing a person with an excellent combination of people skills and a no-excuses approach to course completion.¹³]

The full-time online model can be used with high-risk students, but provision for extensive support services will be needed to achieve success. As in traditional classrooms, individual motivation and self-discipline are two keys to success in online environments.

Students need the right reasons to participate in online learning. In the supplemental model, some students gravitate to online courses because they think they are easier and they can earn easy credit. They are disappointed in most cases. Some students switch to full-time schools because of the promise of a free computer, reimbursed internet access, and the freedom of earning a diploma from home. They, too, are disappointed in most cases. Generally speaking, online courses are rigorous, and require greater levels of motivation and discipline.

Highly motivated, high-performing, self-starting students do well in online environments. They enjoy the self-paced nature of instruction and freedom from the distractions found in traditional classrooms. Schools employing high-level teachers for limited numbers of advanced students could achieve similar results by enrolling high-performing students in cost-effective online courses. These highly

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skilled teachers could then be deployed on behalf of students needing more instructional assistance.

Implications for health educators

Online learning creates new opportunities for health education. While the following is intended to suggest resources and possible innovations for linking health and online education, it is recognized that many health educators may already be using these and other ideas as well.

Small schools must no longer rely on whoever happens to be available to teach health courses. They can select and offer high-quality health education courses taught by highly qualified teachers in an online format. If schools already have highly qualified teachers, but no prepared curriculum, they can contract with an online learning provider for the use of its online course content by the local teachers. For example, one high-quality health course for high school students can be found at www.col.k12.co.us.

Large and small schools can capitalize on the media hype for fitness amidst rising student obesity rates by linking health instruction with fitness via online instruction. One of the unanticipated benefits of online learning is that a surprising number of students who are reluctant to fully participate in traditional classroom environments due to real and perceived social pressures fully engage themselves in online courses where “no one is looking.” Students who never say a word in physical classrooms write volumes to their teachers in virtual classrooms. Health educators can use this knowledge to the advantage of these students by creating online health/fitness courses that give vital instruction and record benchmarks of improved health—while no one is looking.

Health educators most often teach students in isolation from their families.

Should schools consider creating online health courses that emphasize family involvement? Family fitness might be a place to start. School outreach could yield important unanticipated benefits as parents engage themselves and their children in new areas of school involvement and life-changing activity.

Savvy health educators are already using web resources for specialized, up-to-the-minute health-related information. School-based health-related web sites and blogs can also widen the reach of health education beyond those taking a health course. Personal health is a lifetime activity that deserves spotlighting. Students need credible sources of information about those areas of personal health that lead to critical choices.

Health educators might consider, too, developing health-related online modules that could be disseminated to statewide or national students, schools, and teachers. Online learning providers are looking for these types of offerings.

The importance of online learning to school health should not go unnoticed. Healthy schools strive for powerful learning environments. Powerful learning contributes to emotional health.

Despite the policy issues, the challenges of implementation, and the angst of competing philosophies, online learning is here to stay. It offers expanded choice and opportunity for students, parents and schools. Online education can close critical opportunity and achievement gaps while contributing to powerful learning and healthy schools, especially among today's digital students.

Dr. Timothy Snyder is the former superintendent of the Monte Vista and Sargent school districts in southern Colorado. He now serves as executive director of Colorado Online Learning.

Notes

¹Colorado Online Learning, January 2006.

²See Thomas Friedman's *The World Is Flat* for amplification.

³"Technology Leaders". (May 5, 2005). *Education Week*, 44-45.

⁴Patton, C. (May 2005). "Faster, Cheaper, Better". *District Administration*, 58-61.

⁵"Access to Technology". (May 5, 2005). *Education Week*, 46-47.

⁶*Young Children's Access to Computers in the Home and at School in 1999 and 2000*. (2003). Washington, DC: U.S. Department of Education, National Center for Education Statistics. ⁷Lenhart, A., Simon, M., & Graziano, M. (2001). *The Internet and Education: Findings of the Pew Internet & American Life Project*. Washington, DC: Pew Internet & American Life Project.

⁸Harris Interactive and Teenage Research Unlimited. (2003). *Born to be Wired: the Role of New Media for a Digital Generation—A New Media Landscape Comes of Age*. Executive Summary. Sunnyvale, CA: Yahoo! and Carat Interactive.

⁹With appreciation to Dixie Griffin Good of The Public Good, Inc. for providing the content and essential narrative of this paragraph.

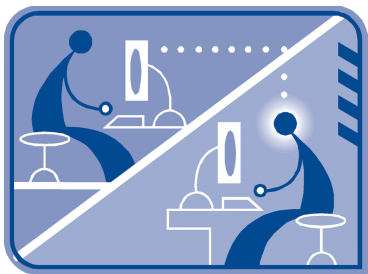
¹⁰Waxman, H.C., Lin, M., and Michko, G. (2003). *A Meta-analysis of the Effectiveness of Teaching and Learning with Technology on Student Outcomes*. Naperville, IL: Learning Point Associates. <http://www.ncrel.org/tech/effects2/>.

¹¹Weglinsky, H. (1998). *Does It Compute? The Relationship Between Educational Technology and Student Achievement in Mathematics*. Princeton, NJ: ETS Policy Information Center.

¹²Smith, R., T. Clark, and R. Blomeyer. (November 2005). *A Synthesis of New Research on K-12 Online Learning*. Learning Point Associates, 67.

¹³Soroco High School Case Study, The Public Good, Inc., 2005.





Online Learning: Selected Resources

RMC Board of Directors

The following resources are intended to provide background on and sources for the planning of distance-delivered health education. The articles, books, and web resources provide a glimpse at current practices and strategies in distance learning in general and for health education. The curricula provide free and for-fee examples of lessons addressing some of the health risk behaviors identified by the U.S. Centers for Disease Control and Prevention (CDC) or that can be considered consistent with the National Health Education Standards.

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Web

- Barron, A. (1999). *A Teacher's guide to distance learning on the web*. Retrieved March 6, 2006, from <http://fcit.coedu.usf.edu/DISTANCE/>
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Health Education Curricula

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RMC's K-12 Tobacco Prevention Initiative

Funding Opportunities

The Rocky Mountain Center for Health Promotion and Education (RMC) is pleased to announce continued funding opportunities for Colorado K-12 schools, districts and BOCES to focus on tobacco prevention. These funds are made available by the Colorado Department of Public Health & Environment (CDPHE) State Tobacco Education and Prevention Partnership (STEPP). Two major categories of funding will be available:

Three-year Grants

For Districts, BOCES or a Consortium of Districts to implement tobacco prevention initiatives

Applications available by March 17, 2006

Applications due: April 24, 2006

Regional meetings providing more information about this funding opportunity will be held April 3-5, 2006 in Pueblo, Denver and by conference call. Pre-registration is required.

One-year Grants

For schools or districts to implement tobacco prevention curricula, develop and enforce tobacco free schools policies or implement other special projects

Applications available by April 28, 2006

Applications due: May 26, 2006

Regional meetings providing more information about this funding opportunity will be held May 3-10, 2006 in Grand Junction, Colorado Springs, Alamosa, Fort Collins, Denver and by conference call. Pre-registration is required.

Detailed information is provided on our website: <http://www.rmc.org/pages/k12tobacco.html>

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RMC Welcomes New Staff!

Pat Lauer (Evaluation Director) comes to RMC from Mid-continent Research for Education and Learning where she served as Principal Researcher. She holds a Ph.D. in Experimental and Developmental Psychology from the University of Colorado and has conducted a wide variety of education research and evaluation studies. Her research emphases include teacher professional development and standards-based education. Pat has published several articles on her work and recently wrote *An Education Research Primer*, published by Jossey-Bass (2006).

Amy Dillon (Health Education Consultant, K-12 Tobacco Preventive Initiative) joins RMC from the American Lung Association (ALA). Amy worked for the ALA for over five years and most recently served as the Tobacco Program Manager, overseeing the statewide youth tobacco cessation program. Amy is currently pursuing her Masters of Education and Human Resource Studies degree with an emphasis in Adult Education and Training.

Carolyn Horcher (Administrative Coordinator) previously worked as a Recruiter for Express Personnel and also Manpower Temporary Services. She was an Administrative Assistant at Coors in the Media Department and also for attorneys at the University of Colorado at Denver.

Sheryl Tafoya (Resource Assistant, Prevention Information Center) earned her B.A. in Behavioral Health Science from Metro State College in May of 2005.

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Our Mission:

The Rocky Mountain Center for Health Promotion and Education provides health education training, technical assistance, and resources for the benefit of children, youth, and their communities.

Our Values:

- ^ Research to test the validity of our knowledge
- ^ The importance of family in children's lives
- ^ The process of human development
- ^ Diversity
- ^ The strength of community support