



Classroom News

Technology News for Today's Teacher



Obama calls for ed-tech investment

News analysis: GOP largely silent on 21st-century skills

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Business leaders are intensifying their call for schools to retool their curriculum. A new report makes a strong economic case for why students must learn key 21st-century skills. And Democratic presidential candidate Barack Obama has highlighted an education plan that addresses the need to meet rising global challenges.

As of press time, notably absent in these discussions has been any acknowledgment by Republican presidential candidate John McCain of the need for schools to teach 21st-century skills, or the role technology can play in doing so.

McCain's presidential platform does address educational technology, but only in the context of providing more choices for students and their parents. For instance, he says he would "reform" the Enhancing Education

Through Technology program—the largest single source of federal funding for school technology—by reallocating \$500 million in existing federal funds to build new virtual schools and support the development of online course offerings for students.

"These courses may be for regular coursework, for enhancement, or for dual enrollment into college," the McCain campaign's web site says.

In addition, McCain has proposed creating two new ed-tech programs. The first would allocate \$250 million through a competitive grant program to help states expand online learning opportunities. States could use these funds to build virtual math and science academies to help expand the availability of AP math, science, and computer-science courses, for example.

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The second would offer \$250 million in “Digital Passport Scholarships” to help students pay for online tutors or enroll in virtual schools. Low-income students would be eligible to receive up to \$4,000 to enroll in an online course, SAT or ACT prep course, credit recovery, or tutoring services offered by a virtual provider. The federal Education Department would award the funds to a national scholarship administrator, who would manage student applications and evaluate providers.

While these proposals could increase students’ access to high-quality educational content, including courses in the so-called STEM (science, technology, engineering, and math) disciplines, they don’t address what both business and education leaders say is a fundamental need for schools to overhaul their core curriculum in the face of new global challenges.

For the United States to remain globally competitive, U.S. schools must teach 21st-century skills such as problem solving, critical thinking, communication, collaboration, creativity, and innovation within the context of the core curriculum, says a growing chorus of experts.

At the annual Intel Developer Forum in San Francisco this summer, Intel Chairman Craig Barrett warned that if the U.S. doesn’t invest more money in research or redesign its schools and classrooms, its education system will fail. (See “Intel chair calls for ed reform, STEM innovation” <http://www.eschoolnews.com/news/top-news/index.cfm?i=55015>)

And last month, the Partnership for 21st Century Skills—a coalition of business and civic leaders that aims to

improve U.S. education—released a report arguing that U.S. schools must teach 21st-century skills for the nation to remain globally competitive. The report notes that the economy has changed significantly in the last 30 years, and information products and services now account for 63 percent of the country’s output (see “Report: Retool instruction, or U.S. will fail” <http://www.eschoolnews.com/news/top-news/index.cfm?i=55173>). The message: If we don’t align our curricula with the skills today’s students need to succeed, our nation is in trouble.

Speaking at Stebbins High School near Dayton, Ohio, on Sept. 9, Obama picked up this theme, noting that U.S. students are being outperformed by their peers in other countries on international benchmarks.

“Without a workforce trained in math, science and technology, and the other skills of the 21st century, our companies will innovate less, our economy will grow less, and our nation will be less competitive. If we want to out-compete the world tomorrow, we must out-educate the world today,” Obama said.

He added: “While technology has transformed just about every aspect of our lives—from the way we travel, to the way we communicate, to the way we look after our health—one of the places where we’ve failed to seize its full potential is in the classroom.

“Imagine a future where our children are more motivated because they aren’t just learning on blackboards, but on new whiteboards with digital touch screens; where every student in a classroom has a laptop at [his or her] desk; where [students] don’t just do book reports but

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7920 Norfolk Ave., Suite 900, Bethesda, MD 20814
Phone: (301)913-0115 • Fax: (301)913-0119
eMail: gdowney@eSchoolNews.com
Home Page: www.eSchoolNews.com

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CHIEF EXECUTIVE OFFICER

Rob Morrow, rmorrow@eschoolnews.com

PUBLISHER

Gregg W. Downey, gdowney@eschoolnews.com

MANAGING EDITOR

Dennis Pierce, dpierce@eschoolnews.com

SENIOR EDITOR

Barbara Schrader, bschrader@eschoolnews.com

SENIOR EDITOR

Paul Turchetta, pturchett@aol.com

SENIOR EDITOR

Laura Devaney, ldevaney@eschoolnews.com

ASSOCIATE EDITOR

Meris Stansbury, mstansbury@eschoolnews.com

PRODUCTION DIRECTOR

Chris Hopson, chopson@eschoolnews.com

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design PowerPoint presentations; where they don't just write papers, but they build web sites; where research isn't done just by taking a book out of the library, but by eMailing experts in the field; and where teachers are less a source of knowledge than a coach for how best to use it and obtain knowledge. By fostering innovation, we can help make sure every school in America is a school of the future.

"And that's what we're going to do when I'm president. We will help schools integrate technology into their curriculum, so we can make sure public school students are fluent in the digital language of the 21st-century economy. We'll teach our students not only math and science, but teamwork and critical thinking and communication skills, because that's how we'll make sure they're prepared for today's workplace."

The Obama campaign subsequently released more details about how it proposes to address this issue.

Obama proposes creating a \$500 million matching Technology Investment Fund that would build on existing federal ed-tech programs to help ensure that technology is fully integrated throughout U.S. schools.

According to the Obama campaign, this fund would:

- Help integrate technology throughout classrooms, so innovative learning technologies such as simulations, interactive games, and intelligent tutors can help improve the quality of instruction;

- Develop better student assessments that allow teachers and parents to identify and focus on students' individual needs and talents throughout the school year;
- Create new technology-based curricula with leaders in the technology industry, so schools can create courses that develop students' technology skills through project-based learning; and
- Use technology to help teachers work collaboratively with their peers across the country and provide more personalized assistance to students.

National ed-tech organizations declined to compare the Obama and McCain education plans, citing their need to remain nonpartisan as a result of their nonprofit 501(c)(3) tax status.

But Mary Ann Wolf, executive director of the State Educational Technology Directors Association, said she was "very pleased to see Obama's plan highlight ed tech."

"We look forward to discussing [with both candidates] the potential for technology ... to serve as a catalyst for transforming our schools for the 21st century," Wolf said.

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School libraries try to do more with less

This fall, school libraries across the country will be working to implement new standards for learning in the 21st century—but many will be doing so with fewer resources at their disposal.

The American Association of School Librarians (AASL) has released a set of "Standards for the 21st Century Learner," which update the organization's 1998 Information Literacy Standards to reflect changes in the learning environment over the last decade.

The new standards come as budget cuts are threatening the job security of many library media specialists and are making it hard for school libraries to implement new programs.

"Because the No Child Left Behind Act does not address the direct correlation between school library media specialists and academic achievement, school library budgets that are not protected on the state level are being cut ...

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to meet local budget constraints," said AASL President Ann Martin.

That could pose a challenge as school media centers work to roll out the AASL's new standards this school year.

The standards call for students to use an inquiry-based process, accept responsibility for what and how they are learning, and evaluate their learning.

AASL drafted the new standards with help from a task force made up of college educators, state education officials, and school and district media specialists.

"Our research concluded that the term 'information skills' was not going to work, because it was too narrowly focused: Our students must be competent in multiple literacies," said Martin. "These learning standards are visionary and will encourage students' intellectual and personal growth through four strands: skills, dispositions, responsibilities, and self-assessment."

According to AASL, the key skills students need for understanding, learning, thinking about, and mastering subjects are developmental. They include learning an inquiry-based process for seeking knowledge, organizing knowledge so that it's useful, evaluating resources for their validity and accuracy, and understanding material presented in a wide variety of multimedia formats.

The dispositions students need to succeed indicate the beliefs and attitudes that must guide their thinking and intellectual behavior. For example, students must display initiative in asking questions beyond the collection of superficial facts, and they must use self-direction and demonstrate adaptability.

Student responsibilities include respecting copyright, seeking different viewpoints, and contributing to an exchange of ideas.

Finally, self-assessment requires students to reflect on their own learning. Students must monitor their own information-seeking processes, use interaction with and feedback from teachers, and develop directions for future investigations.

Already, state education agencies in Colorado and Indiana, as well as individual school districts in Florida, Illinois, Nebraska, Nevada, Tennessee, and Virginia, have begun to adopt the new standards. AASL also says many database publishers are reworking their products to incorporate them.

The national school librarians association has three additional task forces working on documents and resources to accompany the new learning standards: one to develop a comprehensive, three- to five-year national implementation plan; one to develop indicators, benchmarks, examples, and assessments based on the standards; and a third to create new teaching guidelines to support them. All task forces are expected to complete their work by the end of the school year.

Cassandra Barnett, a National Board Certified Teacher and librarian at Fayetteville High School in Arkansas, said her school will "begin integrating the new standards into the lessons and units we teach in collaboration with classroom teachers." She added: "These standards are way beyond what has gone before, and it is going to take a little time to get comfortable with them."

Jobs in jeopardy

Adding to the challenge for many schools are budget cuts that are putting library media specialists' jobs in jeopardy.

One high-profile example is in Mesa, Ariz., where the Mesa Public School District is on the verge of eliminating all of its library media specialist positions over the next three years.

The district's plan is to move its librarians into the classroom to become teachers, replacing them with support staff. Of the district's 78 school librarians, 47 retired or decided to return to classroom teaching this school year, reports the Arizona Republic.

Like many states, Arizona doesn't have dedicated funds for school libraries, and it doesn't require certified media specialists at any grade level. School libraries and library media specialists are controlled at the district level and not by the state education department.

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Mesa officials say their plan comes in response to an estimated \$20 million reduction in its 2008-09 operating budget—caused both by a decline in student enrollment and attempts to remedy the state's \$1.2 billion deficit.

According to Assistant Superintendent for Curriculum and Instruction Susan DePrez, the libraries would be run by “resource center specialists”: full-time, 40-hour classified positions that must undergo specialized training but do not require a teaching certificate.

However, the district's governing board says it's open to other suggestions. As an alternative, some are proposing the creation of several regional librarian positions to oversee the new library aides who will replace Mesa's exiting certified media specialists.

Another suggestion is to have certified librarians distributed over several schools. That's a trend that is happening elsewhere in the country, including Nevada.

“In Nevada, school media specialist positions have been consolidated to cover more schools,” said Robbie Nickel, school media specialist at Sage Elementary School in Spring Creek, Nev. “In some school districts, aides or staff without library certification cover elementary schools. In the Elko Country School District this year, one elementary school library position was not filled, and school media specialists from two nearby schools are reducing time at their own schools to provide service to the school without service.”

“This year, [owing] to budget restraints, we have lost our second media specialist position in our high schools, regardless of the number of students enrolled,” said Louis Greco, director of media services for St. Johns County Schools in St. Augustine, Fla.

Though Arkansas mandates that every school employs a state-certified school library media specialist, there are no requirements for library aides or clerical help, and there is no state-mandated minimum budget, said Fayetteville's Barnett.

“What I have seen in my state is the cutting of aide time or eliminating an aide position altogether,” she said. “A

few years ago, we went from two full-time aides to one aide. We had about 1,600 students then; we now have about 1,900 students. Library budgets in the state have been cut, frozen, or asked to absorb costs that used to be paid from other budgets.”

Barnett added: “My district has also eliminated its district library supervisor position. This has profoundly affected our library program. Building librarians have had to absorb district duties, which cut into the services provided at the building level. There is no one at the district level to help district administrators to see the big picture in terms of the library program. When we had a book challenge issue a few years ago, there was no one at the district level who knew the policy well enough to keep some pretty big mistakes from getting made.”

Martin, the AASL president, said cuts are happening sporadically for now—but as the economy becomes more of an issue, the threat of cuts to school library services will become even more widespread.

“The elimination of teacher-libraries seems to be a trend in states where school budget cuts force drastic measures, such as staff reduction and the elimination of critical programming,” she said.

Especially disconcerting

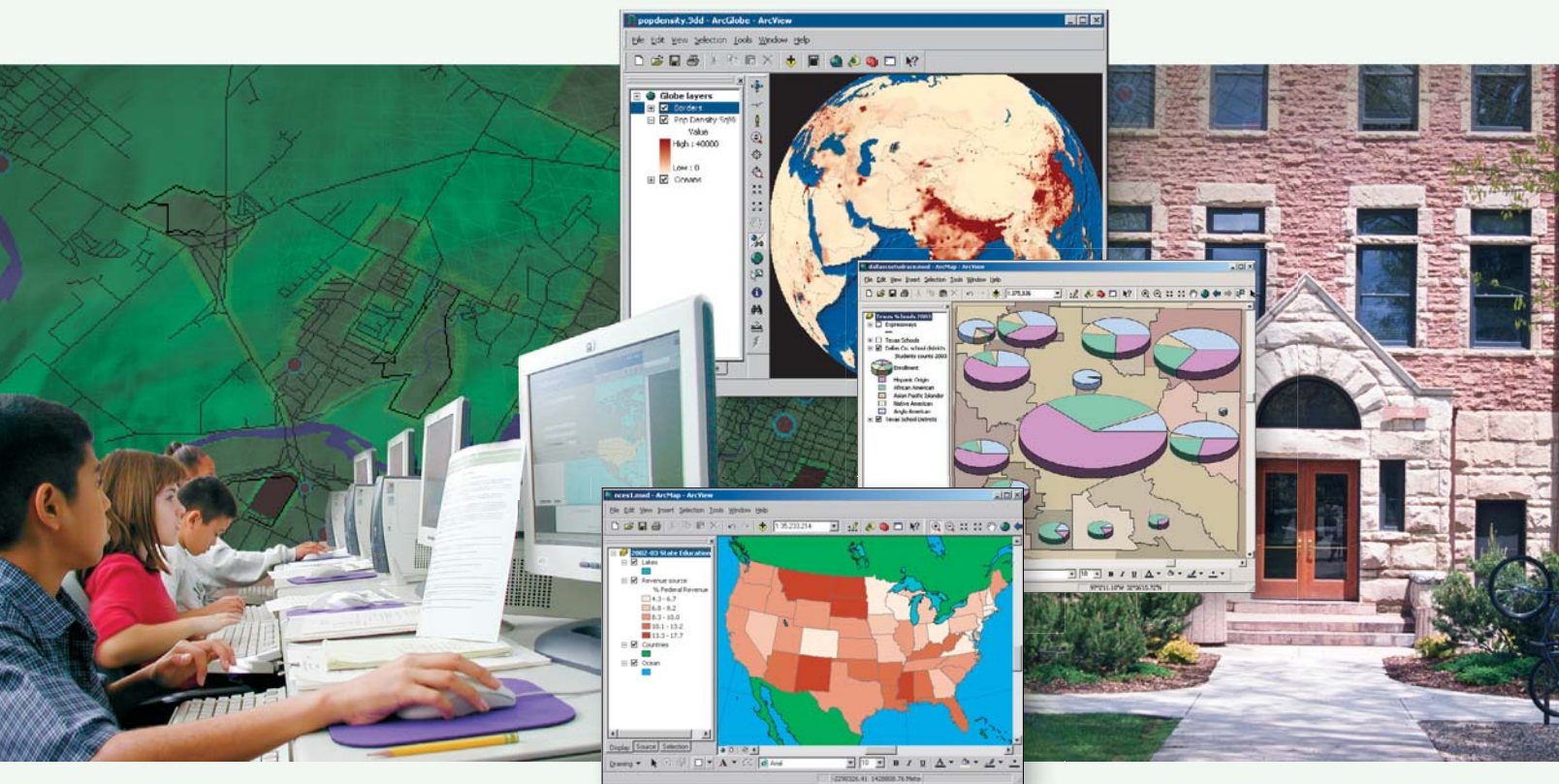
The loss of media specialists is especially disconcerting in light of a recent study—the Public Library Association's “2007 Public Library Data Service Statistical Report”—which found that nearly 70 percent of students ages eight to 18 use their school library more than once a month, and 60 percent also sought out materials for personal use from their school library.

“Students and their families have [fewer] economic resources to purchase what they need for school projects,” said Greco. “The school library allows students equal access, regardless of their personal economic situation, to complete academic tasks.”

Nickel agreed: “Students need to learn how to use and evaluate the internet as a resource. For some students, school is the only place they have internet access [com-

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GIS Matters in Education: Addressing Challenges, Providing Solutions



Geographic information system (GIS) technology and processes are more commonplace every day. Their application to planning and decision making is evident in numerous fields and industries as they address challenges and provide solutions. This includes education.

Instruction

Challenge: To be globally competitive and live and work in the 21st century, students must be strong problem solvers and geographic thinkers.

Solution: A new report from the National Research Council¹ and a new campaign led by the National Geographic Society² show the importance of geographic literacy and GIS in preparing students for the future. GIS helps students tackle robust classroom content in diverse subject areas, integrating and analyzing information to solve real-world problems from a local to global scale. The President's High-Growth Job Training Initiative³ shows that workers skilled in GIS and other geospatial tools and methods are in high demand and are valuable assets to our economy and communities.

1. <http://books.nap.edu/catalog/11019.html>
2. www.mywonderfulworld.org
3. www.doleta.gov/BRG/JobTrainInitiative

Administration

Challenge: To manage schools and districts effectively, administrators need tools and approaches that aid in planning, decision making, and communication.

Solution: All aspects of a school district have a geography. Some are mobile such as students and buses; others are fixed such as buildings or fire exits. All have locations, characteristics, and relationships, from the community at large to the

microenvironments within a school. GIS technology helps integrate operations and improve efficiency in areas such as demographic analysis, student transportation, school safety, facilities mapping, logistics, and data dissemination.

Research and Policy

Challenge: To ensure excellence in education, researchers and policy makers must have tools and strategies to visualize and analyze critical data about needs, expenditures, compliance, and success.

Solution: The No Child Left Behind Act has made data-driven decision making a standard within local, state, and national education programs. GIS offers a geographic way to visualize and analyze education data—district progress, per-pupil spending, distribution of federal funds, community demographics and performance, and countless other variables—in a way that tables and charts alone cannot. GIS tools and methods support an integrated analysis of factors affecting education and, ultimately, students themselves.

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bined] with [a] structure for learning [its] appropriate use. The media center becomes a level playing field for access and use of this resource.”


AASL believes eliminating the positions of media specialists who are certified and trained in 21st-century literacy and technology skills will cost school districts more in terms of academic achievement over time.

“Cutting back on the district’s library media program at a time when students need more help with literacy, not less, and more instruction in dealing with the effective use of information, could cause a serious effect on students’ achievement,” said the organization.

According to data from the U.S. Department of Education’s “America’s Public School Libraries: 1953-2000,” public schools with library media programs decreased from 96 percent in 1993-94 to 92 percent in 1999-2000, and library expenditures per pupil, excluding salaries, increased only slightly during the same period, from \$15.60 to \$15.70—not enough to help implement 21st-century learning strategies.

AASL recently started a longitudinal study called “School Libraries Count,” and library media expenditures are one area the group is tracking. AASL hopes the study will produce valuable information to help support school library media programs.

“Information fluency is increasingly important; if you can’t access and assess information, you lose,” said Laura Pearle, an independent school librarian from the Hackley School in New York. “Economic downturns don’t last, and revamping a program will take more money than it would to keep it going.”

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AASL’s Standards for the 21st Century Learner
<http://www.ala.org/ala/aasl/aaslproftools/learningstandards/standards.cfm>

Public Library Association
<http://www.ala.org/ala/pla/pla.cfm>

Public libraries struggling to meet internet demands

New studies by the American Library Association (ALA) and the Public Library Association (PLA) find that America’s public libraries are serving more people online, including students. But as more patrons demand access to internet resources, libraries are struggling to keep up with this demand—and they say they need more funding, infrastructure, and staff.

One study, “Libraries Connect Communities: Public Library Funding and Technology Access Study 2007-2008,” conducted by the ALA and the Information Use Management and Policy Institute at Florida State University with support from the Bill and Melinda Gates Foundation, found that 73 percent of all libraries (and 83 percent of rural libraries) are the only source of free public access to computers and the internet in their communities.

This access has become even more important as families across the country struggle economically, the report says.

As a result, many libraries have begun reporting double-digit growth in computer usage in 2008.

A key finding of the study is that more and more students are using public libraries for online homework help and other key assistance.

A recent poll conducted for the ALA by Harris Interactive, which surveyed 1,262 youths between the ages of eight and 18 on their library use, found that 31 percent visit the public library more than 10 times a year.

According to the “Libraries Connect Communities” study, public libraries reported increases in providing audio books and podcasts (available in 71 percent of U.S. public libraries); digital reference via eMail, instant messaging, and chat (62.5 percent); eBooks (52 percent); video (49 percent); and online instructional courses (43 percent).

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Yet, although libraries have increased their connection speeds to allow for more internet services, more than half of libraries say their access speed is inadequate to meet community demands.

As one librarian stated, "Our IT department looked at our bandwidth (1.5 Mbps) and found that at 2 p.m., it was slower than dial-up, we had so many people using it."

Applications such as multimedia and distance education, combined with near-constant online use and shared wireless and desktop connections, strain available bandwidth in public libraries—which has important implications for education. For instance, the Delaware County Library System in Pennsylvania delayed offering an online tutoring service for students until its 1.5 Mbps connection was upgraded to fiber optics earlier this year.

Another challenge libraries face is flat local funding. In response, many libraries have shifted to "soft" funding sources—fees or fines, donations, and grants—as a way to support public computing services.

The report found that staffing levels—both for staff who provide training and other direct patron services, as well as for staff who maintain IT infrastructure—are not keeping pace with patron demand. Libraries cite the need for

greater staff expertise and availability as a barrier to supporting and managing access to technology.

Other problems include lagging IT support, shortage of IT-knowledgeable staff, limited funding for hiring trained staff, and ill-equipped buildings and infrastructure.

For example, more than three-quarters of libraries, or 78 percent, reported that space limitations are a key factor when considering adding public-access computers. Another 36 percent reported the lack of available electrical outlets, cabling, or other infrastructure as a barrier—up from 31 percent in 2006-07.

In response to these challenges, many public libraries have added wireless internet access to support patrons bringing their own computers to the library, or to support laptop check-out programs for in-library users.

"Public libraries connect people to books, technology, and educational programs—in the building and online—so they can remain informed and engaged citizens," said Jill Nishi, deputy director of the U.S. Libraries Initiative of the Bill and Melinda Gates Foundation. "Local governments, businesses, and private foundations must work together and help libraries secure and sustain the funding they need to continue to meet their communities' unique needs."

Digital debate: Prepare kids for exams—or life?

An Australian educator's decision to let students use cell phones and the internet during exams has prompted a global dialog about the nature of 21st-century assessment—and whether the definition of cheating should be changed in light of ubiquitous technology use.

Students at Presbyterian Ladies College (PLC), a private girls' school in Sydney, Australia, are participating in a pilot project in which they can use cell phones, the internet, and can even call a friend or relative to help them with an exam question.

Dierdre Coleman, the English teacher who is overseeing the pilot, told the Sydney Morning Herald that "purely memory-based assessment is increasingly irrelevant in

the modern world" and that perhaps it's more important to measure a student's ability to gather information than his or her ability to memorize it.

Peter Reimann, an education professor at the University of Sydney, said students now have access to information resources online and in their social networks, and they are using social-networking web sites to exchange school-related information, in addition to using eMail and chatting online.

"'Social capital' is no longer only relevant for students' well-being—it's increasingly becoming directly relevant for academic achievement as well," he said. "The line

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between 'learning from technology' and 'performing with technology' needs to be carefully revisited all the time. The question is not either-or, but what is ... the right mix?"

Today, we would find it strange if students were not allowed to use paper and pencil when being tested, Reimann continued.

"But paper and pencil are technologies, just as computers and phones are. They are just a bit older," he said. "And just as paper allows us to offload some of the cognitive load involved in challenging problems onto a medium—[when was the last time you] tried to solve a calculus problem in your head alone?—so do computers and communication technologies; they allow us to offload even more cognitive tasks onto our physical and social environment. Arguably, that's the only way mankind is able to achieve the highly complex tasks we need to achieve today."

He added: "The fact is, we are increasingly making technology part of the teaching and learning situation—but we are not keeping up in aligning assessment sufficiently."

That results in two negative outcomes, Reimann said. First, students notice the discrepancy and don't see the point of the technology, the assessment, or both; and second, educators are underestimating what students know and can do, because students are being assessed in a manner that does not take into account the nature of 21st-century learning—they're being cut off from the resources and tools they are familiar with.

As for whether using technology in assessments is a good idea, Reimann said it's more a question of what technologies are being used.

"There is not much meaningful assessment without technology," he said. "It's only a question of which technology, and of the alignment between technology in the learning situation and in the assessment situation."

According to the Sydney Morning Herald, William McKeith, PLC's headmaster, said he was inspired to cre-

ate the pilot after hearing the thoughts of Marc Prensky, an international education consultant.

"It's not that we want kids to cheat," Prensky said. "It's that the definitions of learning, cheating, researching, and collaborating are changing right in front of our eyes."

The ideas about how people find information are very fluid, he added, and that can be seen perhaps most easily in medicine, where medical students and doctors are allowed texts in which to look up the answers to questions—but what is most important is knowing which questions to ask.

"The key thing isn't the information, it's why is it important; ultimately, it's a thought question," Prensky said. "That's where we really want to go with that stuff, and lots of teachers say they can ask harder questions [that way]."

Many adults believe education should be the same as it was when they were in school—but that was a time before digital technology and the internet, Prensky said.

"If you want to give your kids the education you received, we can do it, and we can make sure there's no technology—that will prepare your kids real well for the 20th century," he said. "If that's what you want, we can do it."

He concluded: "We're preparing [students] for life, not for exams—that's what it has come down to with [No Child Left Behind], but that's a silly thing to prepare people for, because you really want to prepare them for life and work."

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Bill boosts public TV's teaching potential

'Ready to Compete Act' would open public television archives for educational use

Schools across the country soon could have online access to a vast amount of educational content from public television archives to help raise student achievement, if a new bill called the Ready to Compete Act (H.R. 6856) is enacted.

Co-sponsored by Reps. John Yarmuth, D-Ky., and Ray LaHood, R-Ill., the bill would reauthorize two existing federal programs: Ready to Learn, which aims to improve literacy by encouraging the creation of educational public TV programming, and Ready to Teach, which intends to boost teacher quality through the development and use of public TV content for teacher professional development.

In addition, the bill would create two new programs: Ready to Achieve and Ready to Earn. Ready to Achieve would create a national, on-demand, online digital media service that would allow teachers to access public television's extensive archives of educational content. Ready to Earn would allow stations to create new resources to address the needs of adult learners in a changing economy.

The goal behind both of these new initiatives is to prepare learners more effectively for the 21st century workforce by tapping into the potential of digital technologies to explore science, technology, engineering, and math (STEM) disciplines, as well as history, literacy, and other subjects.

The Association of Public Television Stations (APTS) believes public television is uniquely suited to help bridge in-school and out-of-school learning by providing educational services anytime, anywhere. As an example, it cites Cyberchase, a children's animated TV series that helps kids learn math—and which just won a Daytime Emmy Award for "Outstanding Broadband Children's Program."

Produced by Thirteen/WNET New York and Nelvana Ltd., and funded by the National Science Foundation, the

show reportedly has 5 million viewers every week—and its companion web site, Cyberchase Online, has had more than 1.7 billion page views.

According to a study conducted by MediaKidz Research & Consulting, students who watched Cyberchase found solutions to math problems that were mathematically more sophisticated than students who did not watch the series. (Read the study here.) <http://pbskids.org/cyberchase/parentsteachers/show/philosophy.html>

Programs like Cyberchase reveal that educational programming can directly affect student learning, APTS says—and though STEM-focused digital content for classrooms has grown in recent years, Ready to Achieve would expand upon these initiatives and help schools better meet 21st-century demands.

APTS also supports the creation of Ready to Earn, citing a 2000 U.S. Census finding that more than 39 million adults in the United States (18 percent of the U.S. adult population) lacked a high school diploma.

"More than 1.5 million individuals have used public television's materials to prepare for and pass the GED exam," said Mark Erstling, the association's acting president and CEO. "Of those 1.5 million individuals, 70 percent are now in the workplace earning \$9,152 more per year and paying an average of 28 percent in federal tax." Public TV's GED preparation materials have helped those workers contribute more than \$2.6 billion in additional U.S. tax dollars last year alone, APTS says.

Some local public TV stations already have begun to develop digital content initiatives similar to the ones authorized under Ready to Achieve, but on a smaller and more local scale.

One instance is Maryland Public Television's Thinkport.org web site, which "provides Maryland teachers with high-quality, educational digital content

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for use in classrooms, much of which is already aligned to state standards, in addition to other education resources," said Erstling.

Boston's WGBH also has been working to digitize educational content from such shows as Frontline and Nova and is "providing standards-aligned program clips to teachers. Much of that content is math- and science-focused," he said.

On a national level, "APTS has been working with its public broadcasting partners to develop the American Archive, an initiative that would seek to digitize, metatag, and make available to the public the vast archives of public television content stored at stations around the country," Erstling said. (See "Open access to public TV content sought.") <http://www.eschoolnews.com/news/top-news/index.cfm?i=45512&CFID=2844512&CFTOKEN=46694510> The new bill would hasten these efforts and provide federal funding to support them.

"Ready to Achieve will give teachers access to a vast database of educational programming without needing to rent or purchase DVDs," said Yarmuth. "Ready to Earn will extend this capability to the workforce, providing online and digital training materials to help workers evolve with the changing needs of today's economy. By making public television a partner in our workforce training initiative, we can create flexible programs to help all workers develop new skills for employment. ... I intend to make Ready to Compete top priority of this effort in the 111th Congress."

As of press time, H.R. 6856 had been referred to the House Committee on Education and Labor.

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U.K. classrooms test 'smart desks'

Interactive desktops could become a critical learning tool in classrooms worldwide

Classroom desks soon could serve as interactive computer screens sensitive to the touch of several students simultaneously, if a pilot project in Britain's classrooms is an indication of things to come.

Researchers at Durham University in England are working with software company SynergyNet to develop the next-generation desktops, dubbed "Star Trek desks" by a university spokesman and commonly known as "smart desks." The desks allow students to use touch-screen capabilities to do class assignments and exercises while a teacher monitors students' progress from a central screen near the front of the classroom. The screen reacts like a small interactive whiteboard and also can be used as a keyboard.

The interactive desks were first unveiled in a classroom Sept. 16, and researchers will continue to test the technology at all grade levels over the next four years.

Liz Burd, leader of Durham University's Technology-Enhanced Learning Research Group, said developers aimed to create a product that would allow widespread use in any classroom, eliminating the all-too-common problem of only a few students having access to school technology.

"We are interested in the nature it can support collaborative learning and also in the way in which integrating a computer into a desk and allowing any number of touches ensures that everyone has equal access to it," Burd said in an eMail message to eSchool News. "Part of our design and testing will be to ensure that the user interface is very intuitive, so teachers can use it very easily and they do not need to spend a lot of time learning how to use it."

Durham researchers last year announced the desk would "act like a large version of an Apple iPhone."

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Burd did not specify how much the smart desks will cost when they're distributed to schools worldwide, but she said software designed for the desktops will be free for schools that purchase the smart desks themselves.

"We hope that soon the price will come down, so this will make it more affordable for schools," Burd said, adding that the initial price could be similar to that of an interactive whiteboard, which cost between \$1,200 and \$2,500 apiece.

Teachers and K-12 administrators said the "Stark Trek desks" being tested in England could be an asset for any teacher hoping to incorporate advanced technology in everyday lessons and might one day replace "move-to-use" whiteboards.

"This is an area where I believe technology will be a true resource for our teachers and students," said Marc Liebman, superintendent of the Berryessa Union School District in San Jose, Calif. "Certainly our students are already moving in this direction, and to expand the possibilities for students to collaborate using technology ... will only help more students be more successful learners. This type of technology is where our youngsters are moving already, with everything from [the Nintendo] Wii [to] cell phones [and] interactive computers."

The interactive desks, Liebman said, would maintain students' attention and attract technology-savvy educators to schools that have invested in the smart desks.

"I would also think that this would be a joy to teach with for teachers who are comfortable using technology as a teaching resource," he said.

Durham University's research team found that male students are often the "dominant actors" in a classroom setting, meaning female students get shortchanged on time spent with school computers. Buying desks that allow more than one student to use the device simultaneously could be a way to even the playing field for female students and those whose disabilities inhibit them from easily accessing technology, Burd said.

Liebman said he hasn't noticed consistent differences in the assertiveness of male and female students as a teacher or a superintendent. But technology like Durham University's interactive desks could be inviting for every student, he said—including girls and boys who are usually reluctant to participate during class.

"The shy kid can play a role in that, as well as well as the alpha-male type," he said. "And kids do work better when they work in groups, so if you can have groups, it's got to be a better thing for kids."

Mobile classroom project poised to expand

Organizers want to expand a pilot program in a rural Arkansas school district that equipped students with laptop computers or video iPods so they can study science and math while riding to and from school on the bus.

The Aspirnaut Initiative began last year in the Sheridan School District, which covers 600 square miles. (See "Schools ride emerging trend: Bus-based connectivity." <http://www.eschoolnews.com/news/top-news/index.cfm?i=45975&CFID=2844512&CFTOKEN=46694510>) The intent of the program is to have students spend their time on the bus productively.

Aspirnaut Initiative director Julie Hudson, a professor at

Vanderbilt University, said the program—which has proven successful on a pilot basis—could help the state with its long-term goals in preparing students to enter the workforce.

"There are many students in rural Arkansas, and many rural states in the United States, who have the challenge of long bus rides. There is a tremendous challenge in that that's a lot of time each day ... perhaps up to one-and-a-half to two hours on the longest routes each way, each day of the week," Hudson said while addressing a session of the House and Senate education committees last week.

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The state has been focusing on courses that make students ready for life after high school—the so-called STEM subjects of science, technology, engineering, and math.

Hudson developed the program with her husband, Vanderbilt professor Billy Hudson, who is a native of Grapevine, Ark., in the Sheridan School District. The pilot program was developed as a partnership with the university and the school district.

Julie Hudson said the pilot program has been a success, and coordinators reportedly will ask the state Legislature in their coming session to fund an expansion. Hudson said 2,000 students could be added for each of three years at a cost of \$2 million the first year and \$1.5 million for each of the remaining two years. She said the program would be spread equally among the state's four congressional districts, though school districts would have to apply to enter the program.

So far, Sheridan students in the pilot program have completed 14 semesters of study in addition to their regular course load. That includes one student who completed a

year-long Advanced Placement biology course and earned a score of 4 on an AP test. The tests are graded on a scale of 1 to 5, with a "3" considered a passing grade.

Mena School District superintendent Diann Gathright said she is interested in the program for her district. She said some students have daily bus rides of up to an hour and 15 minutes each way.

State Sen. Jim Argue, D-Little Rock, who chairs the Senate Education Committee, said program would require relatively little funding. He said the state already pays \$185 per student in technology funding, but districts are only spending \$58 per student on technology out of those funds.

Hudson said students who don't have long bus rides could take part in the program by arriving at school early or using study-hall time to work on the courses.

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Survey: Nearly every kid a video gamer

A new national survey from the Pew Internet & American Life Project illustrates just how ingrained video games have become in youth culture—a phenomenon with important implications for 21st-century learning.

The survey found that while young Americans don't necessarily play the same thing, nearly all of them—boys and girls—play video games of one kind or another.

And they don't just play by themselves. Nearly two-thirds play video games to socialize face-to-face with friends and family, while just over a quarter said they play with internet friends.

"It shows that gamers are social people," says Amanda Lenhart, a senior researcher at Pew who led the report on the survey. "They communicate just as much. They spend time face-to-face, just as much as other kids. They eMail and text."

The survey, released Sept. 16, combined the telephone responses from a nationally representative sample of 1,102 young people, ages 12 to 17, and their parents. Performed from November 2007 through February of this year, and partly funded by the MacArthur Foundation, it had a margin of error of three percentage points.

Among other things, the survey found that:

- Ninety-seven percent of young respondents play video games. That's 99 percent of boys and 94 percent of girls, with little difference in the percentages among various racial and ethnic groups and incomes. In fact, 7 percent of those surveyed said they didn't have a computer at home, but they did have a game console—such as Sony Corp.'s PlayStation, Microsoft Corp.'s Xbox, or Nintendo Co.'s Wii.
- They play often. When surveyed, half of the respondents said they had played a video game the previous day.

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- Their games of choice are as diverse as their tastes in music or TV. Eighty percent of respondents play five or more different game genres, with racing, puzzles, sports, and action the most common. Favorites were Guitar Hero, Halo 3, Madden NFL, solitaire, and Dance Dance Revolution.
- Young people are routinely able to get their hands on games that are rated “M” (for mature) or “AO” (adults only). Three-quarters of parents who were surveyed said they “always” or “sometimes” check the ratings on their kids’ games. And yet, half of boys who were questioned listed a game with an “M” or “AO” rating as one of their favorites, compared with 14 percent of girls.

Regardless, Pew researchers said they want to steer clear of depicting video games as “good” or “bad,” says Joseph Kahne, a study co-author and dean of the education school at Mills College in California.

He noted, for instance, that even games with violent content, such as Halo, provided “more than average opportunities for players to help one another.”

Kahne also looked at games’ effect on civic engagement—anything from political involvement to raising money for charity. He found that those who spent the most time playing video games weren’t any less likely to be involved in their communities.

The survey did, however, find that those who played games in face-to-face social settings were more likely to

say they were committed to civic participation.

Mimi Ito, an anthropologist who studies the use of new media, said more research is needed to explain this phenomenon. But she speculates the ties that gamers make with “real-life local friends” stimulate civic engagement.

“Gaming is the reason to get together—but they’re probably talking about other things,” says Ito, who’s based at the University of Southern California’s Annenberg Center of Communication.

For this and other reasons, Ito cautioned parents against negative stereotypes about video games.

How young people play a game, she says, is as important as what they play.

To that end, Jesse Schell, a professor of entertainment technology at Carnegie Mellon University, hoped the report would encourage parents to learn more about the video games their children play.

“If more parents would take the time to play the same things their children are playing—or even better, play with them—it would benefit both parents and children,” says Schell, who teaches video game design.

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Pew study: “Teens, Video Games, and Civics”

http://www.pewinternet.org/PPF/r/263/report_display.asp

Buried in eMail? Try these six tips to dig out

“You’ve got mail!” Remember when that alert sounded thrilling?

Today, not so much.

As scores of electronic messages pour into school eMail in-boxes and spill onto cell phones and handheld devices, the flood often leaves teachers and administrators feeling overwhelmed. But take heart. In just a moment, you’ll learn six strategies experts say will put you back in control of your eMail and rescue your endangered productivity.

“We’re like frazzled lab rats, being poked and prodded and beeped and pinged,” says Maggie Jackson, author of *Distracted: The Erosion of Attention and the Coming Dark Age*.

The average employee in the United States receives 200 eMail messages a day, according to the business and technology research firm Basex in its report “Information Overload: We Have Met the Enemy and He Is Us.”

It’s an unfortunate irony that a system once lauded for

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its promises of efficiency has filled hours on the job with wasted, fragmented time.

Basex found that eMail correspondence and other interruptions decrease productivity for U.S. companies at a cost of more than \$650 billion per year for billions of lost man hours. For school employees, more time spent keeping up with eMail means less time focused on teaching and learning.

Constant access to information, communication, and technology has become such a big issue, experts say, that its implications go beyond a lack of productivity and focus at work. eMail and information overload also eats into the quality of relationships both at school and at home.

"Attention is the bedrock to learning, memory, social connection, and happiness," Jackson says.

And yet, at many schools and businesses, a culture is developing that rewards immediacy over focus, so that attending to what's new at any given moment takes precedence over long-term goals. The result? A series of interruptions, such as eMail, that get in the way of the big-picture goals.

"eMail is being used like a drug to get a hit of accomplishment when one feels he is spinning his wheels," says technology analyst Craig Roth in his blog, KnowledgeForward.

In July, the Information Overload Research Group, a non-profit organization with members from technology companies and other industry experts, was launched with the mission to raise awareness of how current communication tools can impede productivity.

And the industry that created this problem is also trying to capitalize by helping people organize their in-boxes.

A program called C-MAIL promises to help prioritize eMail by learning through the user's clicks about what is more or less important.

The makers of Xobni, which is "inbox" spelled back-

wards, say their Microsoft Outlook plug-in speeds up the process by "threading" conversations, or grouping responses together.

Productivity gurus also have created a cottage industry out of eMail overload. Here's the best of their advice:

(1) Don't check eMail when you first start work. Experts say you should take care of an important task first before checking eMail, so that you don't use eMail as an excuse for postponing more pressing obligations.

(2) Check eMail in batches, rather than fluidly throughout the day. Some experts suggest checking eMail twice a day; others, up to five times. But the important thing is efficiency.

"You wouldn't do a new load of laundry every time you have a dirty pair of socks," says Timothy Ferriss, author of *The 4-Hour Workweek*.

(3) Minimize exchanges. "Learn to propose, instead of asking questions," Ferriss says. Instead of asking what time a person can meet for lunch, just jump right in and propose a few times. You can use "if, then" language, such as: "If you can't meet at 11, how about 12?"

(4) Limit sending eMail. Sending less eMail means receiving less eMail, and sending shorter messages will garner shorter responses.

"This does not mean that you should write elliptically or bypass standard grammar, capitalization, and punctuation," says Merlin Mann on his productivity blog *43 Folders*. "Just that your well-written message can, and should, be as concise as possible."

(5) Take it to zero. In an extreme case, some experts suggest wiping your in-box completely away and starting fresh. You can always send your contacts a message telling them what you've done, and asking them to resend any truly important messages.

(6) Use other forms of communication. eMail has earned a solid place in the workplace, but in some cases it's not the most appropriate form of communication.

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"When you're overusing it for the petty things, like [contacting] the guy in the next cubicle, stand up and ask him the question," says Cherie Kerr, author of *The Bliss or 'Diss' Connection: eMail Etiquette for the Business Professional*.

She suggests picking up the phone if an eMail thread gets longer than three back-and-forths.

"I don't care how many pieces of technology we have," she says. "At the end of the day, it's always going to be about relationships."

Five simple steps to getting started in grant

Across the country, schools are feeling the pain of steep budget cuts; now, more than ever, it makes sense for schools that haven't had a clear grant-seeking strategy to adopt one to help keep valuable instructional programs afloat—and even implement new projects.

If your school district has not gotten into the grant-seeking game, now might be the time to take a close look at the advantages of securing grant funding to support your instructional programs. Here are five simple steps you can follow to get started:

1. Lay the foundation by becoming "grant ready." This means establishing the internal infrastructure to apply for grants and manage funded projects. In other words, you need someone (or a group of people) willing to research funding opportunities, identify the most viable funders, and write proposals. You can establish your own internal grants team consisting of writers, curriculum experts, and fiscal experts. Or, you can consider hiring a grant-writing consultant to do these jobs for you. As for managing grant projects, someone will have to take responsibility for adhering to the terms and conditions of every funded grant, collect the programmatic and fiscal information needed for required reports, and make sure that reports are completed and submitted in a timely fashion. Grants management for smaller funded grants is usually less complicated and time-consuming than for larger grant awards. Keep in mind that managing one or two grants can be pretty simple, but the more successful you are at getting funds, the more grants you will need to manage!
2. Subscribe to grant-seeking resources. If you want to pursue federal grants, then subscribe to grants.gov to receive daily information about funding opportunities.

You should also become familiar with the U.S. Department of Education's Federal Funding Forecast (<http://www.ed.gov/fund/grant/find/edlite-forecast.html>) to get advance notice of upcoming funding opportunities. For state grants, check to see if your state education department has an eMail alert system you can subscribe to. There are several other funding alerts you can sign up for, too, such as eSchool News' Grants and Funding ALERT eMail newsletter (http://www.eschoolnews.com/catalog/product_info.php?products_id=29). If you are a charter school, look at the National Charter School Clearinghouse Grant Sightings. For foundation funding, check out the Foundation Center (<http://foundationcenter.org>) and its Foundation Search. Also, some foundations will alert potential grantees of their grant programs via eMail. Consult education publications for funding alerts you can subscribe to, and ask colleagues for their recommendations.

3. Use parents as resources. Parents with specific expertise related to grant seeking and grant writing can be placed on district grant teams. They also can be sources of information about local funders. In the best-case scenario, they might have their own family foundation and can serve as potential funding sources for your district. In addition, parents can make in-kind contributions by donating their time or expertise to various projects. Send a letter home with students, asking their parents if they have any special expertise and are willing to volunteer—and put a call for volunteers on your school or district web site and/or your local cable channel.

4. Develop project ideas. Having specific ideas is necessary to secure grant funding. Meet with department

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heads to discuss the projects they're working on or would like to implement in the next year or two. One of the keys to success in the grants field is to know that long-term planning is crucial. Grants should never be viewed as a "quick fix" to a budget crisis, or as a way to bring in funds to balance a district budget that has been beset with shortfalls. Grants are primarily seed money for new projects or funds to expand current projects. Funders want to support projects, not just equipment—and they view grantees as "wise investments" of their grant funds, not recipients of money to keep their heads above water. Funders award grants based on the strength of project ideas; if you focus your efforts on developing pedagogically sound projects, the funding is sure to follow.

5. Explore local partnerships. Working with outside partners—such as colleges, libraries, museums, nonprofit organizations, and for-profit companies—will strengthen your projects by drawing upon the partners' expertise. It also will strengthen your proposals and send a very positive message to potential funders, many of whom might encourage or even require collaboration on projects. By working with partners, you also expand the pool of potential funders available to you. For example, if you are working with a museum, you can apply for grants from organizations and programs that support both schools and museums, and not just those that support schools.

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