

NEWSLETTER

NSW Computer Education Group

Term 4, 2008

21st-century learning

<http://campustechnology.com/mcv/cdwg/21stcentury/home/>

These issues are being raised and ranted about by our Prime Minister Kevin Rudd and Sir Rupert Murdoch. We need to be aware of how the conversations could impact on our classrooms. Perhaps we as educators should be leading these conversations.

21st-century learning has become the hot topic in education in recent years. Why? As the national and global economy continues to transform, and as technology continues to play a more and more fundamental role in our everyday lives, we must think of ways to prepare the next generation to meet the challenges ahead. This means teaching the basics of technology use and, critically, to give students the foundation they need to adapt to the changing landscape: innovation, critical thinking, information and media skills, and global awareness.

21st-Century Skills

If students are to gallop into the 21st century, many people believe that technology is the horse they'll be riding.

Think about it: What in your life hasn't been transformed to some extent by technology? Maybe you regularly extract \$100 from your checking account by using your bank's ATM. Or Email your resume (with that great photo of you hard at work) to companies across the country. Or drive a car that can find its own way to the new pizza place across town. Or participate in video conferences with your business counterparts from around the world. Or organize your entire summer vacation—travel, hotel, attractions online.

Maybe you even use a cell phone.

techLEARNING.com

has the latest eBooks on the topics most relevant to your school.

- [Classroom Management in the Digital Age](#)
- [Web 2.0: from Curious to Competent](#)
- [A Laptop Especially for Schools](#)

You can download these books for free.

Now think about the world on the horizon for today's students. What skills will they need to navigate that world, skills you didn't need when you were emerging from adolescence? An organization called The Partnership for 21st-Century Skills (www.21stcenturyskills.org) reports on a nationwide poll that asked registered voters just that question, among others. Three relevant findings:

- * Four out of five voters say that the kind of skills students need to learn to be prepared for the jobs of the 21st century is different from what they needed 20 years ago.
- * Two out of every three voters say that they believe students need to learn more than just reading, writing, math, and science; high on the list are computer and technology skills, critical thinking and problem-solving skills, and teamwork and collaboration.
- * Almost three out of every four voters rank "computer and technology skills" at least a 9 in importance on a scale of 0 to 10. The only item that got a higher ranking was "reading comprehension."

The implications for education are deep. If students are to learn these skills, they may need to get very different kinds of assignments. Here's a traditional assignment: "Read the following descriptions of sites in Metropolis and, referring to the specifications, determine which site would be the best for a park." A corresponding assignment that would teach 21st-century skills might be this: "Using GPS equipment, work with students from two other schools in this city to determine the best site for a park, collaborate on a multimedia presentation, and arrange to make that presentation to the city council." In the latter assignment, students use various forms of technology (Internet, Email, GPS equipment, perhaps digital cameras, PowerPoint™), solve real-life problems, and work together to produce the desired result.

Note that the technology alone is insufficient. Good pedagogy is still good pedagogy, and that means engaging students, challenging them, encouraging them, and trusting them to do well. The trick—the goal—is incorporating technology into that pedagogy.

To do that requires a team. First, of course, is teachers and media specialists trained in the hardware and software that their students will be using—not only computers, but also digital cameras; not only word processing and spreadsheets, but also web pages and Internet search tools; and so on. A necessary part of the team is administrators—superintendents and principals and technology supervisors that can choose the appropriate technology, train the appropriate staff, and maintain the appropriate support for both machines and humans. And let's not forget parents and other segments of the community: For one thing, they need to endorse a budget that encompasses this technology and all its accoutrements. For another, they're in a position to promote a consistent message, whether it's from the parent helping with homework or the business owner hiring part-time students or the local civic organization volunteering to tutor. That message is "This is important stuff, and we're here to help."

The last member of the team is the most essential—the student. Students are charged with having the discipline to bend technology to their academic, and later their vocational, needs. Today it's seventh-graders working with their classmates to videotape interviews of veterans; 15 years from now, it's those same students working with their colleagues to create a digital production of their company's latest offerings.

The 21st century will demand much of students—as employees and as citizens. To a great extent, people's ability to work with technology and with each other will determine their success as both. So technology—hardware, software, infrastructure, training, and the budgets to support it—needs to be an everyday tool for teachers and students, a standard part of students' curriculum, and school communities need to be open to it. Technology is no longer a frill; it's as basic to education as the textbook and the ruler.

The 21st-Century Workforce

Recently, a new hire at a friend's company was assigned the task to review, analyze, and write a report about several organizations the company was interested in working with. Andrea Brands, AT&T's director of public affairs, describes the result: "My friend received a poor narrative, just a long summary, and it wasn't comprehensive." The employee didn't use any initiative, didn't go beyond the superficial. The employee was unprepared for the job.

These days, a lot of employers are facing similar situations; they feel that to-day's graduates' of universities, two-year colleges, and high schools' are deficient in "applied skills" such as critical thinking, problem solving, written communications, leadership, and professionalism. An organization called The Partnership for 21st-Century Skills found as much in a 2006 study, "Are They Really Ready to Work?" The study identifies which skills students lack and how important those skills are today and in the near future. People like Andrea Brands are working with educators around the country to help provide those skills to students.

Brands is on the board of the Partnership for 21st-Century Skills. Most of the educators she knows agree that if they infuse the skills into their curricula, students will be better off. As Brands says, "It's just not relevant to memorize where tributaries are in South America." She wants to "make classrooms more relevant . . . so students understand why they're learning this information."

The vice president of the Partnership board is Michael Schmidt, who's also the director of education and community development at the Ford Motor Company Fund. "I think," he says, "communities are beginning to understand that what they have isn't working, that kids aren't prepared." Schmidt helps create programs like Ford PAS, the Ford Partnership for Advanced Studies, an inquiry-based high school curriculum that creates partnerships with communities. The curriculum itself is free; Ford PAS trains the teachers in linking academic subject matter with relevant real-world topics. Ford PAS is taught in about 150 communities across 25 states.

Schmidt hears companies asking for innovative problem-solvers, people with "right-brain skills." "I don't know of a more important ingredient than innovation," he says, particularly because of the continual pressure in a variety of industries to constantly come up with something new and effective.

Another board member, Al Browne, is the national program director and vice president of education and technology at Verizon Foundation. He knows that to find the one or two employees they're looking for, Verizon staff need to conduct a "staggering" number of interviews. Why? Many of the interviewees are unprepared—academically or even in the way they conduct themselves. Browne remembers the race to the moon in the 1960s, spurred on by the Soviets launching their Sputnik and President Kennedy inspiring students and scientists alike to action. He thinks that the energy in classrooms of that period was almost palpable. Now, however, "I think we've lost some of that. . . . Our holes and our faults are showing up."

Browne points out that the No Child Left Behind Act has "changed the paradigm of learning"—making it difficult for administrators and teachers to encourage application

and broad critical-thinking skills when they have to focus on memorization and assessment. So Verizon developed the Thinkfinity program and other education initiatives to give teachers more resources and create more engaged students. Browne is quick to point out that you don't have to sacrifice academic rigor to teach applied skills, but "We've got to figure out a better balance."

At least one board member is optimistic about the future. Allyson Knox is the academic program manager for Microsoft's U.S. Partners in Learning, and she works with students all the time. "Sometimes," she says, "I think they're more prepared than we're giving them credit for. They've got great capacity." Knox also makes the significant observation that "the next generation loves technology," which is a big advantage to learning 21st-century skills. Along with Brands, Schmidt, and Browne, she's a believer in the entire community—schools, businesses, and families—educating and supporting children. She herself tries to be a role model for the young people working with her, and she's a strong advocate of others doing so as well.

It's AT&T's Andrea Brands who points out what may be obvious to some, but important nonetheless: "There's almost universal agreement that we need to do a better job in preparing the youth of today for tomorrow's global economy. Not to do that would be a disservice to our children."

We hope you will enjoy reading and thinking about the articles and features in this issue and find the information on the **21st Century Connections** web site valuable.

Gwen Solomon, Web Director

<http://www.21centuryconnections.com/node/630>

PD in Term IV

Moodle @Homebush Boys High School

a PD course on Monday 8th December
2008

4.00pm-8pm

WiFi Course at Rooty Hill

Saturday 29th November 2008

10am - 4.00pm.

Details with this Newsletter and on the website.

From the President's Laptop

Hi! All, What's happening?

Good question, let's start with Federal Government Policy on Education. I don't know about you, but I feel a little bit like a yoyo! We in then we are out then we are in again! Let's see but 2009 brings us all in ICT.

The Draft document about the Educational Goals for young People was very interesting. The feel of this document was that all technology subjects would be OUT of the school curriculum except for ICT across the curriculum. The implications of this are that ALL technology teachers would either be retrained to work in other subjects areas (to replace those teachers retiring) or move to TAFE. Another document has been drafted. At this stage, apparently confidential but looks a like more promising!

ACEC 08 was held from 29 September – 2 October 2008, National Convention Centre, Canberra. This conference introduced lots of new and updated information. There were two highlights for me. Firstly, Scratch. This web based software looks so good for all students doing computing in particular. Secondly is the speech by Julia Gillard about the Digital revolution.

The ACCE is introducing ThinkQuest Australia competition. Competition is to begin in March and complete in October. More details coming.

NSWCEG Training Opportunities:

Another Wireless training course will be happening shortly and likely to be held at Rooty Hill RSL. The Moodle course at Homebush Boys had to be postponed but will occur shortly. Keep the website for further information.

On a personal note, a big thank you to Sally Blackwell. She will be missed but enjoy your (as Braveheart would say) FREEDOM!

Tah! Cathie Webber
President NSWCEG
November 2008



Using Students' Phones in the Classroom

By Elizabeth Summers,
Sand Mountain Reporter

Albertville, Alabama - Cell phones create discipline problems in many area schools. From dealing with ringing phones disrupting classes to students cheating on tests by sending answers via text messages, Boaz City School officials agree something must be done.

The answer may lie in finding a creative way to make cell phones into a tool instead of a distraction.

Boaz Middle School Principal Ray Landers said during a Boaz City School Board of Education meeting Thursday night that teachers in his building are looking at ways to do just that.

"Teachers are working on lesson plans where students are using cell phones. We realize they aren't going to be going away, so we should use them to our advantage. The boys and girls are really excited about it. If we can show them how to use the phones constructively, we will be really well off," he said.

At the high school, a recent poll found between 80 and 90 percent of the students currently own and use cell phones of some description. Teachers there say phones with Internet access may be used as a research tool in the near future.

Technology Director Wayne Caudle said he was in the library with teachers and students providing a demonstration. A new Web site called "Chacha" will provide a nearly immediate answer to questions sent by text message. The site could help students as a research tool.

"That may be a good way to use a phone without having to ban them," Caudle said.

Superintendent Leland Dishman said faculty and staff members will continue to study the problem and will work to formulate lesson plans and policies in the near future.

Source: Reprinted from the Sand Mountain Reporter, Using students' phones in the classroom, by Elizabeth Summers

New Ning on Innovative Ed Tech

Innovate is an open access, peer-reviewed, online periodical published bimonthly by the Fischler School of Education and Human Services at Nova Southeastern University. The journal focuses on the creative use of information technology to enhance educational processes in academic, commercial, and governmental settings.

Emerging Ning discussions include guidance for people new to Web 2.0 tools, technology and learning disabilities, funding challenges, sustainability issues, faculty resistance to IT and virtual worlds. Not every comment is focused on K-12, but the journal and site are based on the belief that one sector can inform innovative uses of technology in other sectors. It's a Ning, so anyone can chime in or start a new topic.

The Ning is called an "ideagora," a term coined by Don Tapscott and Anthony Williams in their 2007 book, "Wikinomics: How Mass Collaboration Changes Everything."

According to the site, "The Innovate-Ideagora is a 24/7 professional networking site that lets the Innovate community participate in an open agora of ideas centering on the problems, issues, challenges, and opportunities of using information technology tools to enhance the educational process."

A Classroom Twitter Tool

Get in on the ground floor of Edmodo, a free, private microblogging platform that teachers and students can use to send notes, links, files, alerts, assignments, and events to each other. Teachers sign up for accounts, and then create groups. Each group has a unique code which is distributed by the teacher to the class. Students then sign up (no email address required) and join the group using the code. "Lockers" allow users to store and organize any post or reply.

During the initial stages of edmodo, when a teacher signs up they are

automatically added to the edmodo and support groups in order to give all early-adopters a chance to connect and report bugs.

Blogs

Doriana Carta,

This new micro-classroom provides social media tools for teachers and students, enabling them to share notes, links, and files in a modern way. Teachers also have the ability to send alerts to students regarding events and assignments. They will also have the option to post any item to a public time line if they so choose. Also handy is a calendar that keeps everyone in the know about upcoming exams and other events and special occasions.

That blog also includes a demonstration video. When Edmodo creator Jeff O'Hara chimed in on the related comments, he noted high use in their home state of Illinois, California and Brazil. In turn, one of those users commented:

I'm one of the Brazilian educators using Edmodo with a group of educators I'm training. For my online session, I use MOODLE as well as other open spaces, like blogs and wikis. I have a forum in MOODLE that I call class lounge. Well, as I started testing edmodo, it's been packed with interaction and we kind of left the calls lounge. Why? The class lounge is a forum, more static. Edmodo is much more conversational, dynamic. For you to have a better picture, you need to try it out. What I can say is that the participants just love to be there!



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