It’s Time to R.E.G.R.O.U.P. …
A Plan to do More With
What You Already Have

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**Editor**
- Sara Armstrong, Ph.D.
- oncue@cue.org

**Layout**
- Kesler Communications
- cori@keslercommunications.com

**Contributing Writers**
- Barbara Bray, Brian Bridges, John Cradler, Kelley Day,
  Tim Landeck, Linda Oaks, David Thornburg

**Advertising**
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**2009-2010 CUE Board of Directors**
- Brian Bridges, President
  - bbbridges@clrn.org
- Micheline LeBlanc, Vice President/Treasurer
  - mleblanc@acoe.org
- Kurt Larsen, Ed.D., Secretary
  - klarsen@wested.org
- Sharon Sutton, Ed.D.
  - Member at Large
  - ssutton@ucla.edu
- Debra White, Member at Large
  - dclarewhi@mail.telis.org
- Jerome Burg, Member
  - jburg@mac.com
- Robert EM Craven, Member
  - digitalroberto@gmail.com
- Cameron McCune, Ed.D.
  - Member
  - mcunquecameron@mac.com
- Joyce Miller, Member
  - joyce.miller@pusd.org
- Mike Lawrence, Executive Director
  - mlawrence@cue.org
  - Computer-Using Educators, Inc.
  - 877 Ygnacio Valley Road, Suite 104
  - Walnut Creek, CA 94596
  - Phone 925.478.3460 | Fax 925.934.6799 | cueinc@cue.org
Crisis 2.0, or What Doesn’t Kill You Makes You Stronger

It’s probably not a surprise to you if I say that these are perilous times. What might surprise you, though, are the opportunities that many may miss as they’re ducking for cover. But then, opportunity is really the wrong word. Let’s call it a favorable set of circumstances where new ideas can be born or given an opportunity to take hold.

Consider the often-repeated translation of the Chinese word “crisis”—“danger” and “opportunity.” The Chinese word for “crisis,” wēi jī, is a compound word, as are most words in Mandarin. While the first character, wēi, does mean “danger,” the second part, jī, does not mean “opportunity.” Instead, jī means “incipient moment,” a “crucial point when something begins or changes.” It may seem subtle, but as we trudge through Crisis 2.0, we should be aware that these are the exact times when new ideas are born or take hold. Not quite an opportunity, but a moment when change is possible.

For proof, let’s look at past economic recessions. From 1973 to 1975, our economy was hit hard. The OPEC oil crisis quadrupled oil prices, causing a stock market crash and out of control inflation. A few may remember President Ford’s Whip Inflation Now (WIN) pins. Yet, at the same time, Frederick W. Smith, who had enormous difficulty selling his idea to deliver packages overnight, at least to his Yale professor, started Federal Express, now FedEx, which ships more than seven million packages each day.

The “Panic of 1873” is another example of how economies over expand when a war ends, only to collapse upon themselves. Preceded by the Black Friday Panic of 1869 where a few tried to corner the gold market causing others to over leverage their investments, the panic ruined many and led to a six-year recession beginning in 1873. And yet, Thomas Edison created the first industrial research lab in Menlo Park and in the middle of a protracted recession invented the first commercially practical incandescent light.

Here, in the middle of Crisis 2.0, what seeds of change can be sown? Consider Governor Schwarzenegger’s Free Digital Textbook Initiative, which took place this summer. In a state with a complex textbook adoption process, the Governor and the State Board of Education proposed to review digital textbooks for high school math and science. While pundits criticized the effort as not saving money or that schools weren’t equipped with computers or e-readers for each student, most missed the point. The initiative was about an incipient moment, a time when change is possible, and the first step on the thousand-mile journey to transform textbooks into something much richer. Like the transformative changes that took place in the music publishing industry this decade, we should expect progress in the textbook world as both publishers and educators grow to accept the new paradigm.

Certainly, Crisis 2.0 is deeply affecting educators, students, and parents as we struggle to create relevant, authentic learning opportunities that both cover California’s content standards and prepare students for high-stakes tests. However, even during a crisis, there are incipient moments for us to create, to plant new seeds, and to promote change.

Brian Bridges is director of the California Learning Resource Network and is President of the CUE Board of Directors.
Moore’s Law Dies Again

Most technology folks know about Moore’s Law, named after its developer, Intel’s Gordon Moore, over forty years ago. In the early days of integrated circuitry and computer chips, he observed that the complexity of these circuits was doubling every two years, usually measured by the number of transistors that could be crammed onto a silicon wafer. He also noted that, as complexity increased, cost went down, and speed improved.

Over the intervening years, this “law” has been modified to the point where the “doubling time” has been reduced to one year. The present state of development is giving us processors with over 750 million transistors with a throughput equivalent of 12 gigahertz. Gollyorkins!

As chip complexity increased, naysayers pointed out that, sooner or later, Moore’s Law was going to run out of steam. Transistor size can only be reduced so much, heat dissipation has its limits, and the architecture of microprocessors will finally have bumped into a stone wall. There is even a report that suggests the cost of fabrication facilities has grown so large that they have to be used for a long time just to recover the investment, and this will provide a death blow to Moore’s Law. This pronouncement, due to take hold in 2014, was reported in a recent article in EE Times (<tiny.cc/2UdjL>).

I have a different theory.

Advances based on Moore’s Law are going to end because it no longer matters.

That’s right. It simply doesn’t matter how much faster processors in kid’s hands get when it comes to educational computing.

Processor speed and complexity have reached the point where virtually no ordinary person cares how fast a processor is.

As for home machines, there is a reason that netbooks are growing in popularity. For us mortals, we have entered the world where bandwidth matters more than processor speed, and with 3G networks, etc., we will see computer-intensive applications move to big machines on the web, leaving our laptops for simple programs. We forget that the Apple II and its ilk ran wonderful software with less than a one MHz clock. Five gigabit processors make money for Redmond and the electric utilities. But, seriously folks, how FAST do you need to boot solitaire?

Acer now has a netbook with an 11” screen and a mostly regular sized keyboard. With a six-cell battery, you are talking six hours of actual use between charges. Costco has the computer for about $350 (with a regular battery). When this machine gets Google’s Android version of Linux in the Fall, the price will likely drop below $300. Plus it tips the scale at about one kilogram. No more sore shoulders.

I’ve been carrying a small netbook with me for some time, and it is doing most everything I need when I’m on the road. Yes, I’d like a larger screen (coming) and a standard-sized keyboard (coming), but these do not impact the overall utility of the system, and, after a little while, my fingers adjust pretty well. Aside from the cost (I paid less than $300), the advantage is overall size and reduced weight. And (I almost forgot) battery life. These machines are pretty green, which is important when you realize that our global computers use about 20% of all electricity generated on the planet! (See Kevin Kelly talk about this in his video about the 5,000 days of the web on <www.ted.com>.)

For kids of all ages, netbooks can be pretty cool devices. Built-in Wi-Fi, decent storage (I have 160 GB of hard drive space) and the ability to run good applications all favor these computers. And, let’s not forget that we are living in stressful times when it comes to budgets. Look in your kid’s backpack (bend your legs when lifting the backpack so you don’t strain yourself). Each of those obsolete textbooks costs your school system $75 or more. Four books equals a netbook at full retail.

Continued on pg 7, bottom
It’s time to R.E.G.R.O.U.P. …
A Plan to DO MORE
WITH WHAT YOU ALREADY HAVE

In these challenging economic times it falls on the shoulders of district technology and business offices, teachers, and families to join together to formulate a plan of action that will benefit all stakeholders. What can we do to maximize the funding we have and proceed with a technology plan that continues to focus on acquisition of 21st Century skills? In the Lemon Grove School District we have decided to take a look at the tools we have assembled over the past several years and R.E.G.R.O.U.P. In this plan we are reflecting on all the factors that can take this gloomy economic environment and turn it into a fresh, energized plan where everyone has a part to play in its success. Our plan to R.E.G.R.O.U.P. includes: Respect, Energize, Gather, Revitalize, Organize, Upend, and Prepare.

RESPECT the perspective and position that stakeholders bring to the plan. As district leaders, often it is easy to lose sight of how our decisions affect the day-to-day work teachers and students are trying to accomplish in the classroom. When we feel the financial pressure to modify our forward-thinking goals for creating technology-rich classrooms, we need to remember that teachers are there where the rubber meets the road. As we feel the pinch and disappointment to modify our plans for expanding technology, students and their families are dealing with the reality of skyrocketing unemployment, the threat of moving to a new apartment and/or school, the possibility of needing public assistance for the first time or, as we see in the San Diego area, dealing with the deployment of a family member to hazardous military duty. It is important to remember that teachers are there to deal with the results of this stress and fallout every moment of every day. Part of our plan to R.E.G.R.O.U.P. is to focus on our support for teachers by not adding new things to integrate into an already demanding curricular environment. Our focus will be to help teachers gain confidence with and integrate the tools they already possess.

EVALUATE what you’ve got and how you can better utilize it. Now is the time to walk through your warehouse and every district site to get a fix on what is being used with fidelity and what could possibly be reallocated for use somewhere else. Likewise, it is the perfect time to survey teachers, students, and parents to determine how the district might better meet their technology needs with the tools already available. From this you may even identify those positive program attributes or gems already in place that may have been overlooked or underappreciated. In Lemon Grove, we are going to create a new Technology Learning Center (TLC) with reallocated computers, furniture, and personnel and provide monthly classes for parents and teachers focusing on topics such as basic computer skills, Internet safety, web browsing, and most importantly, how to access and use the district-provided tools to maximize communication between home and school.

GATHER the support of teacher-leaders and innovators…and don’t forget to recognize those who silently succeed. The most effective users of classroom tools are teachers who use them day in and day out. They are the ones who figure out that tiny, obscure trick that makes a piece of software transform a previously mundane lesson. They are the ones who see where “try, try again” pays off. They are the ones who take that risk to try what on the surface looks to be the magic pill, but fails miserably in the reality of the classroom. In our R.E.G.R.O.U.P. plan, we intend to foster innovation, creativity, and good-old perseverance by giving credence to the vast amount of knowledge and experience found in our classrooms, and provide the support necessary to cultivate an atmosphere of collaboration, sharing, and reassurance for the risk-takers who more often than not turn out to be our innovators.

REVITALIZE a passion for innovation and change. There is not a better time to solicit ideas for innovation and change than when the economy demands it. Some of the greatest ideas and inventions have come from an environment of need. We need to cultivate the urgency for discovering and/or redefining a sense of purpose in what we do. Listen to what staff, teachers, students, and families are doing to accommodate their needs with less. Have an open mind; be open to the ideas and original suggestions of others; incorporate, support, and celebrate ideas of innovation and change. These are the perks we can provide for free, and who knows—we may emerge better, stronger, and more focused on our objectives than ever before.

ORGANIZE small learning communities and networks. In Lemon Grove, we are organizing our learning communities and networks around the acquisition of beginning to advanced skills with the hardware and software tools we already have as well as new curriculum adoptions. We want to encourage our teacher-leaders and those who silently succeed to share their secrets of what has worked and what hasn’t. It is our goal to provide a non-threatening environment for teachers to come together in the new Technology Learning Center—and remotely through the district website’s blog feature—to learn more, with less. It is our expectation that parents and teachers will be provided the opportunity to learn side-by-side, and is that not the very definition of “community?” It
is the focus of the R.E.G.R.O.U.P. plan to do what we do best—to learn by doing!

UPEND the attitude of “that’s the way we’ve always done it.” In these topsy-turvy times, all stakeholders deserve a fresh look at the way we do business. For districts where there are limited or no funds for paying teachers to attend staff development, it may mean attending a meeting of a small learning community for the sheer joy of learning something new, learning something that will improve teaching and learning, or getting support for common issues that arise in the classroom or community. It may mean volunteering in the “play room” to watch children while parents attend classes provided by the district; it may mean soliciting the support of your local pizza parlor to provide a dinner for a monthly “technology night;” or it might mean doing something for free for which you are usually paid. My dad once said, “When times are tough, maybe it’s time to make a deposit in the ‘Bank of Goodwill;’ do something for the good of all now, and it will be remembered later.” If doing something “the way we’ve always done it” is not working any more, or seems to fall flat, or can’t be implemented in this economic environment, perhaps removing the restrictions to move in another direction may lead to the solution that has been eluding us all along.

PREPARE for the future. Many of us have been around long enough to know that “this too shall pass.” We must learn from our experiences in lean times to better and more efficiently utilize what we’ve got in times of plenty. We have an opportunity now to take a look back at what we have, the way we have managed the resources provided us, and reevaluate with an open mind how we might move forward and do better. If you think about it, this economic environment could be a wonderful opportunity to fully implement, deeply learn, and integrate those tools we haven’t had “the time” to turn our full attention to. Perhaps it is time to learn to blog, podcast, Twitter, visit iTunes U, integrate publisher-provided digital tools and websites, incorporate that cool animation feature of PPT you’ve not had time to try, learn EXCEL so you can teach circle graphs, learn Publisher, or Inspiration, or set up a classroom website if your district does not provide one, enter a competition and invigorate project- or inquiry-based learning with free tools such as ThinkQuest— the list is as endless as our imagination, innovation, and perseverance takes us. So hear this: now’s the time to R.E.G.R.O.U.P., because when the tide turns, we will need to be ready to move forward, strengthened by the fact that we’ve had the time to ready ourselves for what’s to come.

Mary Kraus is currently the Program Manager, Technology Services, for the Lemon Grove School District in Lemon Grove, CA. As a history-social science teacher, she received the California Council for Social Studies Outstanding Middle School Teacher of the Year Award in 2007. While still in the classroom, it was her passion to integrate technology and 21st Century tools into standards-based content curriculum. As Project Director for the teacher-driven, grass roots project, the Emerald e-Connection, in the Cajon Valley Union School District, she was able to facilitate a 2:1 student-to-computer ratio for approximately two-thirds of the school before moving to Lemon Grove. The words of Katherine Graham describe her enthusiasm for being able to bring technology to those who need it most: “To love what you do, and know that it matters, what could be more fun?”

How cool is that?

David D. Thornburg, Ph.D., Director, Global Operations, Thornburg Center for Professional Development (<www.tcpd.org>, <www.tcptpodcast.org>) is also Executive Director, Thornburg Center for Space Exploration (<www.tcse-k12.org>). He has been an active supporter of CUE since its inception, and is a leader in the educational technology field.

Thornburg, continued from pg 5

And, you’ve traded several kilos of passive paper for a kilogram of dynamic computing power which kids can not only read what others have done, but can create and build their own understandings of the things they will need to know about in their future. For several generations we have celebrated Moore’s Law without realizing that we have also been enslaved by it. Our quest for faster, better computing has cost us a fortune. And, the day we installed our new computers, even faster machines were introduced to the market. Now we have finally said, “Enough!” If there is a silver lining to the economic crisis in education, it may be that it will finally get us to provide every child with the kind of powerful technology some of us have been predicting for many years.

The most effective users of classroom tools are teachers who use them day in and day out. They are the ones who figure out that tiny, obscure trick that makes a piece of software transform a previously mundane lesson.
Learning Opportunities and Cost-Saving Ideas

Some advice being shared in these tough economic times is “work smarter, not harder” and “do more with less.” Unfortunately, steps to follow these tips are not always clear. Here are a few suggestions to help with working smarter and doing more with less.

Let’s start with professional development. There are organizations, such as the California Technology Assistance Project (CTAP), which host free after-school workshops. An educator moderates these two-hour technology skill-building and curriculum integration workshops, which also include an additional one-hour offline activity. Each CTAP region also offers additional regional professional development for little to no cost. You can access the workshop calendar and each region’s website by visiting the state CTAP website (<www.myctap.org>).

Schools Moving Up (<www.schoolsmovingup.net>) offers free webinar series on critical issues facing our schools/districts. Some topics from last year’s series included: RTI, issues related to English Language Learners, and turning around low-performing schools. As with the CTAP workshops, the Schools Moving Up webinars are archived and can be viewed at any time.

When interests and needs match, local schools and/or districts can partner and offer a professional development program that they may not have been able to provide on their own. This opens the door to further collaborations and perhaps the creation of a local professional learning community. Keeping costs and travel time to a minimum is key to this cooperative endeavor.

Some conferences, such as the K-12 Online Conference (<k12onlineconference.org>) allow participation from the comfort of one’s home. This annual event will take place the end of November through mid-December 2009. Classroom 2.0 (<www.classroom20.com>), another social network, hosts an active site with LIVE Saturday sessions as well as PBS monthly webinars.

Educators can apply to present at a CUE conference (and other similar meetings) and receive a complimentary registration. (Visit <www.cue.org/conference/present> for information and the submission process.) It is a great opportunity for educators to attend a worthwhile event and to broaden their professional learning network. They can extend the CUE conference experience by actively engaging in the CUE community. It offers conference handouts, discussions, photos, videos, and much more. CUE members should review the OnCUE journal’s calendar for a listing of local affiliate events (or see <www.cue.org/events>.

As she stated in her Summer, 2009 OnCUE article, “Creating a Personal Learning Network with Twitter,” Anne Bubnic reminds us that professional learning today is not bound by time, space, and money; and, the rewards are incredible. She writes, “There is not a day that I have gone onto Twitter where I have not reaped a learning reward. The brilliance of it all is that you don’t even have to spend a lot of time on Twitter for the payoff.” The Summer, 2009 issue of OnCUE highlighted other learning networks as well. The beauty of these networks is that they open the entire educational community to each of us—and, it’s just a click away!

On the hardware/software side, here are a few suggestions for providing more with fewer funds. Companies sell netbooks at a fraction of the cost of laptops. Some districts applying for Enhancing Education through Technology Competitive (EETT-C) funding are budgeting for netbooks to greater reduce their student-to-computer ratios. In some cases, the district can reach a 1:1 ratio in the project’s targeted classrooms in this way. Using free Web 2.0 tools instead of purchasing site and/or district software licenses is another cost-saving idea. It may be time to sit down with the IT department to have conversations regarding these ideas, if you have not already done so.

It’s the beginning of a new school year. Let’s share best practices through our online communities and benefit from the successes of those achieving “more with less.”

Burt Lo is a Professional Development Coordinator with CTAP Region 6. Burt is also a member of the CUE Conference Planning Committee and a Board Member with the Central California CUE Affiliate.

Micheline LeBlanc is the former Program Director of CTAP Region 4. She is currently an educational technology consultant. Micheline is also CUE’s Vice President/Treasurer.

Marianne Pack, Director of CTAP Region 6, administered by the Stanislaus County Office of Education, serves as the State Chair of CTAP and Chair of the Program Management Committee, and is on the Consortium for School Networking (CoSN) Executive Board. Prior to her 10 years at CTAP, she was a classroom teacher for 26 years.

Marianne Pack, Director, CTAP Region 6, is serving as 2009-2010 CTAP State Chairperson. For this column, she is inviting guest writers from various CTAP regions to present their views.

Burt Lo
blo@ctap6.k12.ca.us

Micheline LeBlanc
leblanc410@gmail.com

Marianne Pack
mpack@ctap6.k12.ca.us
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CUE supports many regional Affiliates and SIGs. As a CUE member, you not only gain access to a network of computer-using educators in your area, but are free to join an affiliate, and any number of our special interest groups. To add more than one affiliate, there is an additional $10 fee.

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  None

Special Interest Groups

Administrators' SIG
Support for technology-using school administrators.
Michael Simkins
msimkins@portical.org

eLearning SIG
Supporting online teaching and learning.
Dr. Kip Leland
kip.leland@gmail.com

Independent Schools SIG
Private, parochial, K-12, and higher education organizations.
Jennifer Wagner
jw@technospud.com
Dennis Grice
dgrice@sjohsonorange.org

Library Media Educators' SIG
A support group for library resource professionals.
Lesley Farmer
lfarmer@csulb.edu
Glen Warren
gwarren@nccue.as

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Professional development across the teaching continuum.
Dr. Nada Mach
nmach@csudh.edu

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Tim Landeck
tlandeck@psud.net
Karl Forest
karlfomat@gmail.com

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When most technologists think of “green computing,” they tend to gravitate toward the obvious: lower power devices, auto shutoff tools, and less polluting material construction. These are all great when considering new purchases, but can account for only a fraction of the environmental and capital savings of equipment re-use.

The U.S Environmental Protection Agency (EPA) recently released its Electronics Environmental Benefits Calculator, which is intended to assist users with quantifying the benefits of environmentally sound management of electronic equipment. According to this tool, re-using just one computer and monitor saves:

- 30 lbs of hazardous waste
- 77 lbs of solid waste
- 77 lbs of materials
- 147 lbs (17.5 gallons) of water from being polluted
- 32 tons of air from being polluted
- 1,333 lbs of CO2 from being emitted
- 7,719 kilowatts of energy
- This is roughly the equivalent of taking half of a car off the road and saving 68% of one U.S. household’s allotment of electricity for a year.

These numbers are significant and certainly worthy of consideration. So then the question is: How do we in K12 leverage computer re-use strategically and effectively to both increase student technology access and reduce our footprint on the environment?

First, consider that the vast majority of computer use requires very little processing power. Most individual desktop applications in educational environments spend the majority of their time waiting for the user to do something, rather than the computer actually processing. Consider also that we are using more and more web-based applications, in which the server does most of the work.

With these facts in mind, it becomes quite easy to conclude that operating systems are the primary driver of continually escalating system requirements, which lead to ever more rapid and premature (and unnecessary, in my opinion) equipment retirement. As such, the logical conclusion is to utilize operating systems that are capable of supporting the same or similar software with lower system requirements. In other words, we should be leveraging lightweight Open Source applications and Linux on desktops and thin clients.

Here at Saugus, we have long been supporters of Linux on the desktop (Fedora is our favorite flavor.) Linux on the desktop offers a number of significant advantages:

**Fast and light:** Linux is significantly smaller (in lines of code) than mainstream operating systems, which means that it is more efficient for machines with fewer resources. Its modular design allows a user to install only the parts they want, and to leave off the parts they don’t. The result is better performance on low powered hardware.

**Secure and stable:** The design of Linux is inherently secure, and is generally far less susceptible to viruses and malware than other systems. And, Linux is widely regarded as one of the most stable operating systems on the planet. These factors make it ideal for use in K12, where availability of support resources is often limited.

**Broad hardware support:** The Open Source community is well known for its hardware support, especially for older hardware, which makes Linux extremely easy to install on older machines. In general, everything just works without effort. No more hunting for drivers.

**More variety:** Most Linux distributions offer a wealth of applications for a variety of needs, including education. Common applications such as OpenOffice, Firefox, Adobe Reader, and myriad others are widely available. Projects such as Tux4Kids, KDE Education Project, GCompris, and others have wonderful offerings for classroom use. And, all are free.

**Flexible networking:** Linux is extremely flexible as a network client. And it can be easily integrated into Microsoft, Apple, and Novell environments.

**Free:** Did I mention free? Often, older machines have Windows 2000, 98, ME, or XP Home Edition on them. The cost and effort to upgrade these machines to XP Pro or Vista is hardly worth the effort.
Linux = Green Computing: A number of articles have surfaced recently declaring Windows an energy hog. Have a look at “Not so green computing: Is Windows an energy hog?” and “True or False: Switching from a Windows-operated computer to a Linux-operated one could slash computer-generated e-waste levels by 50%” (links below.) In addition, there are a number of efforts to make Linux even greener, such as Intel's Less Watts project and IBM's Big Green Linux project.

Every Linux client we install operates as a fully functional network client. Users log in to the network using our Windows-based authentication mechanism and automatically mount network home folders and shares. Virtual Network Computing (VNC)—which allows us to take control of a machine from anywhere else on the network—is installed and configured, enabling remote technical support. Everything an IT department would expect is available on each machine.

But we don’t stop there. We make sure that the latest Internet technologies and media players are installed, as well as a host of educational, multimedia, scientific, and productivity applications. Each workstation easily contains more than 40 software applications for ready use in the classroom.

We’ve even relaxed our “just say no” policy toward accepting donations. Over the past several months, we have accepted more than 200 machines from the Department of Defense and other organizations, and have installed Linux on the vast majority of them. Since we are able to script and fully automate the Linux installation, classroom teachers are able to handle the deployment and increase their computer count in a matter of minutes.

The impact of this approach on the education and the environment is significant. Student to computer ratios drop, and schools gain increased flexibility with technology allocation. Students gain access to a greater number of applications and reliable computing resources. Teachers are empowered to implement broader technology-driven lessons as a result of increased technology access. And equipment usable life is extended, driving down the cost of technology integration and reducing our impact on the environment.

The “wins” provided by computer reuse are hard to ignore, especially in tough economic times such as ours. Consider making the most of those old machines, rather than simply throwing them out—your students and the environment will thank you!

Jim Klein is Director, Information Services & Technology, for the Saugus Union School District (<www.saugususd.org>, <community.saugususd.org/~klein>), Chair of the CoSN k12 Open Technologies Initiative, a member of CUE’s Legislative Advocacy Committee, and a 2008 National School Board Association’s “20 to Watch” educator. With more than two decades of IT experience, Jim has become well known throughout the K-12 education community as an aggressive technology leader.

Resources:

EPA Electronics Environmental Benefits Calculator: <www.federalelectronicschallenge.net/resources/bencalc.htm>

Fedora Project: <fedoraproject.org>

“Not so green computing: Is Windows an energy hog?”: <blogs.computerworld.com/node/6283>

“True or False: Switching from a Windows-operated computer to a Linux-operated one could slash computer-generated e-waste levels by 50%”: <www.cnn.com/2007/WORLD/asiapcf/12/03/eco.myth.ewaste/index.html>

Intel Less Watts Project: <www.lesswatts.org>

IBM Big Green Linux: <en.wikipedia.org/wiki/Project_Big_Green>

OpenOffice.org: <openoffice.org>


Adobe Reader: <www.adobe.com/products/acrobat/readstep2.html>

Tux4Kids Project: <www.geekcomix.com/tux4kids>

The KDE Education Project: <edu.kde.org>

Gcompris: <gcompris.net>
Impact of the Budget Crisis on Educational Technology in California

By John Cradler

cradler@earthlink.net

Impact of the Budget Crisis on Educational Technology in California

Background: In January of 2009, the State Education Budget was cut by about 15% and 47 stated categorical programs were moved into a newly created flexibility provision (referred to as Tier 3) of the budget. The rationale for Tier 3 was to allow education agencies to use categorical funds to offset budget cuts and support programs locally determined to be of higher priority. This change in funding allocation had and is continuing to have a major impact on the California Technology Assistance Projects (CTAP) and the Statewide Educational Services (SETS). The flexibility provision allows county offices of education serving as the fiscal agents for these programs to re-allocate the CTAP and SETS funds to support anything related to education, and waives the prior legislative provisions that defined these programs, as well as any documentation and reporting of the use of the funds for CTAP and SETS. The overall result of this change ranges from the elimination of CTAP in one region to anticipated continuation of services in another, with most county offices of education making changes in services to support locally determined priorities.

Current Status of CTAP and SETS: Following is a brief summary of the changes in CTAP as of the time this article was written.

CTAP Region 1 will continue with staff cuts, increased use of web-enabled professional development, and other changes yet to be determined.

CTAP Region 2 will continue and any changes are not known at this time.

CTAP Region 3 will continue with minimal change to services for 2009-10

CTAP Region 4 was eliminated with the regional funds distributed to each of the seven county offices of education to address local needs.

CTAP Region 5 will no longer be called CTAP and will use the funds to support the delivery of online courses and provide support for online courses but will maintain most staff.

CTAP Region 6 will continue with minimal change for 2009-10.

CTAP Region 7 may continue, but changes are expected but not known at this time.

CTAP Region 8 is decentralizing services to the counties.

CTAP Region 9 will probably change, but details are not known at this time.

CTAP Region 10 is anticipated to continue to provide services as were provided in 2008-09.

CTAP Region 11 will continue to provide the same services and staffing as were provided during 2008-09.

Following is a summary of the anticipated changes in each of the four SETS:

California Learning Resource Network (CLRN): CLRN is continuing to review electronic learning resources and web information links. However, it is shifting some of its resources to the review of “digital textbooks” submitted by publishers to be included in the Governor’s recently implemented digital textbook initiative. CLRN has not had sufficient staff resources to continue reviewing new electronic learning assessment resources. <www.clrn.org>

Technology Information Center for Administrative Leadership (TICAL): At this time it is anticipated that TICAL will continue to provide web-based information and professional development to support school administrators in planning and using technology on a statewide basis. <www.portical.org>

Technology Resources For The Education Community (TechSETS): It is understood that TechSETS will significantly modify...
services; however, as of now it is not known what these changes will be. <www.techsets.org>

EdTechProfile (ETP): It is planned that ETP will continue but that the assessments will be significantly changed and adjusted to be customizable through the use of an “item bank” or repository of survey items from which users can create assessments designed to address local project and program needs. <www.edtechprofile.org>

New and emerging resources: A new resource has emerged to help meet the need for information resources provided by CTAP and SETS and it is known as MyCTAP.org. This is a “portal” or one-stop web-based information service to be launched in August of 2009. MyCTAP.org is collecting and making available many of the resources already developed by CTAP regions that have value to educators on a statewide basis. It will also offer a wide range of services to include information updates and support for developing EETT Competitive and other grants, provide information on promising and effective practices, research and evaluation related to technology in support of teaching and learning, professional development opportunities, and much more. <www.myctap.org>

It is anticipated that the K-12 High Speed Network (HSN) will continue to be supported and updated to help ensure the connectivity needed by all schools to be able to take advantage of the increased need for Internet access to teaching and learning resources. <www.k12hsn.org>

Conclusion: It is anticipated that the types of services offered by CTAP and SETS will survive the next few years of the budget crisis. External evaluation conducted over the past five years has clearly documented the impact and need for CTAP and SETS. It has shown that the professional development and support provided by CTAP and SETS has generally increased the effective use of technology to support teaching and learning related to the California Content Standards, as well as helping teachers and administrators make informed planning decisions related to the use of technology. Results of the evaluations of CTAP and SETS can be found at <www.cde.ca.gov/ls/et/> and at <www.myctap.org>. It is anticipated that continued and possibly increased support for educational technology will result from new federal stimulus and ongoing funding for EETT, new state and federal legislation, and possibly the development of a state plan for educational technology.

An update on the services to be offered by CTAP and SETS will be posted as they are known on MyCTAP.org and in future issues of OnCUE.

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John Cradler is President of Educational Support Systems and Co-Chair of the CUE Legislative Advocacy Committee. He has been actively involved in developing policy and legislative proposals for educational technology at the state and national levels for the past 25 years. He has been conducting formative and summative statewide evaluations of the state funded California Technology Assistance Projects (CTAP) and Statewide Educational Technology Services (SETS) for the State Department of Education and Legislature, and is conducting an in-depth study of the impact of the Enhancing Education Through Technology (EETT) grants on teaching and learning. He has served as Director of Technology for WestEd, the Council of Chief State School Officers, a Teacher Education and Computing Center (TECC), and the South San Francisco Unified School District.

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Board of Directors Nominations
DUE December 15, 2009

Nominations are open from August to December of each year.

The nomination process is simple. CUE members can be nominated in either of two ways:

- By your Affiliate (a letter of nomination is required from your CUE Affiliate’s President).
- By five current members of CUE (each must write a separate letter of nomination).

All nomination materials must be received by CUE by December 15, 2009 to be considered for candidacy in the election. More information is available at <www.cue.org/nomination/>.

CUE Awards

CUE is proud to recognize and support its members and friends in their endeavors.

- Nominations are now being accepted for Site Leader, Gold Disk, Outstanding Teacher, and Technology Learning Leader awards
- Contact your local CUE affiliate regarding the nomination processes.
- Members may also apply for a LeRoy Finkel Fellowship.

All materials must be received at the CUE office by December 8, 2009 to be eligible. Applications and information are available online at <www.cue.org/awards/>
Did you know? In addition to CUE members’ normal benefits, all current members also receive additional online discounts and free resources! We call this suite of special benefits “myCUE Member Benefits.” Members must login at www.cue.org and click on “CUE Members Only,” then “myCUE Online Benefits” to take advantage of them! There are four categories of myCUE benefits: Tools, Resources, Publications and Events and Services. Here’s a sampling of some of our newest offerings—visit the Members Only section to click and save!

**CreationEngine.com**

An additional 5% discount to the already bargain price for academic software on CreationEngine.com.

**PC/MacMall**

PC/MacMall Discounts! Create your own account and receive discounts between 5-25% off the Mall’s already great pricing on hardware, software and other technology.

**Tech4Learning**

Tech4Learning creates software tools and professional development to support classroom instruction, engaging students in the curriculum and promoting problem-solving and higher-order thinking skills. CUE members now receive 10% off of single copies of: Pixie, Frames, Twist, WebBlender, ImageBlender, and MediaBlender.

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Explore these and many more benefits at <www.cue.org/mycue/>
How can you provide professional development on a tight budget? U.S. schools are looking for ways to trim their budgets and professional development is on the top of many lists to cut. If we want to find and retain high quality teachers and administrators in our schools, we have to start thinking creatively. There are innovative ways to use technology as an inexpensive professional development solution.

At the EdubloggerCon at the National Education Computer Conference 2009 (NECC) in Washington D.C. this June, there was a discussion group on professional development with about thirty teachers and technology specialists. They shared interesting ideas about professional development that could be implemented immediately, including Unconferences, Speed-PD, IETPs, Backchannels, and Smackdowns.

### Unconferences

The EdubloggerCon was set up as an unconference using a wiki where any participant could add their presentations to time slots. Other participants could sign up to different sessions posted. The participants determined the most popular topics and the direction of the conversations. Any school can set up a wiki where teachers post examples of successful use of technology with their colleagues. (See <pbworks.com> for example.)

Henry Thiele, Director of Technology for Maine Township HS District 207, shared how his district does technology coaching similar to an unconference setting like EdubloggerCon. Each teacher was not supposed to prepare at all for this unconference—just show a lesson illustrating how they integrated technology into their classrooms. Teachers enjoyed learning from each other and realizing that what they know is valuable and can be shared with their colleagues. Any school can set up an unconference where teachers self-identify themselves as experts on different technologies or strategies for integration.

### Speed-PD

You’ve heard of speed dating. Well, what about Speed-PD? Jeff Utecht teaches at an international school in Bangkok, Thailand, where they set up Speed-PD. Ten high-end technology users are at different stations where they give a three-minute pitch about how they use technology in their classroom to their colleagues. Teachers rotate to the next station after the three-minute bell. In just a half an hour, teachers learn so much from their peers.

It wasn’t long before more teachers wanted to participate and share. The more often teachers started sharing and learning from each other, they realized that they have the support they need built in among their staff. Everyone becomes an expert on something and sharing what they are doing in their classroom.

### IETPs

Jeff also worked with his school to set up individual educational technology plans (IETPs) based on the NETS standards (<www.iste.org/AM/Template.cfm?Section=NETS>). Each teacher chose three standards and scheduled time with a colleague identified as someone who had effectively demonstrated creating and implementing activities that met one or more of those standards. The greatest aspect of IETPs is that they focus on the standards instead of the tools.

Often the issue is that “we don’t know what we don’t know.” If we start with three-minute demonstrations on what others are doing in their classroom, then teachers can design their IETPs with a better understanding of where they want to be with the use of technology.

Continued on pg 19, bottom
The most requested workshop is the Google Workshop for Educators, a fast-paced full-day experience that introduces participants to innovative ways free Google tools can be used in education. Popular “Learn It, Take It, Use It” workshops include equipment: Flip Video for teachers, GPS & Geocaching in education, and iPod touch for Administrators.

CUEtoYOU also offers workshop packages such as the read/write web series (which includes blogs, wikis, and podcasting) and the multimedia series (which includes images, audio, and video). Other topics include a wide variety of desktop software titles, web-based services, and equipment.

For more information contact:
Mark Wagner, Ph.D.
Professional Development Coordinator
mwagner@cue.org
949.394.6071
By now, it’s a well-known fact that even the youngest students benefit from getting their small hands on a computer as part of their instruction. The only real question that remains is the hardest to answer: How can public school districts afford to purchase enough computers to meet the needs of all of their students?

I recently viewed a website for an electronics retailer and I discovered a mini-laptop that cost just about $240. This is a phenomenal price if you want to buy a laptop for personal use, but it still adds up to a daunting total dollar amount when you think about purchasing enough of them to dole out to all of the students in your district. However, this website gave me an idea—I think we could bring this price down to zero and place these laptops in the hands of the students who truly need them.

Auctioning Empty Space

Even though mini-laptops (aka netbooks) are smaller than regular laptops, there’s still a lot of empty space on their plastic cases. What if the State of California were to sell or auction the space on the back of the laptop’s lid, around the keyboard, and on the bottom?

For just $50 per laptop, a company could purchase (or acquire through donation) the open area to the right of the keyboard and place their logo there. This addition could easily be done by a computer manufacturer, similar to the Intel or AMD stickers often affixed to new computers. Or, for $75 a unit, perhaps a company could secure the flashing of their logo and website address on each screen during computer start up. We could raise further funds by allowing organizations to pay to have their URLs included in the default links of each laptop’s web browser.

This concept of integrating company sponsorship into an educationally-based delivery vehicle is not new. Since 1990, Channel One has been transmitting daily news via satellite to classrooms across the nation, and two of their 12 minutes of programming are sponsored segments, which enables the content to be delivered to schools free of charge. If we extend this idea to selling various sponsorships on small laptops, we should be able to purchase enough units to provide computers to those students who don’t already have a laptop at home.

Answering Governor Schwarzenegger’s Call to Action

If all students had access to a computer, then we could move much more cost effectively to incorporating digital books, digital files, and additional digital resources into the daily curriculum. This could also help school districts across California meet Governor Arnold Schwarzenegger’s call to make the state the first in the nation to offer schools free, Open Source digital textbooks for high school students. Furthermore, when all students can use their own computers, their teachers will be fully enabled to utilize free online tools like Google Docs, which allows users to create documents and share them over the Internet, and Microsoft’s Live@edu communication and collaboration service.

For this to really work—and to benefit the greatest number of students—this endeavor should be pursued at the state level, rather than locally through individual school districts. Consider the return on investment and the economies of scale that need to be in place for organizations to be interested in investing in advertising on mini-laptops. Computer companies would need the same wide-ranging incentives to want to participate in a program like this; ideally, the computer vendor would secure the mini-laptop advertisers via their established corporate, non-profit, or government agency connections.

Win-Win-Win-Win

If we can interest companies and non-profit organizations in paying to “logo-ize” mini-laptops for students across the state, and if we can convince computer companies to help with this effort, we create a win-win-win-win situation for everyone.

First, students win by having access to tools that they may normally not be able to access.
Second, computer companies win by providing a product that dramatically shortens the time and reduces the cost involved in the sales process—ideally, the advertising to “logo-ize” mini-laptops for students would cover the costs for the vendor, which provides them to the school districts for free. A computer company would only need to find the financial sponsors to purchase an open “for rent” location on the mini-laptop, instead of finding a district that actually has the funding to purchase the laptops outright.

Third, local school districts and the state win by removing a large expenditure (student computers and potentially recurring textbook costs) from the system.

And, fourth, the organizations (businesses, foundations, non-profits, and government agencies) that reserve a location on the computers benefit from low cost advertising and goodwill among their target audience within the local community.

It’s no secret that the state of California is in financial crisis. To meet the challenges we all face—as educators, as employees who work in the state, and as parents of school-age children—we need to get creative. If we can join together and apply new ideas such as this to our state’s educational system, we may help California become an educational leader in this environment of great turmoil. And I think that we can bring about great positive change in the lives of our students.

Rick Otto most recently served as the Director of Information Technology for the Sequoia Union High School District (SUHSD) located in San Mateo County, California. Previously, Rick was a manager at Hewlett-Packard where he held management responsibility for the successful delivery of IT services and support to Hewlett-Packard employees in HP’s Western U.S. sites, and of IT consulting and support services to Hewlett-Packard executives, including the office of the CEO. He is ITIL Foundations Certified and holds an MBA from San Jose State University.

Bray, continued from pg 16

Backchannels

Backchannel is the practice of using networked computers to maintain a real-time online conversation alongside live spoken remarks (Wikipedia: <en.wikipedia.org/wiki/Backchannel>). While I was at the EdubloggerCon, everyone had their laptops open and was using Twitter (<twitter.com>), Cover It Live (<www.coveritlive.com>), or a different blog to comment on the conversations. I, along with many others, was commenting through my blog at the same time so I could write this column for you. In allowing this to go on, the presenter has to trust his audience that they are on task or following along with his presentation. This means trusting that your teachers are getting what they need from the presenter and the ongoing conversations in the background. Many of the presentations were hosted in Elluminate (<www.elluminate.com>) where ongoing chats and the web conference could be archived.

Do you think you could allow these types of activities in your classroom with your students? Many of our new teachers and students multi-task and already backchannel during presentations and lectures. They text, use cell phones, and social networks to communicate and learn. If you can trust that your teachers and students can learn like this, perhaps these solutions can be just as effective as the EdubloggerCon.

Smackdowns

Vicki Davis, teacher and IT Director at Westwood Schools, GA, set up a Web 2.0 Smackdown where members of the audience were given three minutes to share a new Web 2.0 tool. This idea intrigued me for teachers, administrators, and students. Every day I find a new tool that I want to share. How about if everyone had a chance to showcase something they found? To view what people shared, go to <tinyurl.com/w2cmackwiki> to view an archive of the UStream of the Smackdown. A backchannel was going on with Cover It Live where links were being posted, and people even posted other websites that are similar.

The best things about these ideas are that they are very low cost. The cost for each of these is a room, access to the Internet, and maybe food for the participants. Actually, in some cases, there is no cost, because everything is virtual. Because of the tight economy, educators will continue to look for cost-effective ways to provide professional development. These are great ways for teachers to build community. I will continue to share creative ways of how professional development is implemented and look forward to hearing from you about what you are doing for professional development.

Resources:
EduBloggerCon 09: <www.edublogger.com/EduBloggerCon+2009>
Twitter Hash-tag: #EBC09
There's quite a bit of conversation going around about the revolution in interactive white boards (IWBs). The commercial brands keep adding more features, and software writers are updating their titles to include toolbars and menus that are positioned to make them easier to access when using these boards. But what if an IWB isn't in your budget? Well, are you brave enough to make your own?

Introducing Johnny Lee
Search “YouTube” for Johnny Chung Lee and you’ll find his directions for creating your own IWB (<www.youtube.com/watch?v=5s5EvhHy7eQ>). Mr. Lee hails from Carnegie Mellon University and has come up with a unique and easy way to create an IWB all by yourself. Assuming you own a computer and a projector, you’ll be on your way for about $60! (<www.johnnylee.net>)

You’ll Need a Couple of “Toys”
Lee’s idea requires the use of the controller originally created for the Wii Gaming System (Lee calls it a Wiimote). The cost of the controller is about $40. When the controller is used with the gaming system, it “reads” the infrared signal from the various hand-held devices to make the interaction appear on the screen. What Mr. Lee has done is use this ability to create the interaction between your computer and a blank space. To do this, you'll need a second piece—an infrared pen (IR pen). Searching for IR pens on the Internet will bring you pens ranging from $8 to $25. (I tried one of the cheaper pens, which worked fine but you need to hold a button down when using it. That seemed a little tricky for the primary set.) The IR search will also link you to a few sites that show you how to make your own pen using a regular ballpoint pen case. (Apparently, IR cannot be seen with the naked eye so, when you put batteries in your pen, it will look as if it is not working. If you want to check, look through your digital camera and you’ll see the red light!)

You’ll Need the Software
The final piece of the pie is free software you’ll need to download to allow your computer to “talk” to the Wiimote via Bluetooth. Software can be found online:
For Windows: <www.smoothboard.net>
For Windows, Mac, and Linux: <www.uweschmidt.org/wiimote-whiteboard>

Let’s Get Interactive
Now you’ve gathered all you need to make your own IWB. If you watch Lee’s YouTube video, he’ll explain that the Wiimote has a field of vision of about 45°. You’ll need to play with the location to find the spot that works best for your classroom set up. (A company called Penteractive sells IR pens as well as ceiling mounts for the Wiimote. I didn’t use these so try at your own risk: <penteractive.us>.) OK—so turn everything on and try out your new interactivity.

Things to Know
You will need to calibrate the Wiimote each time you turn it on. This is a simple matter of touching the screen in four places with the pen. Secondly, depending on the computer I was using to test out the idea, it may be necessary for you to be sure to either turn on the software before the Wiimote, or the other way ’round. Try it both ways and see how it works for your computer/operating system.

How About Some Software?
Now that you’re “fakin’ it” with the whiteboard, how about some free software? Open Source software titles are authored by developers who freely distribute their software (and its source) so that other developers can add features to the titles. This makes Open Source titles great for teachers with limited budgets who want to bring innovative titles to their classrooms. Try these:
TUX Paint
(K-6 Drawing)
<www.tuxpaint.org>
Open Office (well, it’s Office) <www.openoffice.org>

A Couple More, Just Because I like Them

Though not Open Source titles, here are a couple of sites that offer some pretty cool free resources. If you’re crazy about fonts (can you ever have too many?), try the “DaFont” site <www.dafont.com> for both Windows and Mac fonts that will bring presentations alive and motivate students. And if rhyming is your thing, try A Zillion-Kajillion Rhymes and Clichés at <www.eccentricsoftware.com/5up/try.html>. Click the “Try Before You Buy” button, enter a word and a list appears with all the possibilities (I found 800 for “free” and 50 for “computer!”).

We all hope these economic times won’t last, but our students can’t wait until things improve. These resources are just a few of the many and varied ways teachers are finding to bring the latest to the kids in their care—even if we may have to “fake” it for awhile.

Linda Oaks is a CUE Gold Disk Award Winner and a frequent speaker at CUE events. She holds a Masters in Educational Technology.

[Editor’s note: CUE is offering a new workshop at CUE 2010: Make/Take an Interactive Whiteboard. Register today for the conference and this workshop at www.cue.org/conference/.]

Pencil (2D animation) <www.pencil-animation.org>

GIMP (image editing) <www.gimp.org>

[Editor’s note: CUE is offering a new workshop at CUE 2010: Make/Take an Interactive Whiteboard. Register today for the conference and this workshop at www.cue.org/conference/.]
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TAGS: #CUE10, CUE10
As education funding continues to be cut, teachers need to be extra creative in bringing powerful lessons and experiences to their students. Loading a bus to travel to the eye of a storm may be an event that is impossible, but a virtual field trip through video conference that includes a live conversation with weather scientists can bring the storm to your classroom. Students can “visit” the missions of California on the web with photos and historical information to incorporate into a presentation for their classmates or other students. Online conferencing tools allow students to have meaningful literature conversations with students across the state who are reading the same book. Teach an artist-led art lesson and display student work on your school website for others to respond to. Turn on your computer and open the world to your students without spending a dime.

Title: JASON Mission Center – Operation: Monster Storms
Publisher: The JASON Project
Grades: 5-6
Media Type: Internet
URL: http://www.clrn.org/search/details.cfm?elrid=7975
Subject Area: Science
JASON’s weather unit, Operation: Monster Storms, transports students to the center of Earth’s most extreme weather events as they study the science needed to save lives and protect property. Students fly into the eye of a hurricane and chase tornadoes through Tornado Alley. From collecting data on the ground to using instruments in the sky and analyzing satellite images from space, students join leading weather scientists as they explore wild weather.

Title: California Missions
Publisher: University of California, Riverside
Grades: 4-6
Media Type: Internet
URL: http://www.clrn.org/weblinks/details.cfm?id=423
Subject Area: History/Social Science
Read an essay on the history of the missions, discover facts about each mission’s founding and location, get information about the photographers, and view historic photographs (1895 through the 1940s) of all twenty-one California missions. From the California Museum of Photography, University of California, Riverside.

Title: California Missions Site
Publisher: The Civic Group
Grades: 7-8
Media Type: Internet
URL: http://www.clrn.org/weblinks/details.cfm?id=3130
Subject Area: History/Social Science
This site provides information about each California mission, with mission music and historic pictures. Features include “two histories for each of the twenty-one California missions, with beautiful color photographs, fascinating black and white sketches, and, for the first time ever, authentic mission music. This music was written in the missions during the late 1700’s by the Spanish padres and the Native Americans who lived and worked there.”

Title: Skype: Video Conferencing Client
Publisher: Skype Limited
Grades: Teacher resource
Media Type: Internet
URL: http://www.clrn.org/weblinks/details.cfm?id=3014
Subject Area: Varied
Skype is a free, one-to-one video conference application that doubles as an instant messaging chat client. Group chat with up to 100 friends. Versions are available for Windows, Mac, and Linux platforms.

Title: ART with Mrs. Smith: “Tide Pool Collage”
Publisher: ART with Mrs. Smith
Grades: 1-3
Media Type: Video
URL: http://www.clrn.org/search/details.cfm?elrid=7699
Subject Area: Science and Visual Arts
Tide Pool Collage takes viewers to real California tide pools and shares life science information, social studies information about the explorer Ferdinand Magellan who named the Pacific Ocean, and art history information about Matisse and his influence on the world of collage. Art instruction features collage techniques, color theory, and composition.

The California Learning Resource Network (CLRN) is a statewide education technology service of the California Department of Education and administered by the Stanislaus County Office of Education, Brian Bridges, Director. Search the CLRN database at clrn.org. Permission is hereby granted to California educators to copy this material for instructional use. The document may not be distributed for profit.
It is a well-known fact that good teachers form the foundation of good schools. Studies show that there is a direct relationship between a school’s effectiveness in implementing standards-based education and the skill levels of the school’s professional staff. Over a decade’s worth of research indicates sustained, high-quality professional development is a strong component of improving student learning but that limiting professional development to only a few in-service days a year is ineffective in enhancing teaching (Corcoran, 1995; Elmore 2002).

So, it makes perfect sense that one of the most important investments of time and money that school or district leaders can make is in improving teachers’ skills and knowledge through high-quality, focused, and sustained professional development. But when there’s no money in the budget to fund it or no time in the schedule for teachers to participate in it, what’s the solution?

How about a free, high-quality professional development program featuring renowned education experts who are available on demand to present research-based strategies designed to promote student achievement?

The California Department of Education’s (CDE) Middle and High School Improvement Office (MHSIO) has created a Professional Learning Series featuring internationally-known education experts such as Dr. Douglas Reeves, Dr. Janet Zadina, and Dr. Kate Kinsella in video presentations focused on specific topics designed to promote student achievement in the middle grades. Each 30-45 minute video presentation includes handouts, discussion questions and activities, and a print copy of the presenters’ PowerPoint slides.

The Professional Learning Series is located on CDE’s portal for middle grades educators, Taking Center Stage—Act II (TCSII). The series may be used by individuals or groups at school sites for professional development. No travel is required beyond your computer terminal. Best of all, these presentations are free and are available on demand, 24 hours a day, seven days a week.

Coming to a computer near you! Visit the Taking Center Stage—Act II (TCSII) site at <pbs.cde.ca.gov/TCSII/> to screen the following features:

**AUGUST 2009** (archived at <tinyurl.com/nt4ccn>)
Dr. Douglas Reeves; Author, educator, and founder of the Leadership and Learning Center
Rigor, Assessment, and Accountability in the Classroom.

Dr. Reeves’ video series includes the following topics:

- Rigor in the classroom: expectations, power standards, feedback and grading, and the culture of achievement.
- Common formative assessment
- Leadership and learning
- Objective and subjective assessment
- The power of nonfiction writing
- Accountability in a learning organization
- Teacher leadership
- The power of networks

**SEPTEMBER 2009**
Dr. Janet Zadina, Neuroscientist and author
Applying Brain Science Research to Accelerate Student Learning.

Dr. Zadina’s video series focus on:
- Research findings on adolescent brain development
- Survival instinct
- Social nature of the brain
- Role of emotion in learning
- Using brain research to positively impact teaching and learning

**NOVEMBER 2009**
Dr. Kate Kinsella, Author and educator specializing in reading and English language acquisition
Promoting Engaged and Accountable Learning for the Adolescent Student

Dr. Kinsella’s video series incorporates lessons and teaching strategies filmed in California classrooms. The video series includes:

- How to maximize student engagement in the classroom
- Explicit vocabulary instruction
- Practical strategies for including all students in discussion tasks
- How to provide effective literacy lessons for less proficient adolescent readers and non-English speakers

More professional learning topics on TCSII:

Professional Learning for Beginning Educators: <pubs.cde.ca.gov/tcsii/ch10/beginningeducators.aspx>

Professional Learning from Content Experts: <pubs.cde.ca.gov/tcsii/ch10/contentexperts.aspx>

Sustained, high-quality professional development is an important part of improving student learning. Even though your site’s or district’s budget may be on life support, quality professional development that is free is still an option through the California Department of Education’s portal for middle grades excellence, TCSII.

Continued on pg 27
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Efficient and economical technology coordination is sound practice. These are lean times for technology funding, so now more than ever we need to look at what we do with our instructional technology and make informed decisions about what we need, what we don’t, and how to make the most of what we’ve got. Even in the best of times there is never enough tech support, so equipment and hardware that can take care of itself lets us focus on what we need to do with our technology. A reliable, familiar and stable user environment lifts barriers to technology integration and is a cost effective way to reign in troubleshooting and repairs. Reimaging desktop and laptop computers with an image suited to local needs is a solution to instructional, support, and financial problems. (An image is simply an exact replica of the contents of a hard drive that can be copied onto other computers.)

Easier Than You Think
As with any instructionally related innovation, start small, build on successes, and expand accordingly. My first year as Technology Resource Teacher was a walk on the dark side of instructional technology management. While on an all-Apple campus, there was no consistency in hardware purchases, operating system and software installations, or user environments. Few computers were connected to printers or any type of local network. No desktop security meant wildly different user environments from computer to computer. This all changed when I discovered a still shrink-wrapped copy of Apple Network Assistant. With existing hardware and some extra hours, I was able to assemble a local network and automate much of the maintenance that had formerly been done machine by machine on an only-when-critically-necessary schedule.

Apple had provided us with software to restore media configured to our district specifications, but restoring computers one by one was still more time consuming than possible in practice, and much remained to configure each one to local needs. Networking with my counterparts at our feeder high school introduced me to disk imaging and creating our own restore media. Soon afterwards, GageNet 1.0 was born. A single pass of a CD-ROM was able to restore our computers and standardize the user experience. No more troubleshooting—reimaging takes less time and is more effective.

Reimaging computers is an established and well-documented process. Help is readily available online and through user groups. You may very well know a counterpart at a nearby school who already has an imaging plan in place. If you’re running Apple hardware and software, the basic tools are included with the operating system. Having experience installing and troubleshooting software will help, but imaging is a straightforward process with a gradual learning curve.

What is the Standard User Environment?
A standardized user environment is an identical or mostly similar configuration for all the computers in an organization. The standard and predictable user environment reduces troubleshooting calls. With a predictable interface, end users become familiar with the features they need most on your campus and where they can find them. Desktop preferences, network settings, browser bookmarks, and printers are just a few of the settings that can be configured, freeing the end user to concentrate on the task at hand. The standard user environment lets administrators set access permissions for different user groups and keep the desktops secure.

When users become familiar and comfortable with the desktop environment, they become more proficient and begin to customize the environment to their needs. Local and network user accounts make this possible. The more familiar and comfortable users become with their computing environments, the more likely they are to seek their own solutions to computing problems, involve others in the process, and share what they know. More local experts emerge, freeing technology resource teachers such as myself from routine trouble calls, to focus more on curriculum and instruction. Local experts informally train others, raising the general level of instructional technology competency and proficiency for the organization.

Straight Talk
Deploying your image is the easy part, once you have taken care of the groundwork. Start with an inventory of your most common hardware and determine what its capabilities and limitations are. Meticulously make sure that your operating systems and applications are properly licensed. Survey your teacher, student, and staff users and decide which applications and features they can’t live without. Use your most recent and best performing hardware and begin building your image. Pilot this image thoroughly—bench test it with all applications, users, and combinations thereof. This is the time to nip any incompatibilities and security holes in the bud.
Install the latest operating system and application updates. Deploy gradually—once your latest image is in the hands of the end users, be alert to any anomalies that can be remedied before a larger scale deployment. Let the image creation and piloting processes take their time.

Instructional Implications
Frazier and Bailey cited national education statistics when they wrote in the formative The Technology Coordinator’s Handbook that most teachers claim a lack of technical support as a significant barrier to using technology. The standardized user environment lowers the barriers to full-on technology integration by removing the guesswork and unpredictable aspects of school computers. Desktop security and user-specific privileges keep hardware and software running the way they are intended to run while still giving users access to the applications and services they use the most. Teachers can have students use computers with confidence knowing that what’s been taught on one computer can be seamlessly transferred to any other on campus. On our latest image we’ve even included an icon in the dock that opens a QuickTime movie showing how to remotely log in to our user data servers. Each image version makes the computer a more transparent tool for learning and engagement and less of a temperamental machine standing in the way of technology integration.

Resources:

The venerable NetRestore has retired, but is still available and useful. Visit Mike Bombich’s site (<bombich.com>) for the full story and links to NetRestore’s robust descendant, DeployStudio.


Joyce Hinkson, Ed.D., serves as the technical director for Taking Center Stage—Act II (TCSII), the California Department of Education’s portal for middle grades educators. Dr. Hinkson can be reached at JHinkson@cde.ca.gov or (916) 319-0549.
<table>
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| September 11 | 2010 Annual CUE Conference Session Submissions Deadline  
www.cue.org/conference/present     |
| October 10  | CV-CUE 12th Annual Technology Conference, El Diamante High School, Visalia, CA  
www.cuehub.org/cvcue/           |
| October 17  | Kern CUE Technology Conference, Norris Middle School, Bakersfield, CA  
www.kerncue.org                   |
| October 23-24 | 21st Century Instructional Technology Conference, CUE-SN, Chaparral High School, Las Vegas, NV  
www.sdcue.org                     |
| October 24  | San Diego CUE Fall Tech Fair 2009, El Cajon Valley High School, Grossmont UHSD  
www.sdcue.org                      |
| October 31  | Tech & Treat, Gold Coast CUE, Ventura County Office of Education Conference Center, Camarillo, CA  
www.goldcoastcue.org               |
| November 7  | EdTech Classroom Conference—Working Smarter Together, IACUE, California State University, San Bernardino, CA  
www.cue.org/iacue/               |
| November 14  | CUELA Technology Fair, Mulholland Middle School, San Fernando Valley, CA  
www.cuehub.org/cuela             |
TriCUE, ONLINE EVENT ONLY  
www.cuehub.org/tricue/           |
| November 15  | CUE 2010 Outstanding Teacher and Technology in Learning Leadership nominations due to affiliates  
www.cue.org/awards/             |
| December 1  | CUE 2010 Conference Early Bird Deadline www.cue2010.org                          |
| December 4-6 | K-12 Technology Conference: Social, Global & Green, Town & Country Hotel, San Diego, CA  
www.clms.net/conferences/tech.htm  |
| December 8  | CUE Awards Submission Deadline www.cue.org/awards/                               |
| December 15  | CUE Board Nominations Deadline www.cue.org/nomination/                           |
| January 23  | OCCUE Technology Festival, St. John’s Lutheran School, Orange, CA  
www.occue.org                     |
| February 6  | EBCUE Cool Tools VI, Hayward, CA  
www.ebcue.org                    |
| February 9-13 | Macworld Conference & Expo Educator Strands, Moscone Center, San Francisco, CA  
www.cue.org/macworld/         |
| February 27  | SV CUE’s Technology Conference, The Harker School, San Jose, CA  
www.svcue.org                     |
| March 4-6   | Annual CUE Conference, Palm Springs, CA  
www.cue2010.org                   |
| April 15-17  | Leadership 3.0 Symposium, Santa Clara Mariott, Santa Clara, CA  
www.lead3.org                     |
| May 22      | 44th Annual California Student Media Festival, www.mediafestival.org               |
| June 27-30  | ISTE (formerly NECC), Denver, CO  
www.iste.org/necc/                |

For more information:  
www.cue.org/events/