



# MCCE NEWS

MONTANA COUNCIL FOR COMPUTERS  
AND  
TECHNOLOGY IN EDUCATION

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## Teachers adapt technology for use outside the classroom

By Vince Long

Since the introduction of the microcomputer in 1977, and its migration to the classroom in the early 1980s, concerted efforts have been made to train teaching staffs in ways to use this and other new technologies in the schools. While money for staff development generally lags behind money for the technology itself, there is some evidence that educators have embraced these systems both inside and outside the classrooms.

Thousands of articles have been written over the past 25 years detailing how teachers have effectively integrated technology into the curriculum from kindergarten through higher education. Improvements in software design have moved applications away from drill practice into the world of presentation and research tools. Students are able to collect and analyze data without the drudgery required with pencil and paper methods. Using the Internet has given teachers a wealth of options from academic resources to contact with curriculum experts.

While computers have been at the center of this revolution, other technologies have also found their way into the schools. Instead of sharing one telephone in what was usually a public place, it is common for teachers to have them in their classrooms along with voice mail, call forwarding, and other features found in any modern office. Teachers have access to imaging technology including color copiers, fax machines, digital cameras, video cameras, scanners, and video projectors. Two-video conferencing and distance-learning technology also figure in to the tools of the modern educator.

A controversy still exists whether all this investment in technology really benefits students but there is no question that teachers have embraced these tools and can adapt them to the tasks at hand. Public school teachers in Billings showed this recently during the strike that lasted nearly three weeks. Within hours of the strike, technology sprouted up as fast as picket signs. Communication and imaging technologies dominated in ways that were not possible in the past.

The most obvious tool during the ordeal was the ubiquitous cell phone. Several were evident at each of the

schools and a bank of them was standing by in the Billings Education Association office. If something happened at one school, it was moments before that information was relayed to the over 30 locations picketed around the district. Strike captains were in immediate contact with both the association and their teachers regardless of their location. Teachers on the lines remained in contact with their families as picketing and rally schedules rapidly changed.

Once the school district opened the 21 elementary schools using substitutes, teachers on the lines counted attendance of students (never over 30%), substitutes, and other information that was then called in to the association office where striking teachers entered it into a computerized database. If an elementary school needed more picketers, a cell phone call to their nearest high school brought them a number supporters.

Even the lowly walkie-talkie found a place during the labor action. As teachers spread out around an elementary to watch for substitutes, and others who would cross the line, these toy-like devices kept them in contact with one another without the expense of a cell phone. They also used them to send cheery messages to one another, buoying their spirits during the long hours of walking back and forth.

Video cameras, in the past only bought to picket lines by commercial broadcasters, were also a common technology used by teachers. As substitutes showed up for work

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## Screenshots made easy

by Kevin Croff

Screen shots can be a great way to grab images off your screen to make instructional sheets for students, develop cheat sheets for staff, design presentations or various other purposes. There are numerous free and shareware programs available for download to help you accomplish this, but you also have the capability to do this with the software sitting on your machine now. Below are instructions for capturing images on your screen for both PC and Mac and some tips for working with them in Word or AppleWorks/ClarWorks.

On the Windows PC :

Press the PrintScreen button on the keyboard (usually on the top right side) to take a "picture" of the screen, that is, the entire desktop. Hold down the ALT key when you press PrintScreen and it will capture only the active window.

Open a photo editing program or Word - go to Edit - Paste.

On the Mac:

Hold down Open Apple/shift/3 to take a shot of the entire screen or Open Apple/shift/4 to get some cross hairs and select the portion of the screen you want to take a picture of.

Your picture will be saved on the desktop or hard drive as Picture 1 - each shot after that will be named in numerical order (Picture 2, Picture 3, etc.).

To work with the picture in Word:

- Make sure the Picture toolbar is open and click on the text wrapping icon.
- Select how you want the image placed (Behind Text...).
- Crop and resize the picture then place it where you would like it in the document.

To work with the picture in AppleWorks:

- Click on the Toolbox at the bottom left of your document.
- Click on the arrow on the tool palette.
- Paste the picture in the document.
- Resize the picture then place it where you would like it in the document.

## Digitalkies 2003: NCCE's Digital film festival

by Terry Lankutis

Make a movie! Win prizes! See your video displayed on the NCCE Video Wall at the 2003 Techscapes Conference in Portland April 23-26!

The Digitalkies Contest is intended to showcase innovative teaching and creative learning. Whether you have used digital video for years or whether you are just getting started we encourage you to enter.

All the details for entry are listed on our web site at [www.ncce.org/digitalkies](http://www.ncce.org/digitalkies). This year's category is "Environments". So think out of that box and have your students make a movie about their interpretation/experience of this word. Brainstorm with your students, make it a class project, have your high school students work with kindergarten students, work with the music teacher to have student produced music in your creation rather than commercial (copyrighted) songs....the possibilities are endless!

The movie you submit must meet all the criteria listed on the web site and all required forms must be submitted along with your entry by the deadline of January 31, 2003.

Past contest winners can be viewed on the web and we have included links to several resources regarding copyright. This is a critical issue and we encourage you to teach your students about the importance of following the law. It would be very disappointing for them to go to all that work to enter the contest only to be disqualified because of copyright infringement.

If you have any questions regarding the contest, please feel free to contact Ms. Terry Lankutis at [LankutisT@aol.com](mailto:LankutisT@aol.com).

Happy Filming!



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ers and Technology in Education.**

<http://www.iste.org>

## Teachers adapt technology for use outside the classroom

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they were videotaped. In fact, some of the substitutes brought their own cameras and videotaped the picketers right back. Even building administrators had video cameras that they carried as substitutes and students filed in and out of the schools. Still cameras, both digital and film-based were also in evidence on the lines.

Photographs and video arrived at the association office in a variety of formats. Some teachers burned images to Compact Disc while others asked about using a scanner. One even asked if there was a place to "upload" the images. There was no anxiety about using the technology. Those who had a need simply embraced it.

Strikers in the age of the Internet have many tools at their disposal. Email can keep individuals in contact with one another and be used by groups to keep their members up to date. The school board solicits public feedback and all board members have an email address. Users of email are much more likely to send a response than they would if required to overcome the "gumption trap" of finding an envelope and stamp. Even the local newspapers were accepting letters to the editor via email.

And what would a labor dispute be these days without web sites? Both the school district and the union had web sites on which they told their side of the story. The school district took on the complicated task of explaining fiscal issues while the union's site had news from the picket lines, negotiation updates, and pictures and names of substitutes. Unlike the stodgy printing press of the past, putting information online is fast, easy, and inexpensive, a

process that our founding fathers never envisioned, but provided for in the Bill of Rights. Even the local newspaper felt pressured by the immediacy of the web and broadcast journalists and updated their web site several times per day with the latest.

The presence of the web does not mean that the press was dead. The Billings Education Association produced two newsletters per day that were distributed to picketers on the line. Using their technology skills, editors were not using a typewriter and rubber cement to publish this newsy digest but rather used the latest in desktop publishing software, Pagemaker, on a speedy Macintosh computer. Once printed and distributed to the troops on the line, the newsletter was sent by fax to the local media and by email to the webmasters of both the union's website and the state association's site where they were promptly put online.

To the few teachers who participated in the last strike in Billings in 1975 and were on the line again in 2002, these technology applications were nothing short of amazing. Jim Murphy, a biology teacher at Senior High, said that the cell phone really makes a difference. He related that during the 1975 strike no one on the picket lines knew what was going on at the other schools. A nightly rally was held as much to keep people informed about the day's events as to bolster their resolve.

Retired teacher, Malcom Bailey, showed up with his picket sign from 1975 to walk the line. This time he had a technological advantage as he was wearing a hands-free cell phone, keeping his hands free to hold the sign and to wave at passing motorists honking in support.

While the school district did not intend for past technology training to be used against them in a strike, they can rest assured that the staff development was worthwhile as teachers adapted to the new situation and integrated technology into the picket line, just as they do in the classroom.

-V.L.

### **MCCE NEWS**

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**Next Submission Deadline:  
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**This and past issues of MCCE News are available on the World Wide Web at:  
<http://senior.billings.k12.mt.us/mcce/>**

### **WANTED**

**Newsletter Articles for MCCE News**

Software Reviews,  
Classroom Technology Tips, Student-  
Written Stories, Web Site Reviews

# Web Sightings

## Interesting Places on the Web

### BigBands Database Music Library

<http://www.nfo.net/index.html>

Extensive information about American and European Big Bands. If you want to find out something related to the swing era, this should be your first stop

### The Static Electricity Page

[http://www2.kenyon.edu/depts/physics/EarlyApparatus/Titlepage/Static\\_Electricity.html](http://www2.kenyon.edu/depts/physics/EarlyApparatus/Titlepage/Static_Electricity.html)

Interested in generating, storing, and discharging static electricity, then you'll get a charge out of this site.

### Science Toys You Can Make With Your Kids

<http://scitoys.com/>

This site has a great set of science projects covering topics from radio to magnetism to optics to biology. Following the well illustrated plans, you can build a variety of scientific tools for next to nothing.

### NASA Telerobotics Page

[http://ranier.hq.nasa.gov/telerobotics\\_page/telerobotics.shtm](http://ranier.hq.nasa.gov/telerobotics_page/telerobotics.shtm)

Find out what is the latest in remote-controlled robots. Be sure to click on the "Cool Robot of the Week."

### Arts and Letters Daily

<http://aldaily.com/>

News and reviews from the Chronicle of Higher Education covering "philosophy, aesthetics, literature, language, trends, and breakthroughs."

### Montana Council for Computers and Technology in Education Membership Form

Last Name \_\_\_\_\_ First Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Home Phone \_\_\_\_\_ E-mail \_\_\_\_\_

New Member \_\_\_\_\_ Renewal \_\_\_\_\_

Area of Interest: College \_\_\_\_\_ High School \_\_\_\_\_ K-8 \_\_\_\_\_

Please be an active member by indicating your area(s) of interest:

\_\_\_\_\_ willing to be an officer \_\_\_\_\_ willing to submit articles for the newsletter

\_\_\_\_\_ willing to be on the Board of Directors \_\_\_\_\_ willing to work on MCCE committees

\_\_\_\_\_ willing to be on a committee for a convention

Dues: \_\_\_\_\_ \$12.00 per year \_\_\_\_\_ \$30.00 for 3 years

Mail the completed membership form and dues to:

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