

Spring TechNotes

Strategies for using technology with children

Center for Educational Technology
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FIELD NOTES FROM NCCE

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INSIDE

There's much to do—and people who can help

Financial blues

By Marty Karlin

The devastating effects of the budget cuts will extend to technology. Purchases will slow. Support staff will be cut. Professional development funding will disappear. Equipment that falls into disrepair will be ignored.

It's easy to moan about the lack of funds, roll over, and do nothing. Don't let it get you. Even in the best of times it takes energy and determination to incorporate the use of technology meaningfully into the curriculum. There's still lots that can be done. It takes more coordination, planning, and willpower during hard times.

At school sites much is in place. The web is widely available. A computer is on every teacher's desk. Labs are common. Knowledge is growing and skill levels are rising. Basic software tools and applications are widely available. References, lessons, curriculum, and other resources are available. There is often a person on site who can help. The ESD instructional technology and technology infrastructure support system is on call.

Start acting now. This spring take stock of the equipment you have, plan and do maintenance, take a look at the skill set expected of staff and the skills they currently have, and set goals for next year.

Create a plan for cleaning up and storing computers so that they are fully functional for next year. In the ESD labs we reinstall operating systems, helper apps, and software each year. This helps unclog the arteries and makes for fewer problems in September. Put together a team of students to go through all the computers in your school to do this work. Larry reminds us that students are already there and they work for free. Call Larry (541.858.6748) and he can help you create a cheap, simple system that works for your school.

Decide on the programs and versions of software you're going to have on your computer, establish a minimum set of skills that you want all the staff to master, and spend some time working on that skill set, maybe during inservice week. Have the teachers learn how technology can be incorporated in their lessons, and have them begin gathering resources and creating lessons. Call a technology specialist for assistance and direction, or visit our website at www.jacksonesd.k12.or.us/it and explore our reviewed collection of curriculum and workshop links.

**... students are
already there and
they work for free.**

See Blues on next page

Blues (continued)

A superficial use of computers is easy to achieve. Handing students a program or turning them loose in a lab to type a paper is easy, but it doesn't touch the true power of the technology to enhance learning. To move to higher levels of use and take advantage of what technology has to offer requires planning and preparation. It's hard to do it alone. Find ways to get with others and share the load. Much more can be accomplished as part of a group. It's also more fun.

Christopher Moersch developed the Technology Use Profile designed to explore the current role of technology use in the classroom by measuring classroom teachers' level of technology implementation, personal computer use, and current instructional practices. This questionnaire is at www.learning-quest.com/LoTi/index.html. To see where you fall in his continuum go to www.learning-quest.com/LoTi/lotibreak.html for a description of levels of use.

The moral of the story is don't let the financial blues get you down. There's much to do—and lots of people who can help.

Field Notes and reflections from NCCE

By Marty Karlin

Attending high quality regional and national conferences is always stimulating. This year's Northwest Council for Computers in Education (NCCE) conference was held in Seattle and was especially satisfying, particularly in a proud-parent kind of way.

There were hundreds of sessions, hands-on labs, workshops, and over 20 featured keynote speakers for the 3000 attendees. The technology specialists from Jackson ESD were well represented among the presenters. Nick Viani offered a session on writing strategies using his collaborative "Write

high quality work your ESD instructional technology specialists are engaged in, and what opportunities are available to you through the ESD's Instructional Technology program.

As a backdrop I want to mention that standards are huge. Schools should review them and begin to address site and district goals. National standards for students, teachers, and administrators now exist. These standards can be found at cnets.iste.org/sfors.htm (for students) cnets.iste.org/teachstand.html (for teachers) cnets.iste.org/tssa/framework.html (for administrators)



Site." Larry Francis presented "Sound Practices," the use of text to speech. Tina Mondale served as a panel member on Distance Education sponsored by Northwest Regional Education Lab. Marty Karlin and Tina spoke on "The Art and Science of Online Learning." Marty, Larry, and Scott Preston from Klamath County School District facilitated an all-day session for Technology Responsible Persons. Morgan Cottle from Ashland presented on the efforts his district has made based on their TLCF grant. I felt proud that we have so many talented technology-skilled specialists and teachers in our region willing to share their work and ideas.

Since many Southern Oregon educators couldn't be there, I thought I would offer a virtual experience and describe the

Technology Responsible Persons

Here lies one of the essential keys to successfully integrating technology. There exists a growing need for TRPs in schools to help maintain existing technologies, provide onsite instructional technology leadership, and plan for the future. The ratio of students to computers is now close to 4:1. District and regional support personnel cannot keep up. Districts continue to acquire systems faster than they hire personnel to support them. There is a growing assortment of new and older, yet still functional, technologies. There is a growing diversity in skill levels of educators and administrators.

See NCCE on next page

NCCE (continued)

There is a growing gap between what one person can possibly know and what there is to be known in the world of technology. The people standing between schools and infrastructure-collapse are the TRPs. Schools must dedicate resources to the support of these individuals. Site-based TRPs must connect with the larger universe of regional TRPs to save themselves time and energy. "It takes a village," as Mr. Floppy is fond of saying. No one can do this job alone.

To that end the ESD has established a listserv where TRPs can post questions and offer solutions to hundreds of others of their ilk. We have a new web page specifically designed for TRPs. It's at www.jacksonsd.k12.or.us/it/trp. A myriad of TRP resources is posted there. We will be making a special effort through the listserv to organize meetings at the end of May in each county. A resource that you will be hearing more about in the future is the Generation Yes program. See how you can harness the energies and skills of students to help in your school. GenYES is found at www.genyes.org/genwww. Larry Francis is available to help your site develop a system for computer maintenance.

Nick Viani has been working with technology assisted writing for about 20 years. His latest project is the Southern Oregon Write Site, an online, interactive environment for sharing writing and digesting responses. The site is accompanied by lessons and resources that take advantage of communication tools on the web. In his recent SOU course, Nick referred to an online article, "Notes from Peter Elbow, Writing Without Teachers," that categorizes and cites major elements from Elbow's classic, *Writing Without Teachers* (linked from the Southern Oregon Write Site). Elbow believes that the way to learn to write is to write — a lot. Nick's current work provides the tools and structure to do just that. Nick's Write Site is now playing host to writers throughout the state. (When it becomes world famous we can say we knew him when.) Check out the Write Site and related resources at www.jacksonsd.k12.or.us:591/it/cpost/sows.

Larry Francis speaks five languages (8 if you include logo, pascal, and HTML). For many years Larry has explored the powerful links between speaking, singing, and language learning. For Larry, writing is an old technology that you use to make speech stand still. Digital audio is a newer technology that makes speech stand still. Kids can see and explore the connections between writing and speech without having to worry about the output. Larry's favest things at NCCE besides the dozens of oysters @ the Brooklyn Oyster Bar were Clicker4 and DeepFreeze. *Clicker4* www.cricksoft.com is powerful language arts software that includes word processing, graphics, text-to-speech, and audio recording. It's expandable, so you can add graphics and record sounds. I'm looking forward to showing it off here at the ESD. *DeepFreeze* www.deepfreezeusa.com is security software for

Windows that allows users to make whatever changes they want but reverts to the installed configuration when the machine is restarted. Elegant in its simplicity and open in its entirety: users aren't locked out of anywhere. But whatever changes they make disappear on restart.

Hall Davidson, the closing NCCE keynote illustrated the strong connections between text and speech when he played an interview in Spanish for the audience. Very few, including those who had some Spanish could understand the interview. When captioning was added (you turn on captioning in the menu using your TV remote) even those who spoke little Spanish were able to make much more sense of the spoken word. Technology has provided Larry with a playground to explore the wonders of text-to-speech. His web page at www.jacksonsd.k12.or.us/it/staff/lf/sound_practices describes his views and offers resources to educators.

John Chambers, the CEO of Cisco called eLearning the next killer app on the web. Over 50,000 high school students and a couple million college students are learning online. This growing system of education is providing flexibility, a tool set, a communications system, and a contemporary learning medium unlike any before it. Tina and Marty have been exploring this world and all its intricacies for the past several years. They have developed Southern Oregon Online School, an Internet-based high school as a consortium among regional schools, and are involved in the development of a statewide system to help make courses, professional development, resources, and coursework available to high school teachers and students throughout Oregon.

Besides the aforementioned workshops, Tom Glover has been putting together science workshops with a special focus on science inquiry, and a website featuring local weather and climate. Look for it at www.jacksonsd.k12.or.us/it/weather.

Joel Brain's specialty is the use of video in the classroom. He has created a travelling lab of computers and cameras that he accompanies into classrooms for use by students over a period of several weeks. Students learn to plan, storyboard, shoot, and edit videos that support all curricular areas. See the article describing our plans for the travel labs in this issue of TechNotes.

Next year's NCCE, Techscapes, will be held in Portland. Find a way to attend. It's worth the effort. In the meantime take advantage of the websites referenced in this virtual visit to NCCE and the expertise available locally.

ThinkQuest Live 2002
"Exploring the Future of Learning"
July 20-21, 2002 - Seattle, WA
www.thinkquestlive.org

Instructional Technology Summer Inservice

This summer, the Instructional Technologist department at Jackson ESD is pleased to offer two intensive summer professional development opportunities: Online Learning Institute, and Language Arts and Language Acquisition Institute.

Online Learning Institute, June 24-28

The Online Learning Institute is a five-day, all-day event for teachers serious about getting into the world of Internet-based learning. This weeklong June workshop will put an online course in the hands of teachers, train them to teach on the web, and assist in making the course available online to your students. This workshop is open to teachers throughout the state who want to teach for an online school or are just interested in adding an online component to a face-to-face class. A separate pullout in TechNotes provides detailed information.

Language Arts and Language Acquisition Institute (LALA), August 19-23

Language Arts and Language Acquisition (LALA) is a collaboration among the Migrant Education, Special Education, Curriculum, and Instructional Technology programs of Jackson ESD to provide a week of intensive, one and two-day workshops revolving around various aspects of language acquisition for all students. LALA is part of a larger inservice week, "The August Institute," involving several Southern Oregon school districts. In addition to the offerings described below, learn more about The August Institute at www.jacksonesd.k12.or.us/it/lala.

Migrant Education

Migrant Ed will present a two-day workshop for elementary and another for secondary teachers on strategies for mainstreaming English Language Learners (ELL) into regular classrooms.

What Works with Second Language Learners and Why?

Prepare yourself for that first newcomer who comes into your classroom not knowing one word of English. Begin by becoming aware of the personal resources you already have, and learning how to project that welcoming attitude to the new English Language Learner (ELL) in your class. In this training, methods and techniques are presented that are especially useful with ELLs. This session gives you the tools to meet the needs of your ELLs within the framework of the regular classroom. An added bonus gained from this session: these methods and techniques will work with *all* of the students in your classroom! Separate two-day sessions for primary/elementary and intermediate/secondary will be presented.

Jackson ESD Curriculum

Jackson ESD Curriculum is contributing the following workshops to LALA week.

Early Reading and Federal Legislation

New federal legislation provides focus, incentives and potential sanctions for school success with early readers. This one-day overview will provide sessions on the "No Child Left Behind" legislation, recognized "Researched-Based" Programs, school implementation, grant opportunities and reading programs.

Differentiation by Design

Meeting the needs of TAG (talented and gifted) students in a regular classroom setting can be challenging. Come network with other teachers and share ideas. Participants will learn what the law requires, the role of the classroom teacher, how to write, manage, and conclude a PEP, strategies for delivering TAG services, how to make connections to the benchmarks, and what resources are available.

Storytelling, StoryFest and Speaking Benchmarks

Barbara Griffin, Children's Literacy Specialist and Storyteller extraordinaire, will share stories and teaching strategies to help students understand traditional story research, story analysis, and how to prepare preparation for story presentation. Barbara will provide handouts for guidance in preparing students to succeed as storytellers during classroom activities. Included is information about StoryFest, a student activity in which students come together to present traditional stories. Participants will practice scoring of student storytelling by viewing videotapes of previous StoryFests.

Super Seven Reading Workshop

Looking for creative strategies to help students meet the state reading standards? Join fellow educators in this interactive and practical training for grades 2-10. Review the seven reporting categories of the Oregon Reading/Literature test, including close examination of the eligible content and sample test questions. Learn instructional strategies and participate in classroom activities to strengthen student skills in reading areas.

Center for Educational Technology

Kelly Bryant, ESD Media Specialist, will offer a full day session to help mediabrararians put the Internet to work in their schools.

Tools, Techniques, and Tips for Library Media Specialists

Get yourself organized to help your school with their web needs. During this all-day session you'll get practical tips on how to organize and publish web resources for staff and students efficiently using your own web page to house your search sites. You'll also learn how best to teach electronic search strategies to students both for online and print resources. This will be a wonderful opportunity to meet with other librarians to discuss media life in the digital age.

Instructional Technology

Instructional Technology will feature two days of technology-assisted writing using the Write Site and other digital writing resources; a two-day workshop on using audio to support language acquisition and language arts; and one day on using software and learning strategies to enhance reading instruction.

Technology-assisted Writing

Teachers and students write to communicate effectively. Tenets of the writing process follow a path that shapes student drafts, revisions, response sessions, and teacher feedback into final copies. Driving the process is the writing curriculum, where carefully crafted lessons focus on strategies authors employ to improve their writing. The role of technology in this process is a not-so-subtle supportive role. Teachers involved in ESD writing projects using the Write Site and other technologies observe improved student writing, increased enthusiasm about their writing, and greater student involvement in responding to classmates' writing. Participants in this two-day workshop will write, respond online, join in a literature discussion circle, demo eJournals as part of an I-Search research project, explore online resources to support writing instruction, and develop and share writing lessons as members of our local cohort of Language Arts teachers.

Audio Tools for Reading and Writing (a.k.a. Sound Practices)

Reading makes text talk. Writing makes speech stand still. So, audio has powerful uses in helping students with language learning and literacy. With computers and free/cheap software and hardware teachers can now take advantage of this learning modality. Workshop participants will go deep into text-to-speech and sound recording freeware for both Mac & Wintel platforms. At the end of this 2-day workshop, participants will leave with Oregon State Standards-based strategies for using digital speech and audio, lessons they've created themselves to go with the strategies they've learned, practical skills necessary for making the (free) software and cheap (\$6) hardware work, and access to scads of resources on the web. Participants will create text documents, PowerPoint presentations and slide shows, and a web page—all with sound files inserted. Learn more at www.jacksonesd.k12.or.us/it/staff/lf/soundpractices.

Technology in Primary/Elementary Language Arts (presented by Christine Beck and Kary Rogney)

This workshop will highlight successful projects, software, and strategies to integrate technology into the primary Language Arts curriculum. Hands-on activities, demonstrations, and Internet resources will be shared and discussed. Participants may be asked to switch roles from teacher to primary child in this presentation by the Central Point Tower of Primary Power..

Special Education Program

Not Being Able to Speak is Not the Same as Having Nothing to Say

For student with disabilities—even those with severe disabilities and those with little or no functional language—communication is a very important skill. Other ways for those students to “speak” are to use sign language, communication or adaptive devices, and picture symbols. Sessions about these communication systems will be offered, covering low tech as well as high tech tools. Another session will offer practical answers to these questions about assessing language skills for those with disabilities: What tests can be used (formal and informal)? How can functional communication needs be determined in real life settings? How can the communicative intent of behavior be examined? If you work with children who have language difficulties associated with a disability (whether in a special education or regular education classroom), these workshops will give you some excellent ideas!

Part 1 of a 3-part series on using Linux to set up an Intranet Web server and Windows and Mac file and print services

Open \$ource: free servers

By Gary Frankenberry, Grants Pass High School

You've got your district's web server. If your situation is like mine, all the computers in your school are protected behind your district's firewall/proxy. This is good, as it protects your computers inside the schools from Internet-based attacks. But you might want an *intranet* web server inside your district's firewall for internal school access.

For example, you might do this if you want to set up some web-based discussions and forums for your staff that won't be available to the "outside" Internet world. Or you might want to do this if you want your students to write some web-server-side CGI or PHP scripts. Or you might want to write server scripts that store and fetch information from a backend database for delivery of dynamic html content. Or you might want to serve up a web-based calendar/scheduling/appointment application for your staff.

I set up a web-server/file/print server in my classroom that can be accessed by everyone in Grants Pass School District schools, but cannot be accessed from the outside "Internet world." Perfect for my Advanced Web Page Design students to learn some server scripting, and a good place to deliver intranet content to staff. This three-part article series describes how you can do this, on the cheap.

As a plus, you might want to throw away that old MS-Windows NT/2000 server you were using (not the hardware, just the Windows NT part), or that Novell server (again, just the Novell software, not the hardware), because the setup I will describe can offer the file and print services for both Windows PCs and Macintoshes that Windows NT/2000/XP (or Novell) offers, and it can be done at considerably lower cost.

How are we going to do this on the cheap? How can you set up a web server, and even replace a Windows NT Server or Novell Server, at a cost of nearly zero dollars and zero cents? Does it all sound "too good to be true?"

Well, it's not: we'll do it by using Linux as the Operating System. This is the first article of what will be a three-part series on how to accomplish this.

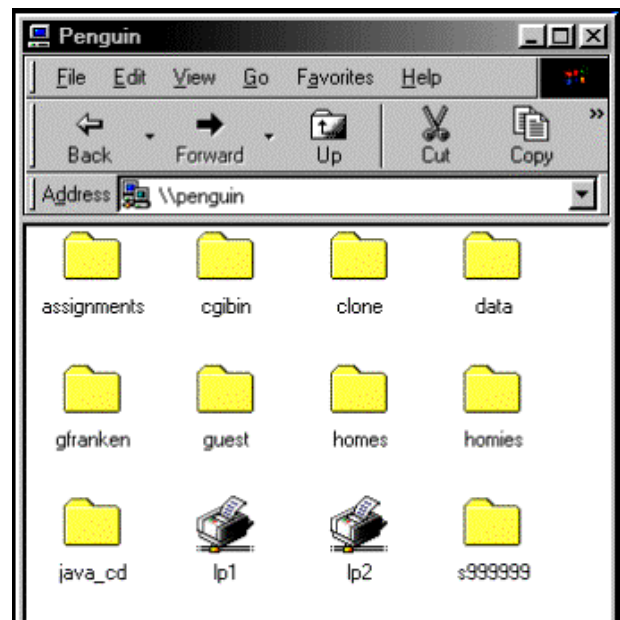
Linux is (Mostly) Free

What many people do not understand is that the Linux OS (more correctly called GNU/Linux), and most of the applications that you can get with it, are free. Linux is "Open Source" software. Various companies do sell Linux. They try to make money by selling manuals, support, and value-added

software. These companies bundle the GNU/Linux programs together into an easy-to-install package called a "distribution." But, because of GNU/Linux copyrights, each company selling a distribution of Linux must make their basic distribution available for download—for free.

What Software Comes With Linux?

What software is typically bundled with Linux? One key program is the "Apache" Web Server, a far better and more secure web server than Microsoft's IIS (Internet Information Server). Another application that comes with Linux is "Samba," which is a program that allows a Linux server to emulate a Windows NT/2000 server, or deliver Windows peer-to-peer shares. Finally, "netatalk" is a program that allows a Linux Server to provide Apple Macintosh file and printer sharing services. A complete Linux distribution also comes with thousands of other programs, including a nice ("windows-like") GUI called KDE that allows you to use Linux as a workstation.



This view is from a MS-Windows screen (using Network Neighborhood) showing a list of the directories and printers being shared from my Linux computer (whose name is Penguin). Linux runs a program called "Samba," which lets it emulate a Windows 2000/NT/XP server, or a Windows peer-to-peer share. Linux will also provide these file and print services for a Macintosh, using a program called "Netatalk."

How Do I Get Linux?

To do it for \$0.00 cost, you need two-things: a high-speed Internet connection, and a CD-Recordable drive. You will download a Linux distribution, and then burn Linux onto (three) CDs. The closest Linux Mandrake site is at Oregon Statue University. Go to <ftp://ftp.orst.edu/pub/mandrake/iso>. There you will see three huge .iso (CD-image) files, each about 648MB in size:

1. Mandrake82-cd1-inst.i586.iso
2. Mandrake82-cd2-ext.i586.iso
3. Mandrake82-cd1-supp.i586.iso

After downloading these three files, use your CD-burner software to burn your three Linux CDs. You can then begin the install process by booting the server computer from the cd1 install disk.

I Don't have a CD Burner, high-speed Internet Connection, the Time, or the Expertise—How Can I Get Linux?

Go to www.cheapbytes.com. Click "Enter the Store." Scroll down to the line that says: "Want to Order Mandrake Linux 8.2?" Click on "3CD-ROM Set, shipping, \$5.99." Click on "order." Click on "Check Out US." Fill in the order form (you'll need your credit card). Total cost is \$10.99 (\$5.99 plus \$5.00 S/H).

I Know I'm Going to be Lost, I Want the Manual—How Do I Get It?

Order Mandrake Linux 8.2 direct from Mandrake. Go to www.mandrakestore.com. You want the "Mandrake 8.2 Powerpack" at \$69 + \$15 shipping for a total of \$84.00. (This is a 7-CD set with manuals.)

Or, download the manual in Adobe PDF format or html format from www.linux-mandrake.com/en/fdoc.php3. This is the manual to the older version 8.1 of Mandrake Linux—the newer manual to the 8.2 version is not online yet, as far as I know. However, Mandrake does provide a (wonderful) tutorial on the 8.2 install process (with lots of pictures). Find it at www.linux-mandrake.com/en/demos/Demo/Mandrake8.2/Install.

Finally, you could follow the more expensive route. Go to Staples or Fry's Electronics, and purchase a copy off the shelf. You do *not* need the ProSuite Edition. Price will vary from \$70.00 to \$150.00. Given that there are no client licenses to buy (like there are with Windows XP, 2000, or NT), even this most expensive route is relatively cheap when you consider the TCO (Total Cost of Ownership).

Wait a Minute! What Kind of Computer Hardware Do I Need for Linux?

Mandrake Linux (functioning as a Server) requires a computer with a Pentium, Athlon, Duron, or Thunderbird processor, preferably 300MHz or faster, with 128MB or more RAM. A 20GB hard disk drive would be adequate. A computer that can boot from its CD-ROM drive is needed.

Please note that Linux Mandrake, unlike other distributions, requires a Pentium, Athlon, or Duron processor—it will *not* install on older Intel 486 processor-based computers.

Since this computer will be a web server as well as offering file and print services for Windows and file and print services for Macintosh, more RAM (256MB to 1GB) and a bigger hard disk drive (40GB to 100 GB) would be better. (Note: a good combo would be twin 40GB HDs, one primary, and one for mirroring or backup, with 512MB RAM).



This screen clip shows the language configuration part of the Linux Mandrake install process. The installation is graphical with clear instructions at each step.

Can't I Install Linux Mandrake on Macintosh?

Yes, Mandrake Linux is available in a version for the Macintosh; but since I don't have any experience with that, I'll limit this discussion to the PC-route.

What Else Do I Need?

Your Linux server should have a fixed IP address. My District Information Services staff suggested to me a fixed intranet IP address (a type of IP address designated for internal use inside a firewall that starts with 10-dot) that I could use for my Linux server (it's 10.5.5.128). You should also know the IP address of your District's Domain Name Server computer (DNS server). Finally, if you have a router (gateway) IP address for your Internet connection, you should have that.

If you plan to provide printer shares to printer(s) connected to your LAN, you should know their IP address(es).

See Linux on next page

Linux (continued)

Although a typical Linux installation is getting better at hardware detection, it is probably a good idea to know what brand/model of NIC (Network Interface Card), and what brand/type of video card your computer is using.



What About Other Linux Distributions?

I've heard that Red Hat Linux, Suse Linux, Debian Linux, Elx Linux, Redmond Linux, Caldera Linux, Corel Linux, and Slackware Linux are good distributions of Linux.

I've heard that "Red Hat Linux" is best. Why do you use Mandrake Linux?

There are currently six major distributions of Linux: Mandrake, Red Hat, Suse, Slackware, Debian, and Caldera. There are about 50 other minor distributions, most of them specialized. There are distributions for the Macintosh, as well as computers based on other processors. Some distributions specialize as servers, some as workstations, some as both.

While Red Hat Linux is the most popular, I like the Mandrake distribution, because it is one of the easiest for the neophyte to install, and can be configured as a server, workstation, or both. It comes with a program called "Webmin" which allows you to administer it from another computer's web browser. The popular Red Hat distribution is great for a server, not so good for a workstation.

Isn't Linux Hard to Install and Configure?

Yes and no. Relatively speaking, no. Remember that most PCs and all Macs come with the operating system preinstalled and preconfigured. If everyone who owned a computer had to get a distribution of Windows (Windows 95, Windows 98, Windows 98SE, Windows ME, Windows NT, Windows 2000, or Windows XP) and install and configure it from scratch, Windows would quickly gain a reputation for being difficult to install and configure.

In addition, more people are familiar with Windows, so there's more Windows expertise and assistance nearby, when you need it.

So, yes, Linux can be daunting and tricky to install and configure—it is not Windows, it is not the MacOS. It is both

multi-user and multitasking. It can be configured as a server, a workstation, or both. But, within the last year, Linux distributions have become much easier to install and configure. If you struggled with installing Linux two or more years ago, please understand that the whole process has been greatly simplified and improved.

In fact, the latest distributions of Linux typically autodetect and autoconfigure most sound cards, video cards, CD-RW and CD-ROM drives, DVD drives, zip drives, scanners, USB ports, and even firewire cards. Software is available to connect and use your Palm Portable or your digital camera.¹

What's In The Next Two Articles?

Part 2 of this series will focus on

- details on the Linux install process,
- setting-up a web server,
- setting up Windows and Macintosh file shares on your Linux Server, and
- setting-up Windows and Macintosh printer shares on your Linux Server.

Then, in Part 3, the last article of this series, I will discuss

- setting up specific intranet web services (forum discussions, calendaring/scheduling, classroom assignment posting, etc.),
- using a backend SQL database (Mysql and Postgresql), and
- PHP and Perl server-side programming and scripting.

References/Resources:

To see a list of links of resources regarding Linux and open source software that is available to educators, visit www.jacksonsd.k12.or.us/it/information/tn/linuxresource.htm.

- 1 Off topic, but the other night, at home, I found a great Jazz Internet Radio Station, which I access from Linux using a program called Xmmms (with MS-Windows, you would probably use Microsoft's Media Player). With my new high-speed cable modem Internet access, I get very good sound quality.

"The Summertime is Comin'!" as the Scottish folksong proclaims, and for those of us with at least one foot in the tech whirl, it's not all wild mountain thyme and purple heather, bowers, and such. There are things we should be doing to get ready.

Back up everything important to your school or district server. Everything on this earth will someday fail. The someday for your hard drive may be this summer. If your work is backed up, it will be easy not to care quite so much.

Throw away the ink jet cartridges now in your HP printers. They'll dry out over the summer and be unusable anyway in a couple of months. Or check out the computers and printers to your staff and have them use them during the summer and keep the toner toned while they become more proficient. Or remove the cartridges from the printers, put them in sealable baggies, suck out the air with a straw before sealing, and put them in the 'fridge right side up. (Don't try this with Epson printer cartridges: once you remove them, they are ruined.)

Making students better viewers

TV Turnoff Week

By Kelly Bryant

As the Jackson ESD Materials Specialist (library media specialist), I am always advocating using materials to help students, staff, and other media specialists solve problems. That includes television. Might sound like blasphemy coming from a lifelong book lover, and promoter of reading, but it really is part of my job. TV Turnoff Week, which was observed April 24-30, really helps us teach students how to use television to get information and, yes, be entertained. Although Television Turnoff week has come and gone, here are some thoughts and ideas on how you can promote it all year around.

As a classroom teacher, I constantly was telling my students that reading has two purposes—information and entertainment. That rule goes for all of our sources in the library. Websites, electronic databases, videos, DVDs, and yes, again, television.

We need to teach our students how television can be a tool, rather than a mindless time-sucker. One way is to model in our own classrooms. Choose a program that the class is going to watch. Put it on and show how students can mentally interact with what's going on during the program. It might be as simple as giving them some key concepts to watch for, or having them come up with one idea or segment they thought was interesting.

Give students a way to chart their TV watching PRIOR to the turn off week (and any week can be turnoff week). Have them keep track of their program-watching. Chart when, how long, and why they watched the shows they watched. The WHY category is important. We want students to make wise decisions using other resources, and television can be added to that list. Have the students list briefly why they want to watch that particular show. This idea will be new to them. Model this during your classroom television viewing.

After the week of “practice television watching” has occurred, then have your kids bring in their charts and discuss commonalities and differences between their viewing. This can be done with small groups; then get the whole group together to summarize.

For the actual TV Turnoff the week, have the kids look back at their practice charts. Have them set a goal of how much television they will watch. Have them look through their

viewing selections and pick what they really want to watch. Have them try to balance it with informative and entertainment programming. Also, have them cut down their total watching by 50%.

Resources

Make one of their goals to watch a program that has a companion website. These websites have further information and activities and can generate a lot of interest. Using these companion websites helps students “preview” or



Graphic source: www.adbusters.org/campaigns/tvturnoff

“postview” their programs. I would suggest the following as good jumping-off places for quality websites dealing with children’s programming:

Website of The Discovery Channel dsc.discovery.com

Website for teachers at Public Broadcasting
www.pbs.org/teachersource

Cable in the Classroom www.ciconline.com

50% is not a “total turnoff” (pardon the pun), but it lets kids make some decisions based on hard data. Isn’t that what we want them to do: to be questioning, evaluative learners? I think by giving your kids some framework for turning off—and on—the television, their viewing of TV will be more mindful and productive. You may contact me for more information at kelly_bryant@jacksonesd.k12.or.us and by phone at 541.772.2751 or 800.636.7453.

The Language of Video—part 2: capturing and editing

By Joel Brain

In our last issue we talked about using video in the classroom. We recognized it as a powerful communication medium and that it has its own special language. I suggested that learning that language is best done within the process of creating a video. And we recognized an obvious parallel between the writing process and the video process.

In this installment we look at some ideas for capturing and editing video with students. I'm making the assumption that you have a computer that is able to capture and edit video. Not sure?



Edit Decision List

You've done the planning, and your students have been shooting video. Now it's time to bring it into the computer. Before you connect any cables, it's a good idea to decide which chunks of video you want to capture. To do this, connect your camera to a TV and have your students watch all the video they've shot. While watching they decide which takes are keepers. Label these and write down the start and stop (In and Out) numbers for each. (Refer to the time code or counter numbers on the camera.) You'll end up with an Edit Decision List (EDL.) Since everyone has an opinion, everyone on the project team should be involved in this process. And since some people have very strong opinions, having a teacher-type around to moderate the discussion is probably a good idea.

If students don't have a lot of garbage footage, and if the computer has plenty of hard drive space (215 MB per minute of video), you can forget the EDL and just capture everything you've got. This is quicker and it allows the students to postpone the decisions until they're editing the video on the computer. It's easier to compare takes on the computer since students won't need to continually rewind tape on the camera. This works well with small projects and especially if they did a good job during the planning phase. Hook up an external monitor so the team doesn't miss out on some important discussion.

Capturing Video

You won't need the whole group for this. I recommend selecting a couple of students to work together. The capturing is actually fairly easy. The tape is in a camera set in VTR mode. Connect the cable(s) from the camera to the computer and launch the video editing software. Most software allows you to operate the camera through the computer. Often this interface looks much like the controls on your VCR. Working from the EDL, students grab the video they need. They should capture a couple of seconds of tape before and after the desired clip so they'll have enough room to accommodate any transitions they'll want to use. That's it for capture!

Editing

First off let's explore a potential problem and look for solutions: five or six students have lots invested in this project, yet editing happens on a single computer. Kinda hard to keep everyone on task, right?

Help teams select two students to do the editing. Try to get one with good computer skills and one that has a good overview of the project. These editors will need to talk with the group about what they are going to do, go and do it, then come back to the group and show what they've done, getting feedback and more direction.

When I've done this in the past, I've found that when the two editors come back to the group they never leave again. Others in the group start making suggestions and the editors just make the changes with the group watching. Feedback is immediate, they all had a part in the editing decisions, and they are all focused on the project.

Another strategy I've used is to copy the captured video to more than one computer. This allows more kids to edit in



smaller groups and it's easier for quieter kids to get their ideas used. It's always interesting to see the variations that occur as different students edit differently.

The editing process is somewhat involved but it includes the following:

- students move the captured clips to a timeline and arrange them in the desired sequence. Still images can be brought in at this stage.
- students crop each clip as needed.

Transitions

After this it's time to apply transitions. A word here: 90% of the transitions used in movies and television are direct cuts. There's a reason for this: fancy spins and peels may look cool but usually detract from the message. You'll want to mention this, but you probably won't be able to convince your students. When they watch later they may come to understand the wisdom in transition moderation. (Come to think of it, it could be many years before they recognize the wisdom in any kind of moderation.) Fades and dissolves are used to show a change in time or place. The question to ponder: does your transition help get the message across?

Titles and Credits

Students usually want to add titles and credits. They should use a font that's easy to read and make it large. This is especially important if they are intending to publish this to the web. Students will have the option to make these titles appear over the video as it runs or to place the title over a solid color background. Either will work—just make sure the text color contrasts well with the background.

The Soundtrack

Audio is very powerful. Don't believe it? Turn off the sound

on the next movie you pop into your VCR. We tend to think of video as a visual medium, but an audience that will put up with some visual errors often has little tolerance for poor quality sound. Yes, audio can be edited but it's not always easy. That's why it's best to get it right during shooting. A variety of techniques can be used to separate audio tracks from the video. And shareware like *SndSampler* (\$30) (www.provide.net/~moorepower/ahg/sndsampler) allows you to edit audio tracks. It's a great tool to use when the recorded audio is too quiet.

Students can add audio later, too. Recording directly to the computer is an easy way to create voiceovers. And don't forget background music—it's a powerful emotional component. Stick an instrumental (lyrics take away from the content—remember, it's all about communication) compact disc in the CD drive and snag some. For copyright considerations, check out (www.peachboys.com/hme/copyright/copyright.htm) Better yet, don't even worry about copyright by having students create some original music as the background music.

You may be wondering why I haven't given step-by-step instructions for editing video. That's because each editing program is a little bit different. Besides, most programs have their own tutorials and there are a variety of web resources available.

What's it Gonna Take?

Whether you're trying to capture analog or digital, you'll need a computer with plenty of processor speed, lots of memory, and a lot of HD space. Depending on the editing software you buy, you'll need a system that looks something like this:

A computer that runs at 300MHz or better WITH 128MB of RAM and as much hard drive space as you can get (a 5-minute movie uses over a gig of HD space so you decide

“Come to think of it, it could be many years before they recognize the wisdom in any kind of moderation.”

how much you need). In addition, your computer must have some kind of capture card. This card gives you the ability to bring video into your computer. An analog camera requires an “analog” capture card (the computer will have S-Video or RCA inputs) A digital video camera requires a “digital” video capture card. (The computer will have a USB or firewire port.) One of these cards came installed with your computer if you purchased a Mac in the last year or so. If it's a PC, you may need to buy a card (you can buy one for less

See Video on next page

Video (continued)

than \$100 and they usually come bundled with editing software—that brings us to the next item.

Software

Which product? That depends on your system (above), especially on whether you're capturing analog or digital video. To go digital on a PC, check out Pinnacle's Studio DV Version 7 (www.pinnaclesys.com)—a very nice program for around 100 clams).

To go digital on Mac, iMovie2 is a great little product and will set you back \$49, (www.apple.com/imovie) and the good news is you probably have it installed on your computer if you purchased your Mac in the last year or so.

Cameras (camcorders) are another consideration. If you're looking for a digital video camera, you'll need to decide between mini-DV and Sony's D8 format. Mini-DV seems to be the standard but D8 tapes are cheaper and most of the cameras in this format allow you to play tapes from older



8mm or Hi-8 cameras. This may be a good idea for schools as there are a lot of those older cameras out there on closet shelves in media centers and parents' homes. Models change all the time, but Sony, Canon, JVC, and Panasonic have good reputations. Prices start at around \$500. Check out www.cnet.com for reviews and prices then go to your local camera store. They're usually competitive; they'll be there if you have trouble and you'll get some human contact.

Resources

For *Studio DV* check out: howto.lycos.com/lycos/series/1,,5+24+26055+24783,00.html

For *iMovie2* look at: desktopvideo.about.com/cs/imovie

A nice little tutorial that walks through the entire process of creating a video can be found at: www.sotherden.com/video101

A nice graphic overview of the process is found here: www.apple.com/education/dv/tips

Curious how you and your students will save this movie—to your DV camera, VHS tape, CD-ROM, DVD, the web? We still need to explore the range of possibilities for publishing video and I'll address those issues in *The Language of Video (Part 3)* in the fall issue of *TechNotes*.

What's so different?

21st Century Skills

By Cheryl Lemke (© NCREL, used with permission)

In this digital age, intellectual capital drives progress, so political, social, and economic advances in the 21st century will be possible only if the intellectual potential of America's youth is well developed. To accomplish this, we must meet the changing learning needs of all students. The enGauge 21st Century Skills were developed through a process that included literature reviews, research on emerging characteristics of the Net-Generation, a review of current reports on workforce trends from business and industry, analysis of nationally recognized skill sets, input from educators, data from educator surveys, and reactions from constituent groups.

An extensive review of the literature on 21st century skills suggests that educational decision makers must acknowledge that the academics of yesterday are not sufficient for today. To adequately prepare, students must learn content within the context of 21st century skills.

This list identifies the skills 21st century students need to thrive. It is intended to serve as a bridge across public, business, and education sectors through common definitions and contexts.

Digital Age Literacy—Today's Basics

- **Basic, Scientific, and Technological Literacies**
As society changes, the skills that citizens need to negotiate the complexities of life also change. In the early 1900s, a person who had acquired simple reading, writing, and calculating skills was considered literate. In recent years, we've come to expect that all students will be able to read critically, write persuasively, think and reason logically, and solve complex problems.
- **Visual and Information Literacy**
The graphic user interface of the World Wide Web, advances such as digital cameras, graphics packages, and streaming video, and the convergence of voice, video,

and data into a common digital format have increased the use of visual imagery dramatically. Students need good visualization skills to be able to decipher, interpret, detect patterns, and communicate using this imagery. In addition, they need to be able to access information efficiently, evaluate it critically, and use it accurately.

- **Cultural Literacy and Global Awareness**

The world is rapidly becoming wired, and the resulting globalization of commerce has increased the need for cultural literacy. In such a global economy, the ability to know, understand, and appreciate other cultural formations—including those established by technological society, i.e. virtual realities—is key to a competitive edge.

Inventive Thinking-Intellectual Capital

- **Adaptability/Managing Complexity**

The interconnectedness of today's world brings with it unprecedented complexity. Interaction in such an environment requires individuals able to plan, design and manage in new ways. Such individuals can handle contingencies, anticipate changes, and understand interdependencies among systems.

- **Curiosity, Creativity and Risk-Taking**

Researchers now understand how the very structure of the brain can be changed through intellectual pursuits—"there is a corresponding relationship between the amount of experience in a complex environment and the amount of structural change in the brain—in other words, learning organizes and reorganizes the brain." Curiosity fuels lifelong learning just as it contributes to quality of life and to the intellectual capital of a country. Equally important is risk taking—without which there would be few quantum leaps in discoveries, inventions, and learning.

- **Higher Order Thinking and Sound Reasoning**

For decades, research has called for higher order thinking and sound reasoning in P-12 curricula. Thinking skills have been defined as the ability to think creatively, make decisions, solve problems, and see things in the mind's eye, whereas sound reasoning enables students to plan, design, execute, and evaluate solutions. These processes are often carried out more effectively using technology.

Interactive Communication-Social and Personal Skills

- **Teaming and Collaboration**

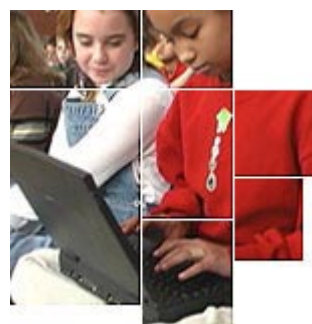
The rapid pace of today's society has caused a downward shift in the level of decision-making. At the same time, the complexity of the 21st century requires a high degree of specialization by decision-makers—hence the need for the teaming of specialists to accomplish tasks efficiently, effectively and in a timely manner. Information technology such as email, faxes, voice mail, audio and videoconferencing, chat rooms, shared documents, and virtual workspaces, can facilitate and enhance collaboration.

- **Personal and Social Responsibility**

Emerging technologies often present ethical dilemmas. As complexity increases, society needs new values to guide the application of science and technology and to manage the use of powerful new tools at the personal, community, and governmental levels. It is important for students to grasp this responsibility and contribute as informed citizens.

- **Interactive Communication**

In this digital age, it is imperative that students understand how to communicate using technology. This includes asynchronous and synchronous communication, such as person-to-person email interactions, listservs, group interactions in virtual learning spaces, chat rooms, MOOs, MUDs, interactive videoconferencing, phone/audio interactions, and interactions through simulations



and models. These technologies add new dimensions to communication that must be mastered, including etiquette unique to particular environments, scheduling over time zones, and cultural/language issues.

Quality, State-of-the-Art Results

- **Prioritizing, Planning, and Managing for Results**

High levels of complexity require careful planning, managing, and anticipating contingencies. This means more than simply concentrating on reaching the main goals of a project or keeping an eye on project outcomes; it requires the flexibility, creativity, and the ability to anticipate unexpected outcomes as well.

- **Effective Use of Real-World Tools**

Doug Henton describes three types of knowledge important to today's economy: Know-what, Know-how, and Know-who. Choosing appropriate tools for a task and applying them to real-world situations in ways that add significant value results in increased collaboration, promotion of creativity, and the development of useful, high quality products.

High Quality Results with Real-World Application

Researchers are finding learning benefits for students who build authentic products with tools—whether they be sand castles, computer programs, documents, graphs, LEGO constructions, or musical compositions. Such experiences provide students with deep insights into whatever domain of knowledge and whatever tools they use.

Hanby Book Buddies is an adaptation of the Southern Oregon Write Site Literature discussion circles debut online at Hanby MS

By Julie Rossi and Margaret Dials

First of all, we wouldn't have been able to create the Hanby Book Buddies project without the help of Nick Viani at the ESD. [Aw, shucks—Ed.] He took our ideas and created an online bulletin board for students to discuss books. We wanted to offer our TAG students a unique experience that combined the reading of challenging books with the technology of online writing. Students were already engaged in journal-writing about books in their reading workshops, and we wanted to take that one step further.

First we held a meeting with all of our TAG students (about twenty 7th and 8th graders) and presented book talks on the books nominated for the 2002 Young Reader's Choice Awards. We had two copies of each book for students to check out and asked them to give us a secret code and their first three choices of books they would like to read. We then assigned books and passed them out in envelopes so nobody would know what anyone else was reading.

They were required to answer one question a week from a list of questions we posted on the web site from the

beginning, middle, or end of their books. They posted their answers on the beginning, middle, or ending discussion boards and included the comprehension question in their answer. Each student had a buddy who was reading the same book. Students were also required to respond to their buddies' answers at least once a week. The idea was to create a dialogue between the two students about the book they were both reading.

"I can't believe the end!!! Is the father going to kill him or not? But if he was at least he won't have to suffer. Just imagine what it would be like, to not be able to talk to anybody or have any way of communicating with others. I would go crazy! The author makes it seem so real, and that nothing good can happen. I wonder if there are people like this...."

—a recent comment

to encourage students who have moved on to reading other books to return to discussion boards of books they have already read and respond or post questions for students who are currently reading that book. Our goal is to create a continuous discussion of the books.

Visit the Hanby Book Buddy Project

Browse to www.jacksonesd.k12.or.us:591/it/cpost/sows/hbb/index.html. Also check out www.literaturecircles.com and facstaff.seattleu.edu/kschlnoe/litcircles/use.html for ideas. You're invited to design your own online discussion group. Contact Nick Viani at nick_viani@jacksonesd.k12.or.us and he'll walk you through it.

"Book Buddies is a good way to get people thinking about what they read....other people respond to what you write about and they have good questions that cause you to look at the story from a different view." —Tiffani

"I...enjoy being able to get on the Internet to "chat" with the person—it's almost like checking e-mail. I think that our school should expand the program to everyone, so that they can all do it instead of writing in journals." —Marissa

"Doing this project is fun! I like to talk to someone else about my book and get his or her opinions." —Kelsey

Students were enthusiastic about their books, and many were enthusiastic about writing on the web site. We were surprised by the overall response to the program. Only a few students (about four) continued to use the web site after finishing their first book, although they actively kept checking out the books. Many admitted that they enjoyed reading what others had said, but they just didn't get around to responding themselves. We had thought that the hidden identity of book buddies would be fun, but the kids were more interested in the books than in who was reading with them.

We have a special section in the library for the Hanby Book Buddy Books. Any student can check them out with the understanding that they will respond online. We are going

More than just a source for local weather conditions

WeatherNet debuts

By Tom Glover

Jackson ESD's Professional-Technical Education and Instructional Technology Departments are debuting WeatherNet this month, a consortium of 15 schools and a supporting web site. Each school has a RainWise weather station, of these 15 sites seven are online. At the online sites weather data is downloaded every 15 minutes to the ESD, where it is available on the WeatherNet website. But, the WeatherNet website and project is much more than just a source for current local weather conditions.

Included are a middle and high school science curriculum and powerful resources, providing topographic and precipitation maps, topographic cross sections of our three-county service area, annotated weather links and a resource where for obtaining regional weather data for the period 1961 to 1990.

WeatherNet Curriculum

The curriculum is divided into four lessons which address several Oregon State Benchmarks.

- Lesson 1 students track storms using the data supplied by WeatherNet's online weather stations. In this lesson they document the rain shadow effect, that is, changes in precipitation as storms move west to east across the Illinois Valley, the Rogue River Valley, and into the Klamath Basin.
- Lesson 2 students explore what causes a rain shadow—the adiabatic rate—in a mini-webquest, then do calculations on a simulation to apply what they have learned in their research.
- Lesson 3, *Let it Snow, Let it Snow* asks the question: Where does it snow more, Portland or Medford? To answer this question students do three mini-lessons based on webquests. Students first study different types of precipitation and how they are formed, and then they analyze snowfall data for Portland and Medford. The final mini-lesson builds on the first two and involves comparing and contrasting differences in the mechanisms producing Medford snowfall and Portland snowfall (the Gorge Effect). The conclusion to *Let it Snow, Let it Snow* asks students to compare snowfall and climate data over a period of 40 years in making an assessment about whether or not there has been a change in the climate of Western Oregon. (Note: A complete set of rubrics is included for all parts of Lesson 3.)
- In Lesson 4 students expand their view from Western Oregon to the world as they explore the question of Global Warming.

WeatherNet Resources

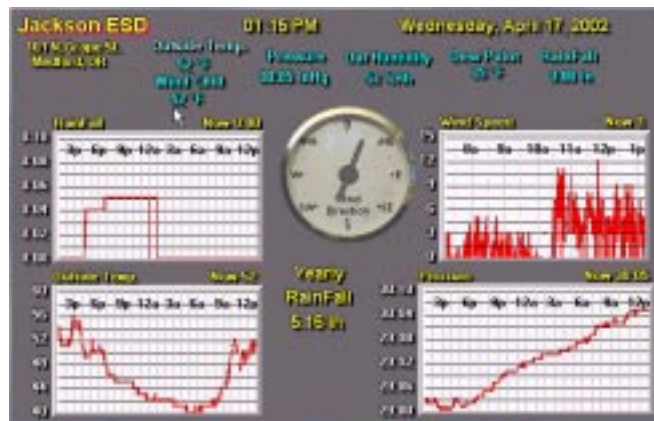
WeatherNet provides regional curriculum resources on

several levels. The incorporated lessons focus inquiry regionally, first Southwestern Oregon, then Western Oregon, and students compare and contrast weather with climate. Each lesson is a stand-alone lesson that can be used as part of weather unit for a classroom or as individual lessons for a specific student. Since the data provided by WeatherNet is real-time dynamic data, it can be incorporated into science inquiry lessons independent of the lessons provided.

Meet (or exceed) Oregon Benchmarks

As for Oregon Benchmarks the incorporated lessons address several 5th, 8th, and 10th grade benchmarks including using conceptual models to make predictions, describing weather in measurable quantities, interpreting data over a period of time, comparing weather in the student's area with weather in other areas and climates, the difference between weather and climate, defining factors that cause or affect weather patterns, identifying examples of condensation in the student's environment, analyzing the effects of human activity on the amount of carbon dioxide in the atmosphere and global climate, and describing the effect of gases on the amount of solar energy captured by the Earth system.

It is our hope that WeatherNet will provide a valuable resource for students and teachers in both lessons and raw data. The website for WeatherNet is www.jacksonesd.k12.or.us/weather. The site is undergoing constant revision to meet your instructional needs, and I would appreciate your comments, suggestions and corrections. Contact me at thomas_glover@jacksonesd.k12.or.us. Enjoy the weather!



This is sample of the weather data available every 15 minutes on WeatherNet for the seven online WeatherNet sites: Illinois Valley High School, North Valley High School, Rogue River High School, Medford ESD, Phoenix High School, Ashland Middle School Science Institute and Mazama High School.

Giving students a voice

Sound practices II

By Larry Francis

Explanation must be understood as a particular form of insight.

—Michael Polanyi, “Logic and Psychology”

Anyone trying to learn a language knows it’s so hard and so important to get speech to stand still so you can remember meaningful chunks. In olden times, music and poetry helped people remember stories, but the big breakthrough for capturing and recalling language was literacy, the Writing/Reading technology. Before that, language meant oral language. Nowadays, of course, a big part of schooling is the task of installing, coordinating, fine-tuning, and exercising that literacy technology in our students’ eyes, ears, mouths, hearts, and minds, to name a few organs.

Now we’ve got multiple literacies—and a much newer technology for getting speech to hold still and be easily and universally accessible: digital audio recording and playback. Digital audio captures idiosyncrasy, voice, rhythm, and mood way better than text does, but it lacks text’s flexible generalizability. With software that comes built-in with Windows and is downloadable freeware for Macs, plus cheap mics that generally come built-in with Macs and cost only about \$6 for PCs, there’s no reason why we shouldn’t take advantage of both technologies in our teaching—the old text one and the new digital one and use them to enhance each other.

Capturing voices is easy on both Macs or Windows, but you just gotta have:

- (1) a microphone
- (2) software for capturing audio
- (3) a sound card to hear audio (if its not installed on your PC; Macs always have ‘em)

Here at Jackson ESD, the microphones we use on our Macs came built-in on the laptops and were included in the same box as the towers. On the Windows side, we had to buy them, but they were only about \$6 each. (Contact Gary Wagoner in Repair (541.776.8570 or 800.636.7454). The software, **SoundRecorder**, is a free download on the Mac side and built-in to the Windows operating system.

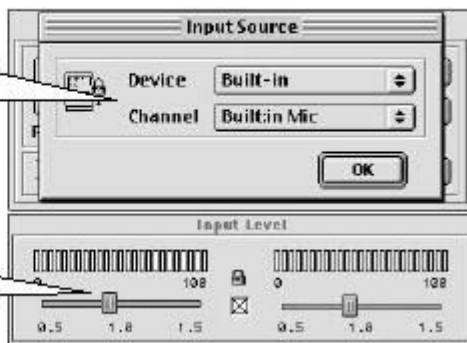


To download SoundRecorder, go to www.download.com and search for SoundRecorder (no space) or go to www.mp3mac.co.uk/Downloads/SoundRecorder.sit. Then just double-click on the SoundRecorder icon to open it. You have to configure it. There’s a nice how-to for SoundRecorder at www.emsb.qc.ca/recit/aamemo/sr_mac.pdf. The key things to remember if things don’t work right are

1. If the recording isn’t happening, check the source to make sure it’s looking to the correct mic for input (usually built-in or external), and

If you’re talking into the mic and nothing’s registering, check to make sure the mic’s plugged into the right hole and that the input source device and channel are right.

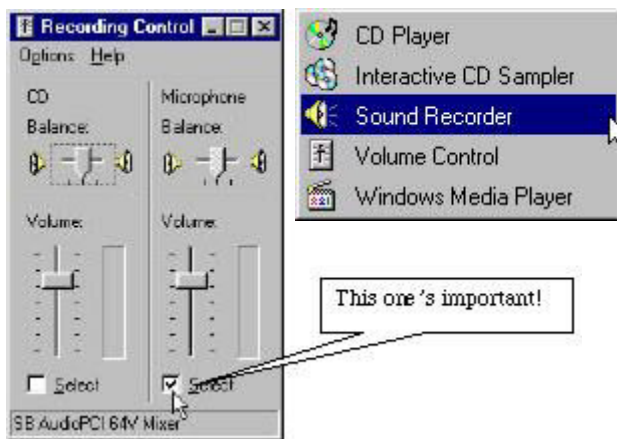
When you play back your sound, if it’s too soft, slide the input level thingy to the right and try recording and playing back again.



2. If the sound’s not loud enough, slide the input level to the right a bit. I like it about halfway between zero and one.

On the Windows side, there’s nothing to download since it’s built (buried, actually) into the Windows OS. To access it, go to Start > Programs > Accessories > Entertainment > SoundRecorder. You may need to configure the volume properties for the microphone and make sure the

mic is not muted. The normal Volume Control properties are for Playback, not Recording. To get to Recording Control, you need to go Volume Control > Options > Properties > select Adjust Volume for Recording (not Playback). Then when you get



Left: Windows users have a built-in program for recording voices called SoundRecorder—and you have to dig to find it. To access it, go to Start > Programs > Accessories > Entertainment > SoundRecorder.

there, select Microphone Balance, not CD Balance.

Inserting Sounds

Once you've captured your sound, you can put sounds in lots of documents. Here is how to do it in a few major applications for Mac or Windows:

AppleWorks or ClarisWorks—you'll be inserting a QuickTime movie (File > Insert)

Word—you're inserting a Movie (Insert > Movie)

Kidspiration—lets you *record* your own sound from within the application (Sound > Record) but you can't insert a sound captured somewhere else.

PowerPoint—gives you a lot of options: you can insert a sound you've captured (Insert > Movies and Sounds > Sound from File) or pick from a gallery (Insert > Movies and Sounds > Sound from Gallery) or record your own (Insert > Movies and Sounds > Record Sound).

KidPix—like Kidspiration, lets you record but not import. Go to Goodies > Record a Sound. There is a Goodies > Pick a Movie, but I couldn't get it to work with a short QuickTime audio or a short .wav audio.

Attach your sound file to an email—Sound files don't take up much space, so you can attach 'em to emails without choking somebody's mail server or triggering a loooooong download on their dialup connection. As for format, .wav is a good choice, since Windows is happy with .wav and QuickTime can read .wav files just fine. Most Macs have QuickTime. You can download it for Mac or Windows from www.apple.com.

HTML—a quick page I slapped together with embedded sound is at www.jacksonsd.k12.or.us/it/staff/lf/pollitos.

But what sound to insert? It depends, of course, on so many things—like the presenter, her or his purpose, passion, and audience, to name a few. If you're thinking of a PowerPoint presentation or AppleWorks slideshow, don't miss Jamie McKenzie's great article, "Scoring Power Points," available online at www.fno.org/sept00/powerpoints.html. Here are a few more humble ideas:

1. Digital sub tub: make a digital folder for your substitute with your classroom procedures and a short recorded message from you calculated to frighten your impressionable students into impeccable behavior.
2. Story starters: use a short sound clip to get students in the mood to write about a dark and stormy night, their most unfavorable food, their happiest surprise, or whatever
3. How-to documents: break down a task (math, language arts, classroom or school procedures—any sequenced activity is fair game here) into steps, write down the steps and have a student sound clip explain each one.
4. Songs: make a singing songsheet where you have a sound clip right next to the lyrics.
5. Grab a sound file off the web and insert in a document to be read or transcribed or responded to. I went www.dailywav.com and snagged Margaret Hamilton's "I'll get you my pretty and your little dog, too!"

Meaning has to be personal or it's not even there, and it has to be universal or no one else will care. (Let's assume the universality of most of what we're trying to teach and focus on the personal part of meaning.) We know from Bloom's Taxonomy—and common sense—that a curricular bit has found a home in students' heads if the students can put it into their own words. This means to me that any student presentation—and probably any teacher presentation—needs a sound track that reads, interprets, explains, elaborates, something, that *personalizes* the slideshow, essay, web page, or whatever.

Text-to-Speech & Speech-to-Text

Besides amplifying, elaborating, and personalizing the tone and meaning of a chunk of text, digital audio is a great tool for students working to make the connection between oral and written language. Reading could be crudely defined as getting from text to speech. Writing could be likewise defined as getting from speech to text. As I explained last time in "Hearing Voices," students struggling with Reading (big R) can start with the text, practice reading it with robot tutors, then trium-

See Sound on next page

Sound (continued)

phantly record their own performance. They could, however, go the other way around, skipping the robots and just telling their story, capturing it with SoundRecorder. Once they've gotten their story to hold still, students can review it for fluency, flair, coherence, or whatever. Then it could be re-recorded and re-reviewed until it met the students' standards (or yours). When students have their stories sounding just right, the oral output—"reading"—is taken care of, freeing them to work on encoding talk into print—that is, writing. Classmates, friendly adults, or cross-age tutors can help, of course, with the transcription. Robots, once again, provide a conventional check: by comparing the robot's text-to-speech reading of story with the student's own digitally recorded telling, students can debug their writing chops and tune up their conventions.

Full Circle—Hammering Home

The whole reading/writing game is about making meaning and communicating it conventionally. On the receiving end, the listener has to remake something like the originally intended meaning, or there really wasn't any communication at all. But you knew all that. Multiple literacies, of course, give us the chance to make our meanings more and merrier. But you knew that too. My hope is that by now we've come full circle with Sound Practices I and II, since last time was about getting robot voices out of your computer and this time we took a look at getting student voices in.

For Further On or In

If you're interested in Polanyi's philosophy, see Michael Polanyi's *Personal Knowledge*, or maybe better, *The Tacit Dimension*. Online, Stefania Ruzsits Jha has a nice bit in Chapter 5 of her PhD thesis, "Michael Polanyi's Integrative Philosophy," www.kfki.hu/chemonet/polanyi/9602/mp1.html or you can go to the Philosophy Research base, www.erraticimpact.com/~20thcentury/html/polanyi_michael.htm

For a couple of online articles on making meaning, see John Seely Brown, "Stolen Knowledge" www.parc.xerox.com/ops/members/brown/papers/stolenknow.html and Ellen Langer, "On the Power of Mindful Learning" www.omnimag.com/archives/chats/bm120397.html.

For a couple of articles on "power pointlessness," besides Jamie McKenzie's classic "Scoring Power Points" www.fno.org/sept00/powerpoints.html, see Joyce Kasman, "PowerPoint effective, but often misused" joycevalenza.com/powerpart.html.

For other resources, like how to downsize bulky sound files or bulky graphics files so they don't take too long for people with dial-up connections to load and for the most current version of the forgoing, see www.jacksonesd.k12.or.us/it/staff/lf/soundpractices.

Summer inservice opportunities

The ESD's Curriculum Department is offering a variety of summer workshops. Please share the following information with teachers and educational assistants at your school.

Descriptions and registration are available on the Jackson ESD web site (www.jacksonesd.k12.or.us). Click on Staff Development Opportunities.

Early Reading and Federal Legislation—Ric Latour
8/19, 8:30-3:30, McLoughlin MS (Medford), Gr K-6, Free

Differentiation by Design—Julie York
8/19-20, 8:30-3:30, McLoughlin MS (Medford), Gr K-12, Free

Super Seven Reading Workshop—MaryBeth Munroe
8/22, 8:30-3:30, McLoughlin MS (Medford), Gr 2-8, Free

Storytelling, StoryFest and Speaking Benchmarks—Barbara Griffin
8/23, 8:30-11:30, McLoughlin MS (Medford), Gr K-8, Free

Teaching with Two-Way; A Videoconferencing Adventure—Sheryl Lipski
8/20-21, 8:30-4:00, Phoenix HS, Free

MonArt Institute: How to Use Drawing in an Integrated Curriculum
Carol Kolnes—6/25-26, 8:30-3:30, Phoenix HS, Gr K-6, \$100

Make and Take It! Writing and Speaking Toward the Benchmarks
Michael Lenhart—7/16-18, 8:30-4:00, Grants Pass HS, Gr 1-6, \$225

Crater Lake National Park as an Outdoor Classroom—John Salinas
7/31-8/2, Crater Lake National Park, Gr 1-6, \$195

Shared Inquiry: Junior Great Books
8/7-8, 8:30-3:30, Jackson ESD, Gr 2-10, \$149

Every Day Counts Calendar Math—Jan Gillespie
8/12-13, 8:30-3:30, Parkside Elementary (Grants Pass), Gr K-5, \$150

Activities Integrating Math & Science (AIMS)—Cris Richardson
8/12-16, 8:00-3:00, Highland Elementary (Grants Pass), Gr K-6, \$185

Handbuilding with Clay: Projects for the Classroom—Susan Rodin
8/12, 8:30-3:30, Phoenix High School, Gr K-8, \$30
8/13, 8:30-3:30, Ponderosa Jr. High (Klamath Falls), Gr K-8, \$30

Classroom Management with Standards-Based Demands—Sheri Smith
8/13, 8:30-3:30, Howard Elementary (Medford), Gr K-6, \$35

Science Inquiry Now!—Sean Nolan and Justin Adams
8/14-16, 8:30-3:30, Science Center (Ashland), Gr K-6, \$225

Language Arts Writing Collaborative—Sheri Smith
8/15, 8:30-3:30, Howard Elementary (Medford), Gr K-6, \$35

Advanced MonArt: Using Drawing in an Integrated Curriculum
Carol Kolnes—8/20-21, 8:30-3:30, Grants Pass HS, Gr K-6, \$110

Sea Camp for Educators—Sean Nolan and Allyson McCauley
8/20 (8 AM) - 8/23 (2 PM), OIMB Charleston, Oregon, Gr 4-12, \$325

University credit will be available. Contact Pam Marshall at 776.6771 or pam_marshall@jacksonesd.k12.or.us for information on classes, college credit, and registration. PDU's (Professional Development Units) will be provided at the completion of each course in which you participate.

PDA: Personal Digital Assistant The World in the Palm of Your Hand

By Tom Glover

You see them cropping up everywhere these days, the PDA, or Personal Digital Assistant. These are those little, fit-in-the-palm-of-your-hand personal computers. It is interesting to note that these handheld computers have nearly the computing power of the original desktop Macintosh. People use them for keeping their calendars, as calculators, for taking notes, as databases or spreadsheets, plus specialized applications just like that computer that sits on your desk.



Here in Instructional Technology we are exploring the idea of using PDAs in the classroom for curricular use. Yes, I know one of the first reactions is: but, they have such small screens, can they really

be used for serious classroom application? The answer is YES. Remember that to those of us from a certain generation who have always used large screens, the PDA “human interface” may seem small, but to a generation who have grown up with “GameBoys” and cell phones the PDA interface is not small at all. Plus, PDAs can be “HotSynced” (that is, hot wired) to your desktop computer for transferring files between your PDA and your desktop computer.

Math applications

I have seen some very exciting classroom uses for PDAs. ImagiWorks makes great graphing software for teaching and exploring math. But, why PDAs? Why not regular computers to teach math? The answer lies in the low cost of PDAs, their portability and their “individuality.” By this I mean that they are used by each student individually. Imagine a classroom where every student has his or her own computer, a hand-held computer, a classroom with computers but no wires.

Science applications

In addition to math, they can be used with probeware. Remember, the ESD has a set of Vernier temperature probes for checkout. Using a portable foldout keyboard, students can use them for writing projects, taking notes, etc. The possibilities are limited by one’s imagination only. I recently downloaded an astronomy program off the internet for my PDA that is more powerful than the astronomy software I used in the classroom just four years ago—and it is portable. There is a great deal of free software for PDAs right off the

internet. Check out websites like PalmPilot’s education site (www.palm.com/education) or The Center for highly Interactive Computing in Education (HiCe site at hi-ce.eecs.umich.edu/index.html) So would you like to be part of this world?

PDAs in the Classroom grant

To introduce PDAs to teachers in our region we are starting a two-year project with eight teachers. Each teacher will receive a Palm Pilot of their own on permanent loan. They will also have access to a lab of 25 PDAs for one month during the school year for two years. In return, teachers will learn to use the PDA for their own administrative use. They will also create written lessons they can share with their colleagues.

Write a short description of why you should receive the PDA. Include the grade level you teach, your school, just how you think PDAs could help you and your students (that is: What would you like to do with your PDAs), and a comment about whether or not you presently incorporate technology in your curriculum. Send the request to Thomas Glover by email at thomas_glover@jacksonesd.k12.or.us by June 1. We will notify recipients before the end of the school year. We will meet either during August or early September.



Any concerns you may have about using the PDA for text entry are alleviated with the inexpensive, portable, collapsible keyboard accessory. Plug it into the PDA and you’ve got a fully-functioning word processor that’s completely interactive with your desktop computer and still fits into your pocket. And you thought the functionality of AlphaSmarts was cool!

SOOS thrives

Spring is in the air and Southern Oregon Online students are racing toward the electronic finish line with just a little less than one month before final grades are due. More than 100 high school students from Southern Oregon are taking over 150 credit courses from Southern Oregon Online School in math, science, social studies and English. A new course added this year is Health/Wellness. It has proven to be very popular with almost 30 students completing credit.



SOOS continues to be a flexible alternative for high school students who are juggling work schedules, class schedules, sports, and a variety of life situations that make getting graduation course requirements taken care of nearly impossible in a conventional school day. SOOS students may work at school or from home or the public library or anywhere they have web access—anytime of the week.

SOOS not only provides flexibility to students but to schools as well. In Oregon's current budget tightening, schools can use online courses to expand their offerings and meet the needs of their student populations. Instead of overloading a face-to-face class, additional sections can be filled with online students. Courses that don't have enough enrollments to provide a full-time teacher could still be made available through SOOS. The current SOOS course cost to schools is less than the cost of a face-to-face course.

Web-based teaching and learning is expanding around the state of Oregon. There are currently web schools sponsored by Salem-Keizer School District, Linn-Benton ESD, Northwest ESD, and Corvallis SD in addition to SOOS. The Oregon Online Leaders, made up of representatives from existing online schools, the Oregon Department of Education, OPEN, and other interested members have met to help build the capacity for online education around the state. In the planning stage is a web site for students listing all available online courses around Oregon and links to online curriculum available to all teachers.

In late June, Jackson ESD will be hosting a weeklong summer institute for teachers from around the state. Participants will explore effective teaching strategies for distance learning, learn to use powerful online tools and resources, and create online curriculum. (See the article "Instructional Technology Summer Inservice" elsewhere in this issue.)

Tips & Tricks

Recording sounds in Kidspiration

In Kidspiration, you and your students can record sounds or words and attach them to symbols to expand and reinforce learning. The Record command is only available when Record Sounds is turned on in Application Options (click Application Options on the Teacher menu to explore this and other options). Your computer needs a microphone (about \$6 from the ESD).

To record sounds or words and attach them to a symbol or idea:

- 1 Select the symbol or idea.
- 2 On the Sound menu, click Record.
- 3 In the recording controls box, click Record to begin recording.
- 4 Generate the sound that you want to record.
- 5 When you finish recording, click Save to save the recording and attach it to the selected symbol or idea. (The maximum length of a recorded sound is fifteen seconds. You can click Stop at any time to end recording.)

In Picture View, a speaker icon appears in the upper right corner of a symbol when a recorded sound is attached. In Writing View, it appears to the left of an idea.



Try adding sounds to your Kidspiration projects today! Teachers can create symbols with instructions on how to use the activity they've created, using the Record command to provide spoken instructions for their students. Students simply click on

the microphone icon to hear your instructions before they complete the activity.

Note: To remove the recorded sound from a symbol or idea, select the symbol and choose Erase from the Sound menu.

The primary classroom

The writing process with Kidspiration

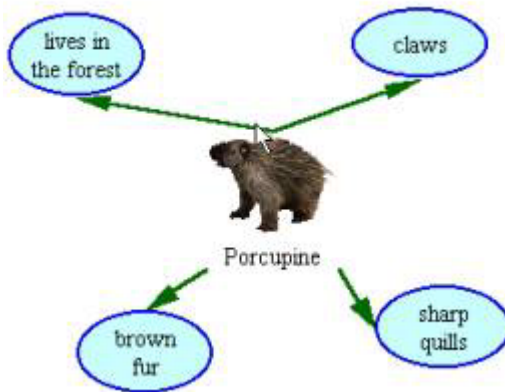


By Tina Mondale

In the primary classroom we spend a lot of instruction time guiding children through the writing process. Beginning with brainstorming and moving to organizing ideas and words into sentences and then paragraphs, teachers have made great use of butcher paper and markers to help kids see the transformation of ideas into written paragraphs.



Kidspiration is idea-mapping software created for primary students that allows them to brainstorm electronically. Ideas can be displayed graphically, moved around on a page, sorted, and organized.



Students can then move their ideas to electronic paper and add words and punctuation to make them sentences. The lesson plan below outlines a two-day beginning writing activity for a primary classroom. Take a look.

Lesson Plan for Kidspiration

Day One: Prewriting (Creating your animal web)

Brainstorm with students in Inspiration the names of animals they have been studying. Save Inspiration brainstorm for student reference.

Directions:

1. "We'll be doing some writing about these animals using a program called Kidspiration."
2. Show the Kidspiration screen and choose an animal as a group to use as a sample.
3. Go through the directions on the handout with the whole

class using one of the animals we've identified. Save for use on day 2

4. "During group time, you will have the opportunity to *create* your own animal web using the name of an animal from our class web. Think about which animal you want to use for your web. You will need to think about 4 things to describe your animal so that you can add details to your web, just like we did as a class."

Work with students in small groups at the computers to create and save their animal webs.

Day Two: From web to writing

Open up the Kidspiration web we created on day one. Remind students how we selected an animal, then think of four things to describe that animal.

Directions:

1. "Today we will turn our animal web into a paragraph about our animal."
2. Use the sample web to show how we can look at our web in another way in the writing view.
3. Have students turn ideas into sentences.
4. Record on the writing view
5. Show how you can move the sentences around.
6. Click back to picture view to show that whatever you change in the writing view shows up in the picture view.
7. Show the print and export option.
8. "During group time, you will have time at the computer to *write* with your own animal web using the web you started on Monday. When you have finished turning your ideas into sentences, be sure to save your work and print a copy to show your teacher."

Work with students in small groups at the computers to create and save their animal writing.

Learn more about Kidspiration and Inspiration at www.inspiration.com. Note: Kidspiration costs \$69 from www.inspiration.com (800.877.4292). 30-day demo CDs are available from Tina here at the ESD. Call and she'll send one to you via the ESD courier or download a free trial version from Inspiration's web site.

Kidspiration activity books are \$19.95 each. An "Exploring Kidspiration" interactive CD is \$24.95. Contact their sales department for volume pricing and academic discounts. Katie Storment (ext. 129) is their Oregon Schools rep. Contact Tina at tina_mondale@jacksonesd.k12.or.us.

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