

NECC 2003 • Seattle, WA • June 28 – July 3, 2003

Reported by Caryn Camp, Union-Endicott Central School District

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SUNDAY EVENING KEYNOTE, 5:45–7 PM

Key Area, Seattle Center

Mae Jemison

Educating All Students to be Stewards of the Earth We Share



Join advocate, inventor, astronaut, and international leader, Dr. Mae Jemison, as she inspires us to prepare students for the challenges of the world's future. After earning her BS in Chemical Engineering from Stanford and her MD from Cornell, she served as a Peace Corps medical officer in West Africa. Later, she joined NASA and, in 1992, became the first African American woman in space. She founded two technology companies and directed the Jemison Institute for Advancing Technology in Developing Countries at Dartmouth. Dr Jemison has received numerous awards and honors, been a host for the Discovery Channel—even appeared on Star Trek. Currently building a new business and involved with several technology, education, and development boards, Jemison also chairs The Earth We Share, a science camp where students from around the world gather to prepare for the challenges of the world's future – and for problem-solving the global dilemmas of today.

Notes from the Address:

“It is a paradox that while time is limited, it has limitless possibilities.”

“It is the choices that we make, that make our time potentially unlimited.”

“Never limit myself by someone else’s limited imagination.”

Just in the last five years there has been...

- Evidence of water on Mars
- Evidence of primordial life on Mars
- 800 million people go hungry every night
- the Columbia space shuttle exploded
- the Pope blessed Viagra
- 9-11
- War in Iraq

West African proverb: “If you wait for tomorrow, tomorrow comes. If you don’t wait for tomorrow, tomorrow comes.”

Solving the problems of the world today:

- “60 – 70% are solved by science and technology”
- “30% are solved by random chance and/or pure luck”

The "heart of science":

- I think →
- I wonder →
- I understand

Technology is "putting science into practical use."

"With understanding, we can develop solutions. We can build educational systems."

"My goal is to build a world today that I want my child to live in tomorrow."

"Technology and Science literacy = learning to think"

Technology is a tool:

- How we decide to take advantage of our resources...
- How to approach the world...
- How to answer the questions...
- How to ask the questions...

"There is an old joke that goes: What is the difference between mechanical engineers and civil engineers?

Mechanical Engineers build weapons. Civil Engineers build targets."

Science and Technology Literacy:

1. Understanding → Have a Voice
2. Making sure that there is a pipeline for specialists

Dr. Jemison's two controversial beliefs:

1. No calculators in class before 9th grade. Learn logarithms by hand. (lots of applause)
2. No computers before 6th grade. "Children need to learn how to think well, how to use imagination. There is no substitute for growing the potato in a cup. Still need wet labs." (no one applauded)

Another joke:

Two brains are for sale. The sign by the male brain says, "\$50." The sign by the female brain says, "50% off." Why is the female brain marked down?

Answer: That's easy. It's been used.

The Department of Education is finally realizing that smaller class size makes a difference. "This should come as no surprise because humans don't have litters so we know small children need individual attention."

“There is nothing more dangerous in this world than sincere ignorance and conscientious stupidity.”

The Earth We Share:

- Age 12 – 16
- Experiential Education
- Consider global dilemmas
- Problem-solving skills
- Be able to think
- “Adolescents have incredible powers of motivation, creativity, and energy. We want to encourage them to use these powers for good not evil!”

Teachers are told to be innovative, but also told to train students to a specific test.

“Children are like flowers. It is the nature of the flower to bloom. The flower will bloom unless we do something to prevent it (deprive it of water, sunlight, etc.).”

“We can put a man on the moon but we can’t improve education - because we haven’t made it a priority.”

Potential Energy → Kinetic Energy

“Ideas are potential energy. Nothing will happen until we put them into action.”

“Our worst fear is that we are powerful beyond measure.”

“As we let our own light shine, we give others permission to do the same.”

NECC's Gone Mobile

From a fully open wireless network to one-hour and three-hour handheld trainings, we encourage you to get on the mobile bandwagon. Download the conference schedule, Exhibit Guide, daily newsletter, evaluation form, ISTE book excerpts, and more to your PalmOS handheld at one of the many Bluefish wireless access points! Access the Web and get e-mail using your own wireless laptop, our e-mail stations, or an iBook loaner. Take a free mini handheld training session in Ballroom 6C or bite off more with a three-hour beginning handheld training* at the Sheraton, brought to you by NCCE. No handheld? You can buy a Palm m130 at Onsite Registration for just \$177.

Palm Solutions Group

400 N. McCarthy Blvd.
Milpitas, CA 95035

Phone: 408.503.7000

Fax: 408.503.7140

E-mail: info@palm.com

URL: <http://www.palm.com/education>



Palm, Inc. is a pioneer in the field of mobile and wireless Internet solutions and a leading provider of handheld computers, according to IDC (2001). Based on the Palm OS® platform, Palm's handheld solutions allow people to carry and access their most critical information wherever they go. Palm™ handhelds address the needs of individuals, enterprises and educational institutions by offering the foundation for thousands of application solutions.

Free Handheld Computer Workshops by Palm Solutions Group:

- Intro (using Zire 71)
- Language Arts and Social Studies (using Zire 71)
- Math and Science (using Zire 71)
- Administration & Management (i.e. Assessment) (using Tungsten C)

Notes:

- The Palm Handheld Computer can do 70 – 80% of what students are asked to do on a Desktop Computer.
- Handheld computers are Affordable, Portable, and Versatile
- With a handheld computer, one can:
 - Add software
 - Add peripheral devices
 - Add connectivity to outside world



- * **Great article** on how and why handhelds are being used in classrooms: "Handhelds Go To Class" Go to: <http://www.glef.org> and search for: "handheld." (If not able to access article, click [here](#).)
- * **Great article** on Sixth Graders using Palm Handheld Computers: "[Kids Gauge Air Quality: Students Use Palms to Measure Pollution](#)"

- Research shows students K-6 are carrying an average of 40 lbs of weight in their backpacks each day. The long-term effects of this are not yet known. Ten textbooks and/or trade books can be loaded onto one SD Card that fits into a Palm Handheld Computer. E-books.
- Emergency Info for students can be kept on the Palm using FileMaker Pro. The built-in camera of the Zire-71 makes it easy to have a photo attached to each student's information. (see page 10 for more info.)
- Grade books i.e. Easy Grade Pro <http://www.orbissoft.com> or Learner Profile 3.0 <http://www.learnerprofile.com> or eTeacher by Media-X (See below) (I have CD-Rom demo for this.)
- Generate behavior record with discipline action (with options to send e-mail to principal and/or parents) rubrics, report cards, IEP's, standards, assignments, and more using e-teacher, e-principal, e-standards, i-notice, IEP-X at <http://www.media-x.com>

NY Talks ←

Note: I have tons of brochures and product information from the exhibitors that support the Palm Operating System.

For example: **Media-X Systems:**

eTeacher™ helps teachers integrate outcomes-based curriculum planning, assessment, and reporting through three modules that work together to provide a powerful, yet flexible software solution.

Features

- * To see a slideshow on eTeacher, either:

1. Go to <http://www.media-x.com/products/eteacher/> and click on eTeacher3 Overview, or
2. Watch it on [PowerPoint](#), or
3. Watch the [PDF Version](#) using Acrobat Reader

- **Plan**
 - Allows teachers to develop or import resource units, rubrics and resources
 - Easy-to-use curriculum planning environment
 - Attach resources, rubrics, teaching and assessment strategies to individual activities
 - Built-in curriculum-based rubric maker
 - Organize your year using the long range planner
 - Build and share an unlimited number of curriculum units, resources, and activities
- **Assess**
 - Assess achievement of individual students
 - Track levels of performance numerically or graphically
 - Record subject specific assessment and learning skills

- * Click here to view a different PowerPoint slideshow on making [rubrics in eTeacher](#).

- View class, student and curriculum performance summary data
- Record marks, levels, anecdotal comments
- Assess using levels and outcomes-based rubrics
- Extensive assessment summaries by class, student, subject and grade using graphs, averages and frequency of performance levels
- New summary features include the Achievement Browser (summary of performance of outcomes covered) and Activity Stats (class performance summary per activity)
- **Report**
 - Produce high quality anecdotal report comments
 - Develop a library of comments for report cards
 - Collect and save exceptional comments for future reference
 - Print professional report cards

ePrincipal™ provides a complete student analysis system for elementary and secondary school principals and administrators.

Features

- Analyze school performance
- Create graphs and charts
- Generate form letters
- Review achievement and credit assignments for IEP or ESL students
- View student averages
- Track student's attendance record
- Track behavior incidents
- Import and compare test results
- Configure honor roll requirements
- Generate and print honor roll certificates

IEP-X™ helps you to quickly build Individual Education Plans for students with special needs.

Features

- Track IPRC information
- Print IEP and IPRC forms for parent/student consultation
- Choose from Ministry expectations or create your own
- Create blank forms for data collection during IEP meetings
- Link to the Ontario Electronic Report Card
- Import student data from the report card

CREATING A POSITIVE SCHOOL CLIMATE

Improve the school climate and ensure no child is left behind by using an integrated handheld-web system to collect and quantify student incidents, behaviors and achievements.



How do you ensure no child is left behind?

Ensure that the school is a safe place for learning. Notice the everyday events, both positive and negative, that affect a child. Report serious incidents immediately. Recognize accomplishments, even minor ones. Collect and use the information to improve the school's climate for all students. iNotice uses the power and simplicity of low cost handhelds and the web to make this possible in elementary, middle or high schools.

- Establish behavior categories and descriptors
- Determine which behaviors to track, analyze and graph
- Define alerts for incident patterns
- Develop and assess your school intervention programs
- Accurately quantify and displays school incident data
- Track date, time, incident, severity and action taken on the spot

Built-in support for mobile observation

iNotice has a built-in PalmOS module to allow school staff to report achievement and behavior incidents anywhere in or out of the school. Reporting can be sent via email to parents and guardians. Teachers and administrators transfer information from their PDA to send data to the iNotice school or district database.



Reporting and analyzing

School staff collaboratively inputs data into the iNotice centralized database. Sort information by gender, age, grade, homeroom and teacher. Assess the efficiency of school-wide intervention programs. View frequency, severity and resulting consequences by student or teacher. Identify at-risk students, bullying behavior, and student achievements.

Achievement

Acknowledge positive behavior and student achievements with iNotice. Teachers and staff collect student achievement data anytime, anywhere. Identify students modeling positive behavior and provide authentic, positive reinforcement. Sort and print personalized achievement certificates, or personalized email in minutes.

<http://www.media-x.com/products/inotice/index.php>

mPics

The fast and easy students photos-on-a-Palm solution from Media-X Systems



- An entire school of photos on your handheld
- Search by first name, last name, grade and student ID
- Fast, portable and easy to use
- Quickly verify the identity of any student in the school

- Browse records showing student's name, grade and photo
- Increase school safety with fast identification in emergencies
- Hassle-free set-up through Media-X, using your yearbook Photo CD
- Compatible with PalmOS handhelds with MultiMediaCard slots



<http://www.media-x.com/new2003/web2003/Products03/PhotostoGo/index.php>

<http://www.media-x.com/products/photos2go/conflict.php> (see mPics in action)

More Management Applications for Palm in Education:

PAAM Software: <http://www.goknow.com/Products/PAAM.html>

Thought Manager for Education: <http://www.handshigh.com/html/tmeducation.html>

Classroom Wizard: <http://www.scantron.com/products/wizard/howitworks.asp>

e-Assessment (Reading Assessment Tool):

http://www.rigby.com/c/@YRZHRQMfCp.0Q/Pages/class_eass_content.html

LearnTrac Teaching & Assessment Tool: <http://www.elearningdynamics.com/products.html>

Wireless Generation (Assessment Tool): <http://www.wirelessgeneration.com/web/> and

<http://www.wirelessgeneration.com/web/products.html>

Portsmouth Multi-slot Cradle <http://www.portsmith.com/>

30-Slot Charging Cart by iGo <http://www.igo.com>



More examples of educational applications for Palm OS:

ImagiMath Suite by Imagiworks: <http://www.imagiworks.com/index8.hi>

Power One Graph (i.e. scientific calculators) by Infinity Software:

<http://www.infinitysw.com/products/poweronegraph.html>

DataPro and Probes by Vernier: <http://www.vernier.com/>

Probeware Kit for Palm by Pasco: <http://www.pasco.com/palm/>

Planetarium for Palm: <http://www.aho.ch/pilotplanets/>

Periodic Table of Elements for Palm: <http://www3.sympatico.ca/marywong/ChemTable/>

Palm Reader & eBook Studio (reading eBooks):

<http://www.palmdigitalmedia.com/product/reader/browse/free>

How to Get Started with Handheld Computers in the Classroom:

Professional Development by GoKnow <http://www.goknow.com/ProfDev.html> (click also on "Consulting" and "Workshops." If not able to access the site, click [here.](#))

- * Using Handheld Technologies for Leading, Teaching, & Learning <http://educatorspalm.org>
- Readers' Choice Awards for Handheld Technologies in [eSchool News](#) – info is 1 yr. old
- * Learning in Hand: Handhelds in the Classroom (fantastic resource for articles, applications, e-books, tutorials, management, comparison of software and hardware, and much more.) <http://www.mpsomaha.org/willow/p5/handhelds/index.html>

Press Release - Palm, Inc.

Palm Tungsten C Handheld Drives New Wireless Systems for Schools

Array Of Wireless Products Unveiled at National Educational Computing Conference

Edited by Charlie White

With nearly one-third of K-12 public schools and 85 percent of colleges in the United States now using wireless networking technology, educators attending the National Educational Computing Conference (NECC) here lined up today to see the new Palm Tungsten C handheld, a high-speed wireless device with integrated 802.11b technology, and an array of wireless products from Palm solution providers.

Palm, Inc. also continued to build momentum for the Palm Zire family of handhelds with today's announcement of a Zire 71 Education Limited Edition handheld. Introduced in April, the Zire 71 features a built-in digital camera, audio/video playback capabilities and Palm's sharpest high-resolution color screen. The Education Limited Edition package includes DataViz Documents To Go and Road Scholar 2003 - 04 - Student Edition from Handmark, Inc., a suite of Palm OS applications designed to organize class schedules and assignments, and tools to help students excel in any subject. The Zire 71 Education Limited Edition handheld will be available in August for \$309 (estimated U.S. street price).

With built-in 802.11b technology and a built-in keyboard, the Tungsten C handheld empowers administrators to stay connected to students, teachers, office staff and parents using email and Instant Messaging. In addition, administrators can use the device to collaborate on budgets; facilitate activities; access the Internet; and get to information in data repositories, such as school test scores and Student Information Systems that contain student profiles, class schedules and emergency contacts.

Wireless product demonstrations at NECC include the following:

- Wireless printing with PrintBoy printing software for the Palm OS platform, from Bachmann Software & Services, LLC.
- HanDBase, a relational database from DDH Software with support for wireless syncing via 802.11, IrDA, Bluetooth and TCPIP.
- Teacherpalm, a mobile classroom administration product from Discovery Software, which supports wireless applications, including gradebook, attendance and discipline functions. The product complements Principalm, which allows principals to have a complete mobile student database, including color pictures, class schedules and parent contact details.
- LearnTrac, a wireless networked system for administrators, teachers, students and parents that automates classroom administration and provides tracking and analysis of student comprehension and performance.
- Wireless Portfolio WP802b from Enfora, Inc., which provides 802.11b wireless connectivity for most Palm handhelds. Its unique design includes an integrated battery to operate the 802.11b radio, and a leather or denim twill carrying case.
- The Assessa testing system from EyeCues Education Systems, Inc., which works wirelessly with the Tungsten C handheld. The system lets educators administer tests and assignments, and real time in-class interactions. Data collected may be used in advanced data-driven decision-making analysis.

- iNotice from Media-X Systems, a web-based school / district application for tracking student incidents and achievements that connects to Palm handhelds using network or conventional cradles and also works with the Palm Tungsten W or Tungsten C wireless connections.
- iGo Pitch Duo from iGo / Mobility Electronics, Inc., which allows handheld and smartphone users to give and control presentations from their devices -- wirelessly.
- Classroom Wizard 4.0 with 802.11 capabilities. Classroom Wizard from Scantron Corporation uses handheld technology to test, score and analyze student performance in real time.
- A new beaming station from TriBeam Technologies, Inc., which enables the built-in infrared port to reach 50 feet or more, and features two-way wireless for an entire class. With the new broadcast feature, assignments, eBooks, schedules, web pages and Palm applications can be beamed to the entire class at the same time.

Palm has an Education Purchase Program that offers additional free handhelds for various purchase levels. Under the Education Purchase Program, schools must usually purchase bundles of the same model. At NECC, Palm announced a new offer within this program that qualifies schools for the campus commitment level discount with the purchase of a mix of 500 Zire 71 and Tungsten C handhelds. The campus level price gives schools an additional 72 free units, with models determined proportionally to the order. The special program begins July 1 and ends Sept. 30, 2003. The Education Purchase Program is designed to assist schools in deploying Palm handhelds in classrooms, in larger school projects and in campuswide initiatives.

Source: Palm, Inc. (Seattle, June 30, 2003)

A few personal comments about the Palm Handheld Computers:

My sense at the conference was that Palm has the market for education pretty wrapped up at this point, though its competition, the Pocket PC that runs on the Microsoft Operating System, is working to catch up.

Palm has done what Apple did back in the 80's. They set out to target the field of education, and they sold and/or provided complete classroom sets to schools in an affordable way. Because Palm was targeting the education market, many other companies created products that could be used with Palm OS (the Palm Operating System) – particularly for educational applications. That is why many of the above applications work only with Palm OS – not with Microsoft.

Which to buy? Palm or Pocket PC

I believe the answer to that question depends on what one wants to use the handheld computer for. If they are to be used by a classroom of students, it seems to me that the Palm is the best choice now – simply because the Pocket PC hasn't caught up, and because the Palms are less expensive. Palms are considered to be a bit easier to use, a bit more stable, and a bit less expensive. They also have more educational applications.

On the other hand, if the purpose is simply to use them, as an adult, for giving a presentation to a group (students or adults) using documents created in Microsoft Powerpoint, Word, or Excel, then I believe the Pocket PC may be more convenient – if only to keep the formatting of documents intact (“looking the same”).

Palm OS has a program called Documents to Go by DataViz (<http://www.dataviz.com/products/documentstogo/index.html>). With this program, the handheld computer can read Microsoft Office Documents (Word, Excel, Powerpoint) and even make changes to them.

However, we all know how much the formatting of a Word Document can change when read by two different computers – even if they both have Microsoft Office on them. Maybe they have different versions of Microsoft Office, or maybe they have different fonts loaded on each machine. It seems to me that when reading a Microsoft Document, there will be a better chance of having it “look the same” if reading it with a Microsoft program being run on a Microsoft operating system. Palm OS may only have 4 fonts available. With a Pocket PC, there is more available memory, the option to put on whatever fonts you want, and more than one program can be run at one time.

Of course, one solution is to turn your document into a PDF file (using Adobe Acrobat) before putting on your Palm Handheld Computer. For any operating system, that is the best way to ensure that it will look exactly the same as when you created it, no matter what computer it is presented from.

The impression I got at the conference is that the Palm-Pocket PC debate is similar to that of Pepsi vs. Coca Cola, or McDonalds vs. Burger King. People seem to feel very strongly about one or the other. The Palm users swear by the Palm – very emotionally. And the Pocket PC users swear by the Pocket PC – equally emotionally. Both give great sales pitches!

Novell's GroupWise, by the way, can be run on both the Palm Handheld and the Pocket PC:

- <http://www.novell.com/news/leadstories/2001/may18/>
- http://www.novell.com/coolsolutions/gwmag/features/trenches/tr_jarna_wireless_gw.html
- http://www.novell.com/coolsolutions/gwmag/features/tips/t_tip_sync_pocket_pc_gw.html

Palm Operating System:

Palm:

<http://www.palm.com/us/>

Sony:

http://www.sonystyle.com/is-bin/INTERSHOP.enfinity/eCS/Store/en/-/USD/SY_BrowseCatalog-Start?CategoryName=hp

Pocket PC (a few):

Toshiba:

http://www.csd.toshiba.com/cgi-bin/tais/pc/pc_prodList.jsp?comm=CS&plin=Toshiba%20Pocket%20PC

Hewlett-Packard

<http://welcome.hp.com/country/us/eng/prodserv/handheld.html>

<http://government.hp.com/k12/computing/index.html>

Dell

http://www.dell.com/us/en/gen/topics/segtopic_axim.htm

A few things to consider when choosing a handheld computer:

What card slots and ports are available?

- SD Card (Secure Digital Card – works like a CD-Rom for storage – SD cards can be purchased with either 32, 64, 128, 256, and 512 MB of space.
- CF Card (Compact Flash) – some believe this type of storage card is on its way out
- Infra-red Port
- USB Port(s) – i.e. for attaching a foldable keyboard

(i.e. http://bizrate.lycos.com/buy/products_cat_id--46006,keyword--Palm%20Keyboard,rf--wgg.html)

Does the handheld have 802.11b and/or BlueTooth technology included? Or do you plan to use something like the Wireless Portfolio WP802b by Enfora (<http://www.enfora.com>)?

How will the students “sync” their work to the teacher or printer? With Palms, would you use PrintBoy (<http://www.bachmannsoftware.com/products.htm>) for printing and/or PAAM (Palm Artifact & Assessment Manager) (<http://www.goknow.com/Products/PAAM.html>) for “filing” and tracking student work? Can both Palms and Pocket PC’s be used for these tools?

If you plan to use the handheld with a projector, how do you plan to that? Using the Margi Presenter-to-Go (<http://www.margi.com>) or wirelessly using a wireless projector utility?

Wireless Connectivity in Schools

WAN = Wide Area Network (within a district)

LAN = Local Area Network (within a school)

PAN = Personal Area Network (within a classroom)

802.11b (802.11g is coming out, and is more secure, but is more expensive and not wide-spread as yet)

An example of Wi-Fi = wireless networking – think of it as an *invisible ethernet*

Uses Radio Waves

Requires Wireless Access Points and a Router

BlueTooth

Uses Radio Waves

Device → Device (i.e. Beam documents from handheld computer to printer)

Think of it as an *invisible USB Cable*

Blue Fish

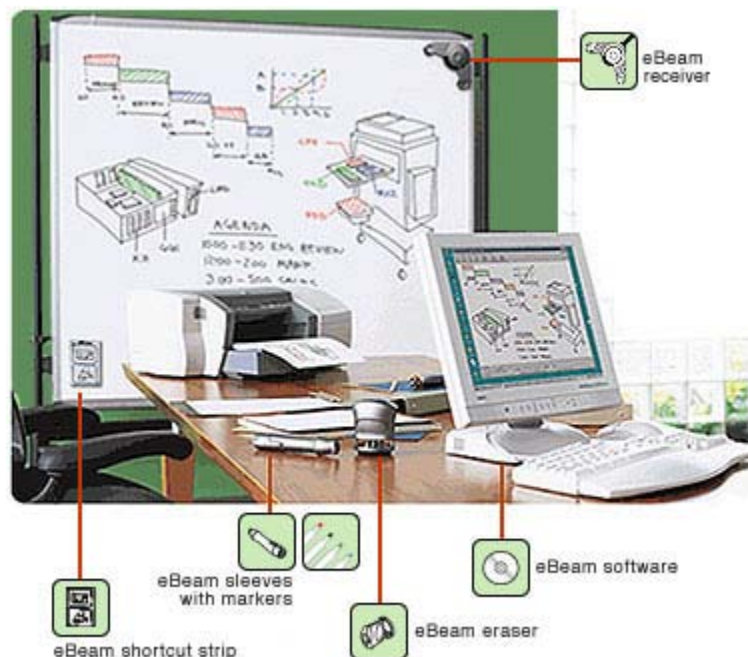
This is not a way of connecting device to device, or device to internet, or providing any wireless connectivity. This is a delivery mechanism that uses IR (infra-red). When holding your Palm Handheld Computer up to a Blue Fish station, selected documents will be “beamed” into your handheld computer.

Other “cool” wireless technology:

E-Beam

<http://www.e-beam.com/>

What you write on the whiteboard shows up on the students’ handheld computers, or onto a handheld computer that is connected to a projector by way of a MARGI System (<http://www.margi.com/>)



SMART Board Interactive White Board:

<http://www.smarttech.com/products/smartboard/index.asp>

The SMART Board interactive whiteboard turns your computer and projector into a powerful tool for teaching, collaborating and presenting. With a computer image projected onto the board, you can simply press on its large, touch-sensitive surface to access and control any application. Using a pen from the SMART Pen Tray, you can work naturally at the board to take notes and highlight important information. Whenever you meet, teach, train or present, the SMART Board interactive whiteboard helps your group save time, increase interactivity and improve communication.

Interact

Touch the board to control any computer application.

Create

Write notes, draw diagrams and illustrate ideas.

Focus

Highlight key information with electronic ink.

Capture

Save, print or e-mail notes.

Simplify

Work naturally at the board with familiar, easy-to-use tools.



How to Hack Windows?

By Brent Williams
B.S. Electrical Engineering Technology
M.S. Technology Management
Ph.D. candidate in Higher Educational Leadership
Instructor, Systems, Networks, and Security
Educational Technology Center
Kennesaw State University
(770) 423-6573
brwillia@kennesaw.edu

Slides for Presentation may be viewed at:

<http://edtech.kennesaw.edu/brent/brentdocs/How%20to%20Hack%20NECC%202003%20Presentation.ppt>

(Or go to: <http://edtech.kennesaw.edu/brent/Presentations.htm> and click on "How to Hack." If all else fails ☺, click [here](#).)

Notes from Presentation on How to Hack Windows (to accompany the slides):

A hacker may be defined as someone who breaks into a system. Non-professional hackers simply look for targets of opportunity.

Most system administrators are self-taught and don't know basic security issues.

A script-kiddie is another term for "middle school hackers."

Steps to Hacking:

- **Case the Establishment**
 - Public Sources (Your domain name is public information and certain information will be available to public if searched for)
 - Social Engineering (make phone calls, pretend to be system engineer, etc. – get user id's & passwords – may try 100 times and get 2 successes)
- **Network Hacking (attack a Server)**
 - Think about what is stored on a server – storage of student grades, financial information
 - Goal of hacker may be either: 1) Information retrieval or 2) System Damage
- **System Hacking (attack a PC)**
 - Think about what is stored on a teacher's individual PC – copies of tests, gradebook
 - Goal of hacker is the same as for the server: 1) Information retrieval or 2) System Damage

Steps to a NETWORK ATTACK (attacking a server):

1. Footprinting: Target Acquisition

- Visit their web site, look at source code
- Open source search – people (<http://www.allwhois.com> or <http://www.arin.net>)
- Nslookup
- Tracert
- Visual Route




See Slides from Presentation Slideshow

The goal is to find the names of the servers and/or a diagram of the network. The [www.allwhois](http://www.allwhois.com) site gives:

- IP Addresses
- Public Domain Information
- dns address

2. Scanning

- Ping Sweeps
 - Ping
 - Ultrascan
 - Superscan  (see slide)
 - ws_ping (ipswitch)
- Look for
 - Port 80 (Microsoft)
 - Port 139 & 445
 - Port 21 (ftp)

* *Protect and Check*

- Firewall Software
 - <http://www.networkice.com> is used by his university
 - <http://www.zonealarm.com> is good product & free
- Shields Up? – to test firewall
 - <http://www.grc.com> recommended

3. Decide how to “Break In”

- Use a Web Browser & Exploit a Weakness
 - Buffer Overflow (plant Netcat): Type in URL in a certain way, and plant a code that allows you access from other system by remote (Netcat)
 - Unchecked Data
- Attach
 - Use a Null connection – to NT or 2000 Server
Net use \\ip\ipc\$ (ip = ip address)
 - Look for Shares (ip address or server name)

EXAMPLE – What you want:

- Identify Valid User Accounts
(* recommend re-naming admin account)
- Identify Group Membership
- Find Poorly Protected Shares
- Tools
 - Winfingerprint
 - Superscan
 - Dumpsec

For Windows NT and 2000, Dumpsec dumps the accounts and groups and password hashes (encrypted), but then there is a tool to break the encryption (i.e. lc4)

- * Recommend making password:
 - Long – at least 8 characters
 - use numbers in addition to letters
 - use uppercase and lowercase letters
 - mix up the letters

When a password is this complicated, the programs that break encryption will take so long that most hackers (other than the professionals) will move on to an easier target.

There are only scattered notes for the remainder of the slides – I just listened.

* Recommendations for Protecting Windows Servers

- Run the Microsoft Baseline Security Analyzer:
<http://www.microsoft.com/technet/treeview/default.asp?url=/technet/security/tools/Tools/MBSAhome.asp>
- Use password policies (for example):
 - Require user to change password every 30 or 60 days
 - 8 characters or longer password (see password recommendations above)
- System Administrator needs to learn about NTFS permissions vs. Share permissions
- Latest Service Packs and Patches
- Firewall Software

Wireless Hacking:

- 802.11b is open by default
- Black Hat Hackers – “warchalking” – drive around with a laptop, wireless card, running netstumbler – identifies open wireless systems.
- 802.11g is better – but not widespread yet – also more expensive

Workstation Attack:

- Windows 98 is not securable at all.

- Every time the computer prompts you for a password a SECOND time, it creates a PWL file (.pwl) – this “writes” the password into the hard drive.
- The .pwl extension files have passwords on them. The hacker can copy these files onto a disk and take them home – and run password software to break the encryption.
- * Leave the second password prompt blank!
- Password-protected documents are breakable with <http://www.lostpassword.com> or <http://www.lostpasswords.com> .
- Keystroke logging – This can be installed by e-mail attachments, or by planting on the computer system itself. This tool copies every keystroke and mouse movement and e-mails it to the installer (the hacker).

* Workstation Attack Prevention

- Firewall – especially with cable and DSL
- Limit Shares – Use Passwords
- Make Document Passwords LONG
- Be aware of PWL files

Spyware:

- The newest threat
- Visit an innocuous web site and it installs spyware through Internet Explorer. Spyware is used to mine personal information. It destabilizes the PC.
- * SpyBot – the best defense – and its free
 - Identifies spyware
 - Gets rid of it
 - Enables security device that prevents spyware from being installed

Kennesaw State University found 50 – 100 spyware installations per computer on campus.

Problems still to be dealt with:

- E-mail filters look for words and not HTML.

Where Hackers get their tools and learn about hacking:

- <http://www.2600.com>
- <http://hackersclub.net>
- <http://hackingexposed.com> (* BEST source of info if new to hacking)

* Learn the Basics: Permissions, Intruder Lockout, Null Connections

Visual Literacy: What you Get is What you See!

By Lynell Burmark, Ph.D.
 Thornburg Center for Professional Development
<http://www.tcpd.org>
lynellb@aol.com



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What You See

Used to be: What you See is What you Get. Now it is: What you Get is What you See. (Examples were projected pictures)

- From WYSIWYG to WYGIWYS™
- Pink-haired lady – Stealing paintings? Teaching children? – judging by what we see
- Tacoma Narrows Bridge and the Olympic Peninsula – home sweet home
- The Daytimer – courtesy of Kinko’s.

LEFT BRAIN	
Linguistic	Visual
Cognitive ???	Perceptive ???
Details	Big Picture
Linear	???
Sequential	Simultaneous

Image & Color

Eye goes more to the image than to the text, more to color than b/w. Eye is drawn to yellow the fastest, and to red the second fastest. Yellow is a good color for highlighting because the eye goes to 1) yellow and 2) motion.

- Where does the eye go? (Adobe ad)
- What does color add to the bottom line? Recall 33 % greater. (Xerox Corp)
- We can locate a target word in color 74 % faster. (Loyola University study)
- What is black and white and red all over? paper that teacher has corrected
- Color power and meaning:
 - Red
 - Yellow
 - Blue
 - Green
 - Orange + Blue + White*
 - Pink
 - Sepia
 - Black

Blue is a good background color because it recedes into background (i.e. sky, sea); it is soothing; it is a good contrast to yellow. Yellow is a good foreground color – for drawing the attention. Green is also good for background. Green represents fertility, spring, new birth, and it also tends to recede – in addition to inspiring creativity, associated with art. Pink makes one salivate. Sepia is the brown tone from old pictures. How one feels about a color depends on their background experiences.

* Approximately ___% of a person’s impression of a product is based on its color.
 Laundry detergent! (*Brand Packaging* magazine) –i.e. Tide detergent

Visual Processors

Cognition follows vision.

- “Competence, like truth . . . is in the eye of the beholder.” – Laurence J. Peter
- Each optic nerve has 1 billion fibers; each auditory nerve has _____.
- Dual coding, sequential vs. simultaneous, detail vs. big picture. (Allan Paivio)
- Humans process graphics 60,000 times faster than text. (3M research)
- Roses, trees, cats, sunsets – life’s visual experiences. Eugene’s letter to God: “I didn’t think until I saw . . .”
- Video knocking down the walls of the classroom: *Why would you teach any other way? Weathering and Erosion* from 100% Educational Videos, <http://www.schoolvideos.com>

Multiple Streams

- Evolution of Media – from *Leave It to Beaver* to *The West Wing*

According to Lee Pulos, Ph.D., a high stimulation, multi-sensory approach leads to:

- Greater focus (heightened awareness)
- Accelerated learning
- Increased retention

- The 3-screen approach (“SuperTeaching to Quantum Learning,” Lee Pulos, Ph.D.)
- India/Kerala (land of coconuts); Varkala Beach in Trivandrum. Photos by Rashmi Sinha.

The Death of Text

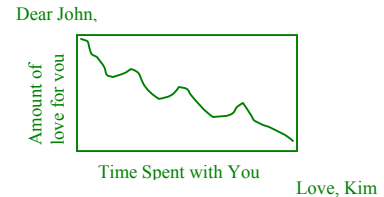
- From 1950-1999, the vocabulary of the average 14-year-old, went from 25,000 to 10,000 words.
- By high school graduation, kids watch 22,000 hours of television. By 1996, _____% of American kids had TV sets in their bedrooms. (vs. 12,000 hours in the classroom)
- 22% of college students would rather pick up trash than write a paper; 47% would rather donate blood.
- “Text is toast.” (Geoffrey Meredith, “The Demise of Writing,” *The Futurist*, Oct ’99).

Synergy of Words & Images

- Cartoons, comic strips, Fathers’ Day card, Jerome Burg’s English class in Livermore, CA
- Visual aspect of text – typefaces, invitations (Adobe), recipes (St. Joseph’s, Boynton Beach, FL) business cards (Kinko’s), ransom notes

Charts & Graphs

- *Dear John, Who’s to Blame* courtesy of Kinko’s.
- New Year’s Resolution - wipe up graph versus photo.



Sources of Images (free)

- Scanning – student work, periodicals, illustrated books, e.g., Harcourt *Science*
- Digital cameras – Nobody’s Inn (Wasilla, AK)
- Web search engines and image generators (Google, Yahoo, Alta Vista, etc.)
- Web sites:
 - The Natural Child Project <http://naturalchild.org/gallery>
 - Web Museum, painters <http://metalab.unc.edu/wm/paint>
 - Pics 4 Learning <http://pics.tech4learning.com/pics>
 - Astronomy Pic of the Day <http://antwrp.gsfc.nasa.gov/apod>
 - National Oceanic & Atmospheric Admin. <http://www.photolib.noaa.gov/collections.html>
 - Civil War <http://memory.loc.gov/ammem/cwphtml/cwphome.html>
 - Images of the 20th Century <http://www.nara.gov>

Why visuals?

- Data from 55 experiments comparing learning from illustrated text vs. text alone. _____% better performance with illustrated texts! (Levie & Lentz)
- Images have a direct route to long-term memory. *The Use and Capture of Images for Computer-Based Learning, Section I: Images and learning*, Advisory Group on Computer Graphics (AGOCG) report, 1999. <http://www.acogc.ac.uk/reports/graphics/capture2/sect1.htm>
- Use images to introduce new topics, to illustrate student projects, and as assessment tools to celebrate students’ understanding. Get replicable ideas from the *Visual Literacy* book; see slideshows and activities on the *See to Learn* CD. <http://www.tcpd.org/Burmark/Books/VisualBook.html>

Funding Your Dreams: Grantwriting in the Information Age

By Sheryl Abshire
 Director of Technology
 Calcasieu Parish Public Schools
 Lake Charles, Louisiana
<http://www.cpsb.org/abshire/>
sheryl.abshire@cpsb.org

Join the Beam Team: New Frontiers in Teaching and Learning

By Annette Lamb
<http://www.eduscapes.com/sessions/beam/>
alamb@eduscapes.com

Join the Beam Team – presentation handout

Beam Me Up!

- Start Trek Video - http://www.startrek.com/library/media_TOS.asp?id=18719
- Start Trek Video - <ftp://graffiti.u-bordeaux.fr/astro/anim/startrek/voyclips/beamnel.avi.gz>
- Beam Article - http://www.space.com/business/technology/australia_teleport_020618.html

How Far Have We Come? Field Trips of the 60s -
Endless Tools

Endless Opportunities

- Virtual adventures
- Real-time data sharing
- Real-time communication & Collaboration
- Science & Cultural Exchange
- GLOBE - <http://www.globe.gov/>

Are you ready to join the beam team?
Mission: Explore new frontiers of teaching & learning. No traffic jams, security lines, or costly tickets

Dream Team Membership

You need a thirst for knowledge, destination, and a guide to lead the way. Remember: It's the journey, not the destination that matters.

The Goal

Address standards. Meet individual needs. Engage students. New worlds of teaching & learning

Think Synergy! The Correct Answer?

A) Desktop Computers B) Internet C) Handhelds D) All of the Above!

Symbiosis

Books & Internet
Outside with Palms, Cameras, Computer
Friendships in Nature by James Gary Hines II
<http://www.wshs.fcps.k12.va.us/academic/science/bjewell/ocean/hhocean/symbiosis2.htm>
<http://www.cals.ncsu.edu/course/ent591k/symbiosis.html>
Digital Camera & Palms
Check off plants & animals
Record observations
Write poems
Kidspiration

The Big Question... Why Technology?

Value-Added Services - What does it take to get people to spend \$50 per day to visit an amusement park?

Value-Added Technology - What does it take to make technology worth the time and effort? The Learning Experience

E's of the Learning Experience

- Excite
- Enhance
- Engage
- Experiment
- Exchange
- Explore

* 6 Good Reasons to Use Technology to Expand the Learning Experience

Excite

- WebQuests
 - Inquiry-based learning
 - Fun, meaningful activities
 - Real-world information
 - Good use of Internet resources
- <http://eduscapes.com/tap/topic4.htm> *
- <http://www.usd305.com/staffdev/k-8currtech/CurtX/webquest/space/space.htm>
- <http://www.exploratorium.edu/eclipse/index.html>
- <http://www.eduscapes.com/42explore/astronomy.htm>

Enhance

- Scenarios
- Interdisciplinary Connections
- Multiple Intelligences
- Real-world Applications
- Visualize Vocabulary
- Multiple Examples

- Combine text, audio, visuals
- Combine content areas: Language Arts, Fine Arts, Science
- *Gopher Up Your Sleeve* by Tony Johnston
- <http://www.enature.com/>

Engage

- What if - Spreadsheets
- Budgets, Endangered Animals
- Interactive Projects
- Simulations
- <http://www.scholastic.com/kids/games.htm>
- <http://www.scholastic.com/kids/president/game.htm> *

Experiment

- Identify problems
- Brainstorm ideas
- Discuss the possibilities
- Test out ideas
- Draw conclusions
- <http://earthobservatory.nasa.gov/>

Exchange

- Ideas
- Understandings
- Experiences
- Perspectives
- Interests
- Cultural Celebrations - Saint Francis of Assisi's Day - Mexico, US, World
- *Blanca's Feathers, Antonio Hernandez Madrigal*
- <http://www.eduscapes.com/42explore/latino.htm>
- Latino-Hispanic Heritage - Books, Web Resources, Email Exchanges, Oral History Videos - Great Depression, Cultural
- *Esperanza Rising, Pam Munoz Ryan*
- <http://www.ala.org/alsc/belpre.html>
- <http://teacher.scholastic.com/arrow/toppicks/index.htm>
- <http://www.pammunozryan.com/>
- <http://Bookmuse.com/pages/kids/musenotes/nsk/idsnotes.asp?group=35&genre=rfiction&book=106>
- <http://www.cyberspaces.net/Nixon/AR/Esper.html>
- <http://www.epals.com> *
- <http://www.ika.com/cuentos/>
- <http://www.ika.com/stories/menu.html>
- <http://www.cnnenespanol.com/>
- <http://www.mundolatino.org/us.htm>
- <http://disneylatino.com/>

Explore

- Real Field Trips
- Virtual Visits - People, Places, Things
- *Island of the Blue Dolphins, Scott O'Dell, 1961*
- Combine Traditional Activities & New Approaches
- <http://eduscapes.com/tap/topic35.htm>
- Virtual Trips: Museums
 - Science Museums
 - Art Museums
 - History Museums
- <http://www.getty.edu/art/exhibitions/devices/flash/>
- <http://guggenheim.com>
- <http://www.loc.gov/exhibits/>
- <http://www.loc.gov/exhibits/jefferson/>
- Virtual Trips: Time and Place
- Other Times - The Pyramids, Oregon Trail
- Other Places - Moon, Planets, Beyond

- <http://www.cyberbee.com/wwho/>
- Virtual Trips: Interaction & Act
- Collaboration, Combine local efforts, global efforts
- <http://www.goals.com/Index.htm>
- <http://goals.com/gle/ce/page04.html>
- Mindfulness
 - Passively - negative impact
 - Actively - negative impact
 - Actively - positive impact
 - Passively - positive impact
- <http://www.tolerance.org/>
- <http://www.idealists.org/>

New Frontiers!

- Software Safari
- Internet Island
- Palm Paradise
- Combo Cruise

Software Safari

- Multimedia
- Interactive Books
- Simulations
- Tutorials
- Practice Tools
- Address Learning Needs
- Interactive Books & Adventures
 - Electronic books - Green Eggs & Ham
 - Adventure Games - The Legend of Zelda
- Simulations
 - Decisions, Decisions - Tom Snyder - <http://www.teachtsp.com/products/productdetail.asp?PS=DECDEC>
- Tutorials
 - Study and Thinking Skills Braincogs - <http://www.fablevision.com/braincogs/index.html>
- Practice Environments
 - World Languages - Encarta Language Learning
 - Math & Logic - Logical Journey
- Tools
- Writing - Amelia's Notebook
- Concept Maps - Inspiration & Kidspiration
- <http://eduscapes.com/tap/topic3.htm>

Internet Island

- In-depth, Unique Content
- Multiple Perspectives
- Multiple Channels
- Interaction
- Timeliness & Tools
- Multiple Intelligences
- Verbal Linguistic

- Solve a Mystery
- Use text - narrative, directories
- audio - voice mail
- maps - look up addresses
- Read a book & make a book
- <http://www.superpages.com/enlightenme/superthinkers/> *
- <http://www.superpages.com/enlightenme/superthinkers/book.html>
- Mathematical/Logical
 - Explore math concepts
 - Learn formulas
 - Solve problems
 - Add visual components,
 - Add kinesthetic aspects
 - <http://www.exploremath.com/>
 - <http://www.exploremath.com/activities/index.cfm>
- Musical
 - Listen to music
 - Explore the lyrics
 - Listen to sounds
 - <http://www.niehs.nih.gov/kids/music.htm>
 - <http://www.niehs.nih.gov/kids/musicchild.htm>
 - <http://www.niehs.nih.gov/kids/lyrics/sunshine.htm>
 - <http://www.wildwildweather.com/>
 - <http://www.niehs.nih.gov/kids/lyrics/kookaburra.htm>
- Visual/Spatial
 - Photographs
 - Diagrams
 - Line Drawings
 - Artwork
 - Charts & Graphs
 - <http://www.pbs.org/wgbh/amex/kids/civilrights/snapshot.html>
 - <http://nces.ed.gov/nceskids/Graphing/>
- Bodily/Kinesthetic
 - Fitness Tools
 - Movement Ideas
 - Active Projects
 - <http://www.peclogit.org/logit.asp>
 - <http://www.handsoncrafts.org/index.htm>
- Interpersonal
 - Email
 - Video Conferencing
 - Chat
 - Forums
 - Reading & Sharing
 - Book Discussions: Face-to-Face, Online
 - The Sisterhood of Traveling Pants, Ann Brashares
 - <http://www.travelingpants.com/>
 - <http://www.randomhouse.com/teens/travelingpants/>
 - Discussion – Topics, Rules, Letters Quotes
 - <http://www.nicenet.org/>
- Intrapersonal
 - Write an essay OR Read... think, explore, reflect, share
 - Fountainhead, Ayn Rand
 - <http://www.aynrand.org/objectivism/>
- Naturalist
 - Ecology, Nature Studies

- <http://www.inspire.net/trees/index.html>

Palm Paradise

- Accessible • Portable • Flexible • Expandable • Interactive
- Types of Handheld Computers
 - Pocket PC - Windows CE
 - Palm - Palm OS
- Teacher Organizing Tools
 - Scheduling Grading & Tracking progress
 - Attendance
 - Inventory
 - Lesson plans
 - Lecture notes
 - Unobtrusive observation
 - *Teacher's PET*
- Student Organizing Tools
 - Reading lists
 - Assignment tracking
 - Collaboration
 - Homework software
 - *ImagiSolve*
- Learning Tools:
 - Instructional
 - Tutorials
 - Simulations
 - Games
 - Practice & Testing
 - Drill & Practice
 - Testing & Quizzes
 - Flash cards
 - Q&A
 - FAQs
 - Lists
 - *Quizzler*
 - *Cooties*
- Information Tools
 - References
 - Language Translation
 - Speeches (read & listen)
 - Articles and Books
 - Maps and Diagrams
 - *Absolute Word Dictionary*
- Production Tools: Word Processing
 - Note Taking
 - Journaling and Logging
 - Prompts
 - Language Arts
 - Lab & Field Notes
 - Messages and Email
 - *FreeWrite*
- Production Tools: Data Management
 - Database
 - Checklists
 - Outline Poll
 - Poll & survey data
 - Identification keys
 - *ThinkDB SurveyMate*
- Production Tools: Calculation

- Spreadsheet
- Calculator
- Graphing Calculator
- *ImagiMath*
- Production Tools: Graphics
 - Graphing
 - Concept mapping
 - Timelines
- Production Tools: Imaging
 - Sketching
 - Drawing
 - Scrapbook
 - Slideshow
 - Photo Albums
 - *Sketchy*
 - *Go N Tell*
- Portable Electronic Keyboards
 - Portable word processor
 - Enter and edit text
 - Saves, prints or uploads file
 - Dreamwriter, Alphasmart
- Digital Audio Recorder
 - Records & stores sound/voice
 - Can be stand-alone or PDA attachment.
- MP3 & Data Storage
 - Download & play MP3 files
 - Some (iPod) have data storage and retrieval
 - Can be stand-alone or PDA attachment.
- Digital Imaging: Video Camera
 - Takes & stores photos & video
 - Play or upload to computer
- Digital Imaging: Still Camera
 - Takes & stores photos & video
 - Upload or print
 - Can be stand-alone or PDA attachment.
- Probes & Sensors
 - Monitors, measures, & collects data
 - Can be stand-alone or PDA attachment.
- Calculators
 - Calculate
 - Graph
 - Can be stand-alone or PDA software.
- Ebook Reader
 - Download and read electronic books, text, and documents - Can be stand-alone or PDA software
- GPS: Global Positioning Satellite
 - Uses satellites to locate specific coordinates
 - Can be stand-alone, computer, or PDA attachment.
- Teacher Tap Handheld - <http://eduscapes.com/tap/topic78.htm>
- GPS finds location
- walkie talkie contact
- wind speed sensor
- PDA & water probe
- Combined cost < laptop!
- Mathematics - Nature Park Project
 - Audio Directions
 - Graphing Calculator
- Social Studies Project - Oral History Project City Centennial
 - PDA schedule, Q&A, survey
 - Digital video interview
 - Upload to desktop computer
- Language Arts & Physical Education Bicycle Safety Project
 - Still camera photos
 - Keyboard write step-by-step instructions
 - Upload and create webpage

How Do You Learn Best?

Integrate virtual visit approach:

Explore a Place

Plan a Trip

Thematic Trip

Have an Impact

<http://teacher.scholastic.com/activities/globaltrek/index.htm>

<http://www.lonelyplanet.com/>

Real-World Experiences

Your aunt and uncle are entering the Peace Corps, they'd like you to be involved next summer.

What will their life be like?

Where will they be living?

<http://www.peacecorps.gov/indexf.cfm>

<http://www.peacecorps.gov/countries/cameroon/index.cfm>

<http://www.loc.gov/rr/international/portals.html>

Dream Team Membership

Thirst for knowledge

Destination

Guide to lead the way

Remember: It's the journey, not the destination that matters.

Think Experiences

Authentic Resources

Multiple Approaches

Meaningful Activities

Authentic Assessments

Think Thinking!

Create synergy w/ 2+ students

Use varied resources

Allow multiple ways to share

Go beyond the classroom

Apply standards!

Changin' Times

Housewife

Architect

Archaeologist

Astronaut

Student options are endless...

<http://www.sitcomsonline.com/bewitched.html>

Combo Cruises

- Genetics on Your Palm
 - Breed Zwikis - <http://geney.juxta.com>
 - Ology - <http://www.ology.amnh.org/>
- Science - Nature Park Project

Sessions that I wanted to see but weren't able to:



➤ **E-Books: A Digital Library in Every Computer for Every Subject**

Terence Cavanaugh, University of North Florida, College of Education & Human Services

Learn to teach with interactive e-books. Discover free e-book programs and resources to create digital libraries and use e-books in reading in the content area.

<http://www.drscavanaugh.org/ebooks/>
[Hand-Out](#) (links on Hand-out do not work)

➤ **The Dynamic e-Portfolio: Building and Growing Together**

Karen Percak, The Northwestern University Collaboratory Project

During this session, we demonstrate resources the Northwestern University Collaboratory Project provides for dynamic online e-portfolio building and share ways teachers are using them.

➤ **Local to Global Collaborative Curricular Projects through iEARN**

Kristi Rennebohm-Franz, iEARN (International Education and Resource Network), with Lisa Jobson, Losira Okelo

Participants will see examples of how classrooms are collaborating on projects that build bridges, improve teaching and learning, and make a difference in the world.

<http://www.iearn.org/>

➤ **21st Century Skills: Release and Discussion of the New 21st Century Skills Report and Readiness Guide**

John Bailey, U.S. Department of Education, with John Wilson, Karen Bruett, Terry Crane, John Couch, Susan Jeannero, Peggy O'Brien

Join the Partnership for 21st Century Skills as we release the 21st Century Skills Report and Readiness Guide, and discuss its use in defining, teaching and assessing 21st Century Skills, including tech literacy.

<http://www.21stcenturyskills.org/> <http://nces.ed.gov/> (education statistics)

Click [here](#) to view the presentation hand-outs, slides, and/or web site.

➤ **XML: What is it and so what?**

Philip East, University of Northern Iowa

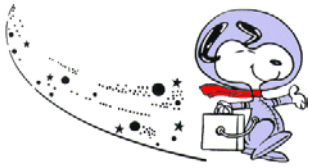
The results of one person's attempt to determine what XML is and what, if anything, it might mean with respect to the computer science curriculum.

east@cs.uni.edu

➤ **Explore the Amazing Instructional Uses of an Inexpensive Computer Microscope**

Dick Rezba, Virginia Commonwealth University

rjrezba@vcu.edu



➤ **The NASA Portal: Customizing your NASA Web Experience**

Flint Wild, NASA Teaching From Space Program, with Shelley Canright, Sandra May, Nitin Naik

Discover how NASA is delivering a sophisticated, deep experience, empowered by rich media interfaces generating an unparalleled feeling of immersion, backed by solid educational methods.

<http://education.nasa.gov/index.html>

Another recommended site is

Windows to the Universe:

<http://www.windows.ucar.edu>

rmjohnsn@ucar.edu

➤ **Integrating NASA Educational Technology**

Thomas Pinelli, NASA's Center for Distance Learning

Find out how to access and integrate free math, science, and technology programming from NASA's Center for Distance Learning into your classroom.

<http://dlcenter.larc.nasa.gov>

<http://edspace.nasa.gov>

t.e.pinelli@larc.nasa.gov

<http://spacelink.nasa.gov>

➤ **NASA Learners: New Classroom Programs with Student Inquiry Focus**

Glen Schuster, U.S. Satellite Laboratory, with Peter Coppin

NASA-funded 'Signals of Spring' links real-time animal migrations, earth data, and inquiry to science content. NASA-funded 'EventScope' lets students explore Mars in 3-D using NASA data.

[Hand-Out 1](#)

[Hand-Out 2](#)

[Hand-Out 3](#)

➤ **The Next Generation of Logo: Introducing MicroWorlds 3**

Gary Stager, Pepperdine University

MicroWorlds 3, the latest generation of constructionist software, supports project-based learning in remarkable ways. Robotics, multimedia publishing, and Web-based simulations are within reach of all learners!

<http://www.stager.org/logo.html>

➤ **Tomorrow's Classroom: Digital Display**

Jim Hirsch, Plano Independent School District, Texas, with Mary Hewwet

Learn how student learning, participation, and performance in Plano ISD have significantly improved through a curriculum developed around large-screen projection of graphics, images, and digital videos.

<http://k-12.pisd.edu/digital/>

Click [here](#) to view the presentation hand-outs, slides, and/or web site.

➤ **Windows on the Future**

Ian Jukes, InfoSavvy Group, with Ted McCain

This session explores the shift in curriculum and thinking that will be necessary to equip learners for success in the 21st century and identifies what this signifies for education and educators.

<http://www.thecommittedsardine.net/index.php>

⇒ "When the rate of change outside exceeds the rate of change inside, the end is in sight." – Jack Welch, Chairman and CEO of General Electric

⇒ "In times of change, learners inherit the earth, while the learned find themselves beautifully equipped to deal with a world that no longer exists." – Eric Hoffer

➤ **International Children’s Network: An Online Discussion Board for ESL Children**

Paul Kelly, Park Hill School District, with Paul Kelly, Mee-Aeng Ko, Shenghua Zha, Gail Fitzgerald

Join us for an interactive demonstration of activities using online discussion boards to improve communication skills and multicultural understanding of ESL students.

pvkelly@parkhill.k12.mo.us

<http://www.coe.missouri.edu/~ICN/>

Click [here](#) to view the presentation hand-outs, slides, and/or web site.

➤ **STEP-UP with PDAs and Probeware to Enhance Science Instruction**

Tony Puig, Miami Museum of Science, with Judy Henry

Learn how the STEP-UP program uses PDAs and probeware to enhance classroom- and field-based science learning for low-income, first-generation, college-bound youth.

<http://www.miamisci.org/probescience>

Click [here](#) to view the presentation hand-outs, slides, and/or web site.

➤ **“E’s on Down the Road”: Creating Electronic Portfolios**

Susan Speir, Brookwood Elementary, with Suzanne Fletcher, Shirley Batiste, Susan Murray, Brenda Mercer, Brenda Jones

This fun and fast-paced session demonstrates the ease of creating electronic portfolios. Come ready to “E’s on down the road” with e-portfolios.

sdspeir@yahoo.com

Click [here](#) to view the presentation hand-outs, slides, and/or web site.

➤ **BrainCogs: Developing Creative Cognitive Strategies with Technology for Academic Success**

Peter Reynolds, FableVision, with Kelly Fischbach , Bill Norris

Dig deeper into the research behind Dr. Lynn Meltzer's BrainCogs software. Proven classroom techniques help all students—especially "strugglers"—develop creative, effective academic strategies. (Exhibitor-sponsored session)

<http://www.fablevision.com/braincogs/>

Other FableVision sites worth visiting:

⇒ <http://www.superthinkers.com> Super Thinkers – Home of Peetnik Mysteries

⇒ <http://www.fablevision.com/stationerystudio/> Stationery Studio



➤ **OK, I Have a Palm Handheld—Now What?**

Karen Fasimpaur, K12 Handhelds

See how you can use your Palm OS handheld to strengthen school administration, improve teacher productivity, and enhance student learning.

<http://www.k12handhelds.com/necc2003>

[Hand-out 1](#)

[Slideshow](#)

[101 Educational Uses for Handheld - website](#)

➤ **The Effects of Handheld Computers on Teaching and Learning**

Elliot Soloway, U of Michigan, with Cathie Norris

We present empirical evidence that use of handheld computers does have a significant effect on teaching and learning in the classroom.

[Hand-Out](#)

➤ **Wherefore Art Thou, Telecollaboration? Rediscovering Curriculum-Based Collaborative Projects Online**

Judi Harris, School of Education, College of William & Mary

Teachers ask students to use the Web to find information much more often than to collaborate online. Why? What can we do to change this?

<http://virtual-architecture.wm.edu/>

➤ **Using PDAs For Effective Assessment in the Classroom**

Jeff Ochsner, Lincoln Public Schools

This session will provide a demonstration on how to use a PDA to quickly record and report on student progress and assessment.

jochsner@lps.org

[Hand-Out](#)

➤ **Science Projects of Tomorrow**

Manorama Talaiver, Science Museum of Virginia

From teacher-created global e-learning projects to Jason, we'll talk about classroom implementation of future sincere projects. Leave with many Web resources to identify innovative projects.

<http://sunshineva.com/NECC/futuresci.htm>

Click [here](#) to view the presentation hand-outs, slides, and/or web site.

➤ **Technology Integration with a SPARC**

Alan Walker, Prosser School District, with Dean Smith

Let the Simulation, Presentation, Analysis, Research, and Communication (SPARC) technology integration model take your staff development to the next level. Integrate the appropriate technology into any lesson using this straightforward process.

<http://www.techsparc.com/>

➤ **The Evolution of Wireless LANs and Their Effects on Education**

Eric Blaufarb, Cisco Systems, Inc.

Wireless LANs are already bringing online education to all, anytime, anywhere. Hear about future developments, and the effects these evolutions could have on education organizations. (Exhibitor-sponsored session)

<http://www.cisco.com/en/US/products/hw/wireless/>

Click [here](#) to view the presentation hand-outs, slides, and/or web site.



➤ **PDA's Investigate the "Wonders of the World"**

Terry Collins, Calcasieu Parish School System, with Felicia Coleman

Learn how to use a PDA to gather research, draw animated illustrations, and collect and organize data about the Wonders of the World!

<http://www.cpsb.org/techdepartment/techcamp2002/>

➤ **Cruisin' 66 with Brøderbund Kid Pix**

Tresa Fahler, Eisenhower Elementary School, with Sandy Nelson

Participants will gain 66 valuable ideas for integrating Kid Pix software into a PK–3 science, math, reading, and writing curriculum.

<http://www.indyschools.com/kidpix/>

➤ **The Better Way: Use Handheld Computers for Your Reading Assessment Needs**



Larry Berger, Wireless Generation

This session is designed to help you think about how to best conduct your observational reading assessments whether or not you have a Reading First grant. (Exhibitor-sponsored session)

<http://www.wgen.net/web/>

➤ **Digital Portfolios: Addressing the Essential Questions**

David Niguidula, Ideas Consulting, with Hilarie Davis

How can digital portfolios allow students to demonstrate standards while celebrating their individuality? Learn how colleagues have addressed issues of vision, assessment, technology, and culture.

<http://www.ideasconsulting.com/dp/>

➤ **Maximize PowerPoint Potential in Your Classroom**

Ellen Kelly, Chicao Public Schools/ US Ed Technology Innovation Grant, with Karen Wypych, Donna Egan

Engage your students with interactive features of PowerPoint. Students create e-books, develop interactive stories, exhibit use of nonlinear PowerPoint presentations.

<http://www.medillelem.cps.k12.il.us/NECC2003.htm>

Click [here](#) to view the presentation hand-outs, slides, and/or web site.

➤ **PDA's as Assistive Technology Devices for Special Needs Students**

Tim Morse, The University of Southern Mississippi–Gulf Coast

A demonstration of how the emerging multimedia capabilities of PDA's can enable them to be used as assistive technology devices by students with special needs.

[Hand-Out](#)

➤ **The Director in the Classroom: How Filmmaking Inspires Learning**

Nikos Theodosakis, The Director in the Classroom

Filmmaker/author/educator Nikos Theodosakis presents, examines, and offers successful classroom video projects that enhance curriculum, develop higher-order thinking skills, and deeply engage learners.

<http://www.thedirectorintheclassroom.com/presentations.php>

[Hand-Out 1](#) [Hand-Out 2](#)

Web Posters

➤ **Lifelong Learning Online: Lewis and Clark and Mars Exploration Online**

Jean Teasdale, NASA Idaho Space Grant Consortium, University of Idaho, with Michael Odell, Rodney Frey, April Christenson

Life-Long Learning Online, facilitated at the Universities of Idaho, Montana, and Wheeling Jesuit, connects Lewis and Clark to future Mars exploration in an interactive environment.

jeant@uidaho.edu

<http://www.l3-lewisandclark.com/Default.asp>

Traditional Posters

➤ **The PowerPoint Pyramid: A Framework for Powerful Presentations**

Michael Houser, DoDDS–Europe, with Amy Houser, Todd Wiedenmayer

The PowerPoint Pyramid illustrates a framework for students and teachers to plan, create, and present effective, powerful presentations.

[Slide Show](#)

Global Gallery

➤ **The Earth We Tele-Share: Creating Thinkers for the Next Generation**

Caryn Camp, Union-Endicott School District

Learn how Online Conferencing and the Language of HTML allow youth to connect and collaborate, becoming thinkers, problem solvers, and visionaries for the future!

<http://pec.jun.alaska.edu/camp/telesharing/index.htm>

😊 **My Presentation** 😊



Some sessions are available for purchase on CD-Rom. For more information, click [here](#).

To visit the site of the NECC 2003 Conference in Seattle, go to:

<http://center.uoregon.edu/NECC/NECC2003/>