Open Technologies in the Education Enterprise
CoSN K-12 Open Technologies

Welcome to the website for the new CoSN K-12 Open Technologies Leadership Initiative. The initiative is sponsored by IBM, Cisco, Pearson Education, and SAS to support the adoption and utilization of open technologies in K-12 education around the world.

Open source software, open standards and open hardware are poised to make a profound impact on K-12 education. The convergence of web technologies and a new spirit of collaboration in the education community makes this an exciting time to get involved.

The goal of this Web site is to help educators and technologists with the planning, evaluation, decision-making, and implementation processes associated with adopting Open Technologies in K-12. Initially, the site will focus on the fundamentals of the open technologies movement in education. Over time – with your help, we hope – the site’s content will grow in quantity, sophistication and direct relevance to you.

What are open technologies?

Open technologies is an umbrella term that includes open source software, open standards, and open hardware.

How can open technologies benefit K-12 schools?

The use of open technologies in education is now commonplace throughout the world with one notable

Read more
nexus one

Web meets phone.

Introducing Nexus One.
Click an icon for a demo of each app.
Open Technologies

- Open Standards
  - Clearly defined, publicly distributed protocols & processes
rss
iCalendar
Open Technologies

- **Open Standards**
  - Clearly defined, publicly distributed protocols & processes

- **Open Source Software**
  - Publicly available
  - Includes source code
  - Licensed
  - Community developed
  - Free (as in freedom, not beer)
Free(dom)
Community
Open Technologies

- Open Content
  - Creative work published in a format that explicitly allows copying and reuse
  - Some rights reserved
Why Use Open Tech?

- Reduced costs
- Quality
- Flexibility
- Performance
- Reliability
- Security
Open Tech @ Saugus

- Back office
  - Infrastructure & management
  - Virtualization

- Classroom
  - Desktop Applications
  - Web 2.0
Back-Office

- Infrastructure
  - 70+ Linux Servers
  - Lower Cost
  - Variety of Solutions

- Virtualization
  - RHEL/Xen on Blades
  - Better Resource Use
  - Hardware Agnostic
  - Rapid Deployment
  - Broad Hardware Support
Desktop Applications

- OpenDisc Free Software
  - Every new teacher gets an OpenDisc at orientation
  - Free to distribute
- Remote Control
  - Centralized Tech Support
  - No per workstation costs
Desktop Applications

- Linux on the Desktop
  - Instead of OS upgrades
  - Green Computing
transform

trans•form

| trans'fôrm |

verb
make a thorough or dramatic change in the form, appearance, or character of
• Every student needs a device
  – Inexpensive
  – Reliable
  – Durable
  – Easy to use
  – Minimal support
  – Always on connectivity

• Access to a diverse range of resources and tools

• Place to communicate, create, collaborate
Oh Hai. Ur laptop was broke ...

... but I fixted it
Why Netbooks?

Extremely portable
Inexpensive
Durable
Reliable
Always on connectivity
Why Open Tech?

- Reduced costs
- Increased access
- Flexibility & choice
- Performance
- Reliability
- Security
Linux

Firefox 3 with the Flash10 plugin
Mozilla Thunderbird (Email, Calendaring)
Skype
Adobe Reader
Instant Messaging for all services, including GTalk, AOL, MSN, Jabber, etc. (Pidgin)
OpenOffice (Sun's supported commercial version of OpenOffice)
Google Earth
Labyrinth (Mind Mapping)
Tuxpaint (like KidPix, only better)
TuxTyping (typing tutor/game)
Stellarium (astronomy software)
Celestia (astronomy software)
TuxMath (math drilling game)
Mebook (eBook Reader)
F-Spot (Photo manager)
GIMP (like Photoshop)
Dia (Diagramming)
Audacity audio recording/editing suite
MIT Scratch (Logo-style programming on steroids)
iTalc (classroom management/remote monitoring/control)
VNC for remote technical support

A number of other software programs, including:
- Longman Dictionary
- Interactive periodic table
- Letter Game (scrambled words)
- Hangman game
- Fraction tutorial
- Geometry tool
- Function Plotter
- Media Player
- Music Manager
- Photo Manager

Windows

Internet Explorer
Outlook Express
Adobe Reader
MSN Instant Messenger (Microsoft only)
Windows Live Garbage
A number of other software programs, including:
- Paint
- DVD Player (if you hook up an external DVD drive)
- Media Player
- File Manager
- Webcam
- Calculator
- Text editor
Games:
- Solitaire
- Minesweeper
- Video Manager
- File Manager
- Webcam
- Calculator
- Screen Capture

Games:
- GBrainy
- Frozen Bubble
- Multiplication Puzzle
- GWeled
- Sudoku
- Potato Guy
- LinCity
- LMarbles
- SuperTux
Rapid Recovery

User System Changes

System and Programs

User Home Folder
the good news is, they're hyper-connected.
the bad news is, that's all they are.
Oh Crap. My Parents Joined Facebook.

CONGRATULATIONS! YOUR PARENTS JUST JOINED FACEBOOK. YOUR LIFE IS OFFICIALLY OVER.

So, you finally caved. You've accepted a friend request from your Mom, Dad, crazy Aunt Ida, and your college roommate's newly divorced mother. Well here's your chance to get back at them for taking away your public privacy.

Email us at: myparentsjoinedfacebook@gmail.com because we want to laugh at your Mom's ridiculous Facebook status and the embarrassing message your Dad wrote on your wall too! If you want your relative to remain anonymous include that in the email. Family. Can't Facebook with 'em, can't unFriend 'em!

This site is edited by Jeanne & Erika who love their parents dearly.

Steven is glad Cheryl's arthroscopy went well. She's tucked in with lots of pillows, ice, medications, and remotes.

Mom

"So, does this mean I don't have to call and see how Mom's doing?"
Demo was here... :)

Density Quiz 11/17

What is the effect of volume of a substance on the mass of the same substance?

Vocab
1. boiling point
2. melting point
3. freezing point

Drill Vol mass

D =
Changing the Game

- **Social**
  - Changes relationships between producers and consumers
  - Changes the way we view software
  - Culture of open collaboration
  - Unintended consequences

- **Technical**
  - Enables new technology use
  - Improved functionality through flexibility
  - Greater reliability creates more time for learning opportunities
Changing the Game

• Educational
  – Enables/boosts innovation
  – Facilitates pedagogic diversity and choice
  – Offers diversity in both context and provision of learning opportunities
  – Frees learning from grade level, age, classification
  – Student-centered, participatory learning
Learning Landscape of the Future

- Students and teachers using technology to create and share content in a collaborative way
- Refocus the emphasis of technology on teaching and learning
- Classroom-driven integration of content and learning resources
- New ways of learning
  - Literacy of information navigation
  - Experiential, project-based learning
  - Construction/creation through a diverse range of available resources and tools
Learning Landscape of the Future

Central Systems (student records, LDAP etc)
I never teach my pupils; I only attempt to provide conditions in which they can learn.

Albert Einstein
Thanks!
Twitter: @jnetman1
http://community.saugususd.org/jklein
Credits

- Small world:
  CC BY:NC http://www.flickr.com/photos/santheo/1874841
  CC BY http://www.flickr.com/photos/wwworks/2222523978
- OLPC: CC BY http://www.flickr.com/photos/olpc/2606362847
- Hyper Connected: C Hugh Mcleod
  http://www.gapingvoid.com/Moveable_Type/archives/004549.html
- Industrial school: CC BY http://www.flickr.com/photos/duchamp/117943548
- Network: CC BY http://www.flickr.com/photos/schoschie/217848140
- World share: CC BY:NC http://www.flickr.com/photos/cayusa/2051756510