

Open Technologies in the Education Enterprise

OPEN



A CoSN LEADERSHIP INITIATIVE



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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.

[Read more](#)

How can open technologies benefit K-12 schools?

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

The K-12 Open Tech Blog

- Freeconomics in Education
- Open Source at CUE/FETC Innovative Learning Conference '08
- Open Source at NECC
- Dean Millot's (Open Source) RFP of the Week

[more](#)

Open Tech News & Blog Feed

- [Home | Ubuntu Studio](#)

[more](#)







Nexus One Phone - Web meets phone. - Google Chrome

Zimbra: Inbox (1) Online learning study... Nexus One Phone - W... http://www.google.com/phone?utm_campaign=nexus-ha_sem-3&utm_medium=ha_sem&utm_source=en-ha_se

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<http://flickr.com/photos/mikz>

A photograph of a woman with long brown hair and a young boy with short brown hair sitting at a desk. They are both looking down at a laptop computer. The woman is wearing a dark turtleneck sweater. The boy is wearing a yellow hoodie. There are books and papers on the desk in front of them.

Open Technologies

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

http://

rss

iCalendar

A photograph of a woman with long brown hair and a young boy with dark hair sitting at a desk. They are both looking intently at a laptop screen. The woman is wearing a black turtleneck sweater. The boy is wearing a yellow hoodie. There are books and papers on the desk in front of them.

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

A photograph showing a woman with long brown hair and a young boy with short brown hair sitting at a desk. They are both looking intently at a laptop screen. The woman is wearing a dark turtleneck sweater. The boy is wearing a yellow hoodie. There are books and papers on the desk in front of them.

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

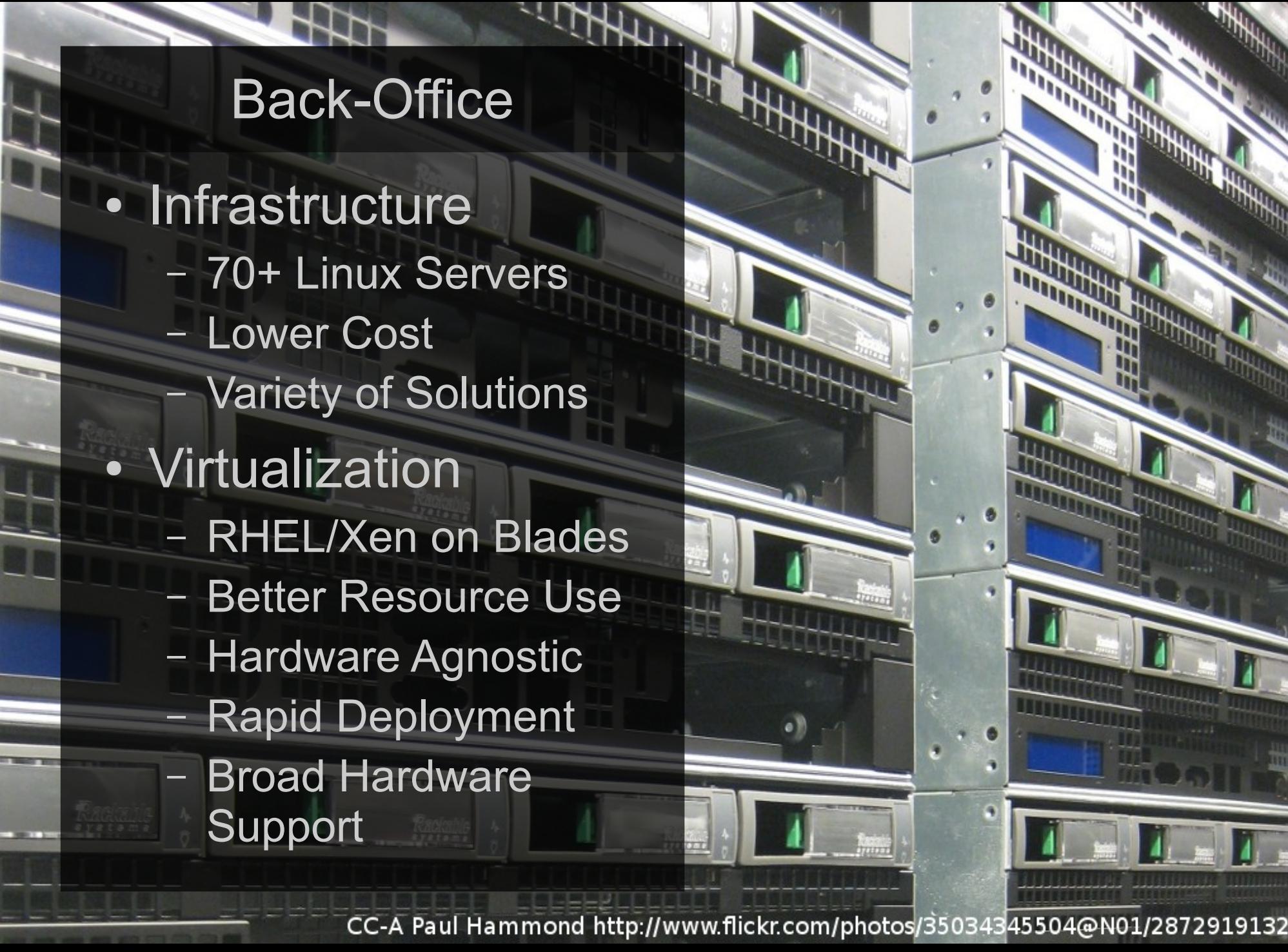
Security





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

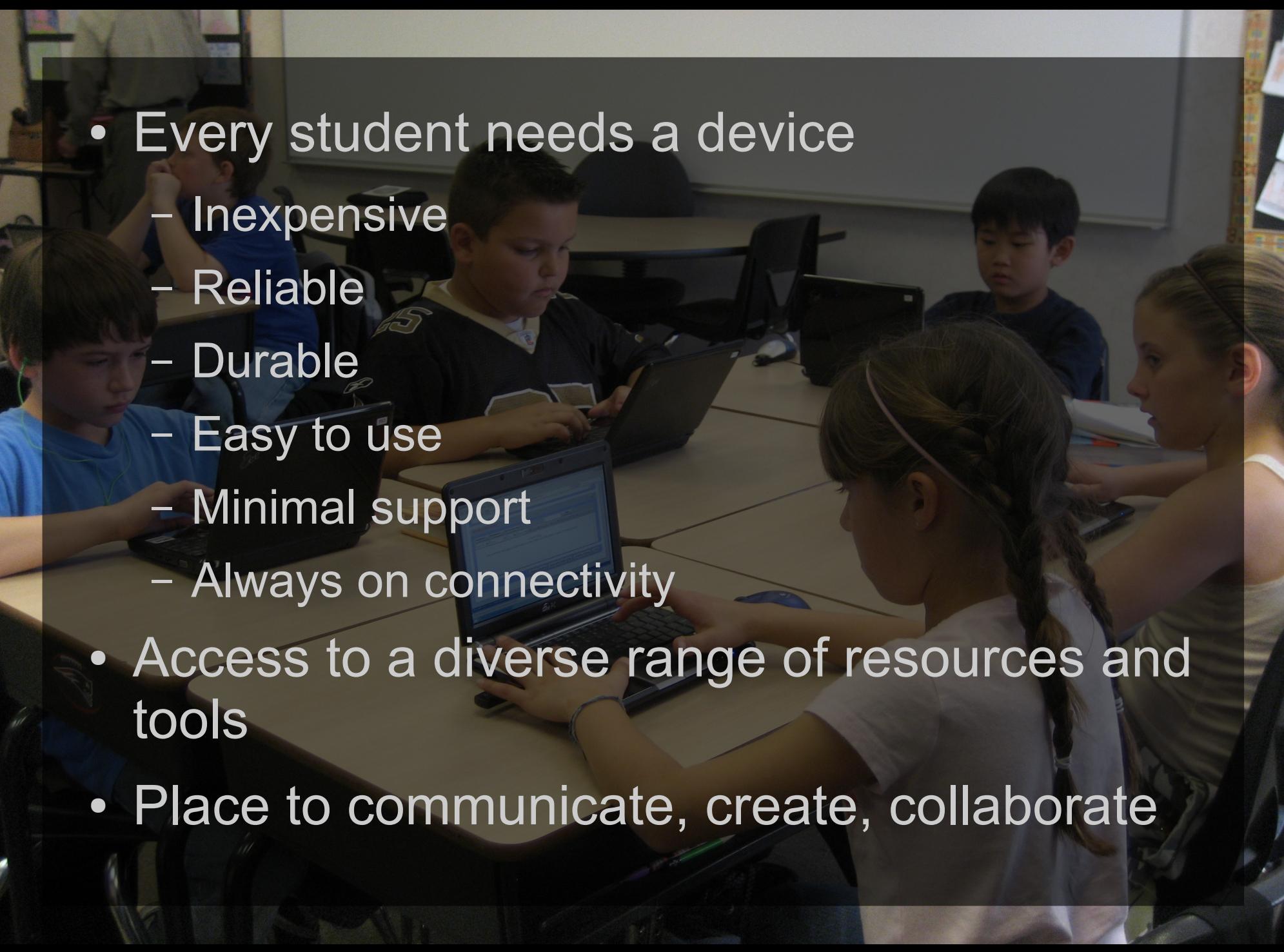
transform

trans•form

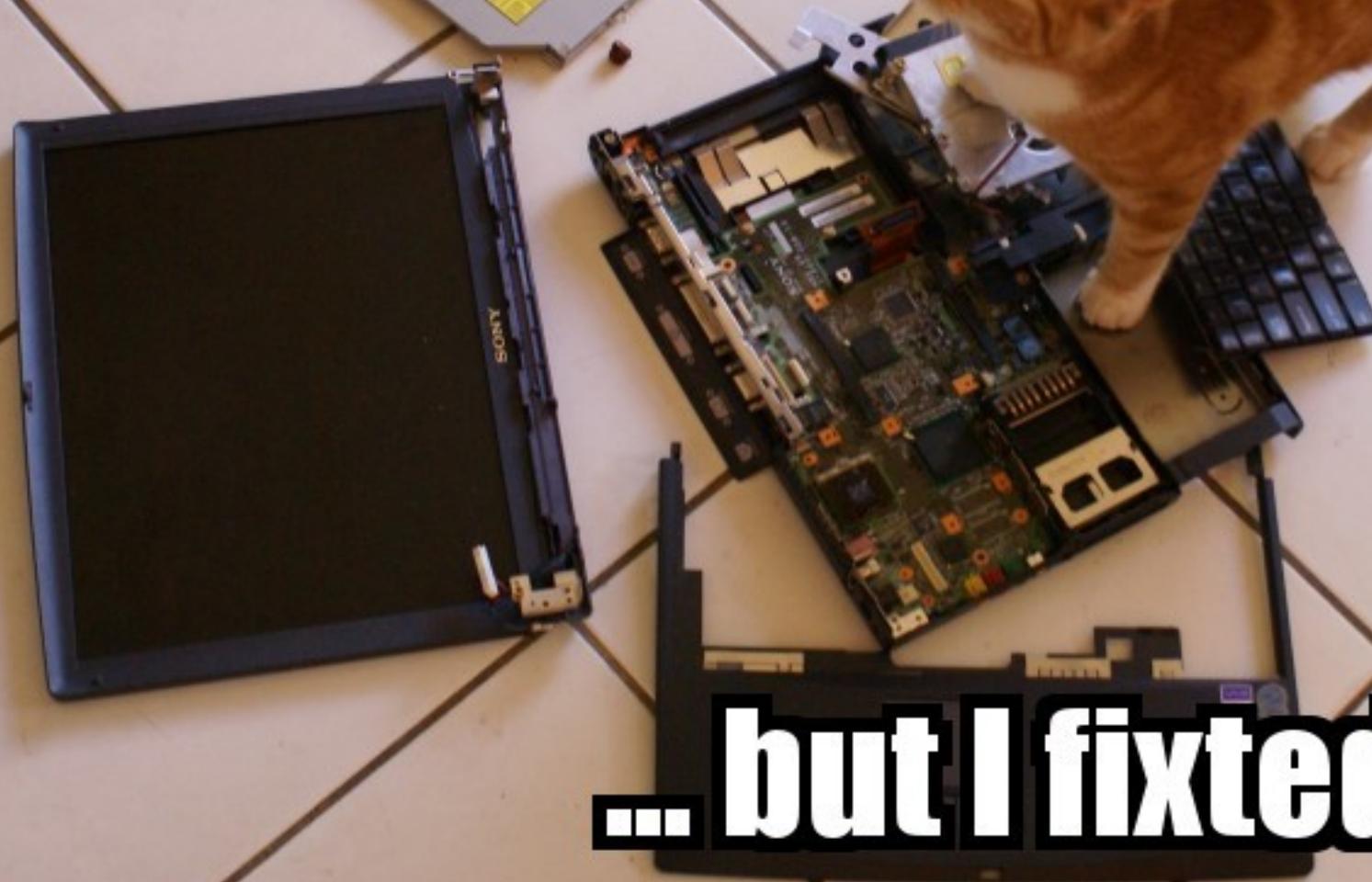
| trans'fôrm |

verb

make a thorough or dramatic change in
the form, appearance, or character of

- 
- A classroom scene showing several students at desks, each working on a laptop computer. They are focused on their screens, which display various applications and documents. The room has white walls and some educational posters visible in the background.
- 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 fixed it





Why Netbooks?

Extremely portable

Inexpensive

Durable

Reliable

Always on connectivity



A photograph of a woman with long brown hair and a young boy with short brown hair sitting at a desk. They are both looking down at a laptop computer. The woman is wearing a dark turtleneck sweater. The boy is wearing a yellow hoodie. There are books and papers on the desk in front of them.

Why Open Tech?

Reduced costs

Increased access

Flexibility & choice

Performance

Reliability

Security



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



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

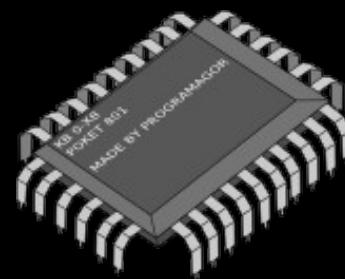
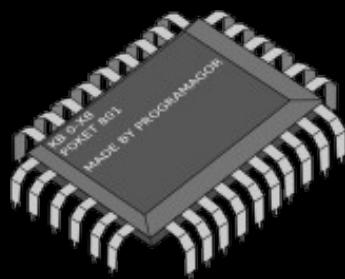
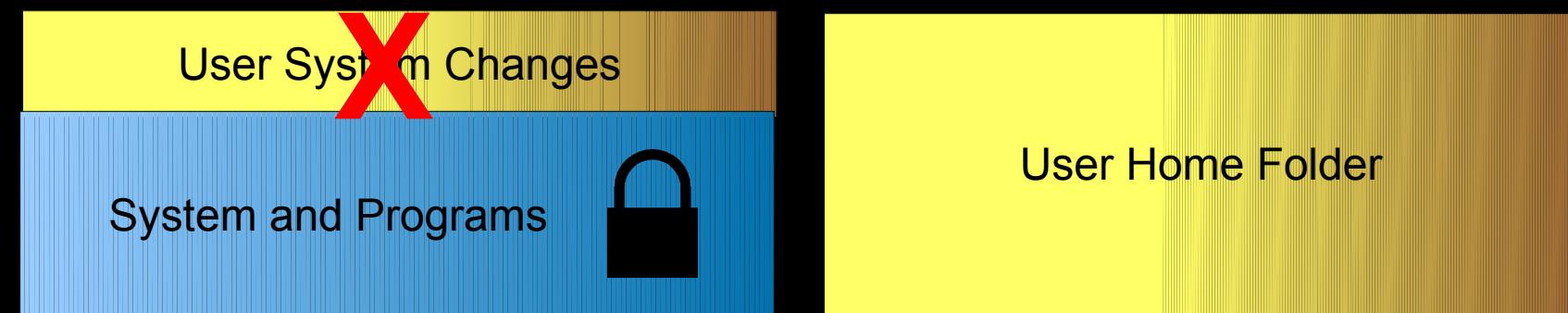


- Video Manager
- File Manager
- Webcam
- Calculator
- Screen Capture

Games:

- GBrainy
- Frozen Bubble
- Multiplication Puzzle
- GWeled
- Sudoku,
- Potato Guy
- LinCity
- LMarbles
- SuperTux

UnionFS



Rapid Recovery

ITALC 1.0.9



Support Auto view

Steven (DeVore)

Natalie (DeVore)

Ashlyn (DeVore)

Caryn (DeVore)

Amanda (DeVore)

Gaspare (DeVore)

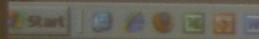
Serena (DeVore)

Cole P. (DeVore)

Kayla (DeVore)

Lauren (DeVore)

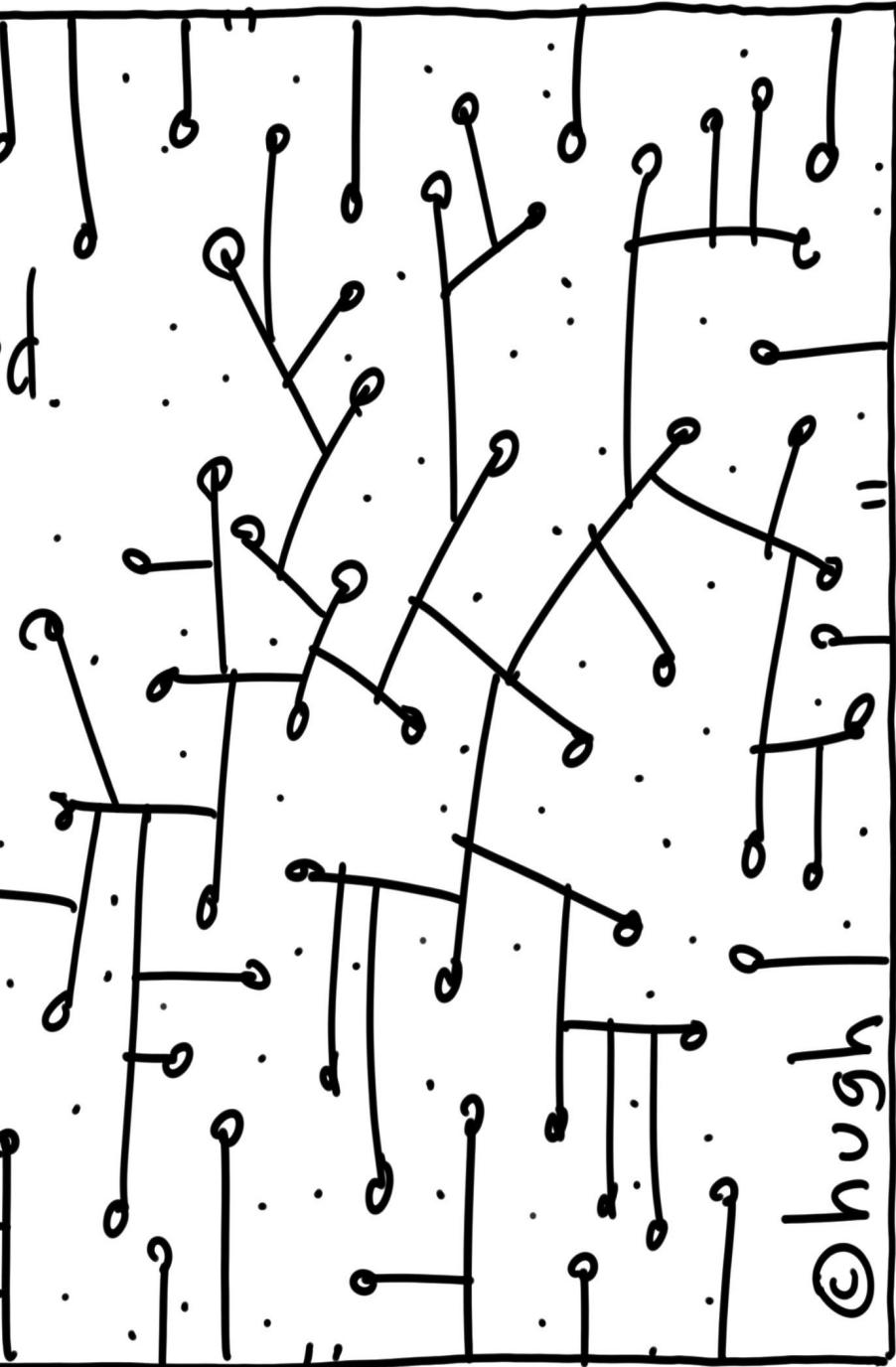
ITALC 1.0.9



ITALC 1.0.9

11:10 AM

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.

[rss](#) | [mobile](#)

Wednesday | March 11, 2009 | 2:03 pm

Dad → Steven is glad Cheryl's arthroscopy went well. She's tucked in with lots of pillows, ice, medications, and remotes. 1:23pm · Comment · Like

Mom

"So, does this mean I don't have to call and see how Mom's doing?"

Demo was here... :)



arvest
for hungry
work -

DENSITY

QUIZ 11/17

complete Density Doings.

Study

$$\frac{1}{25}$$

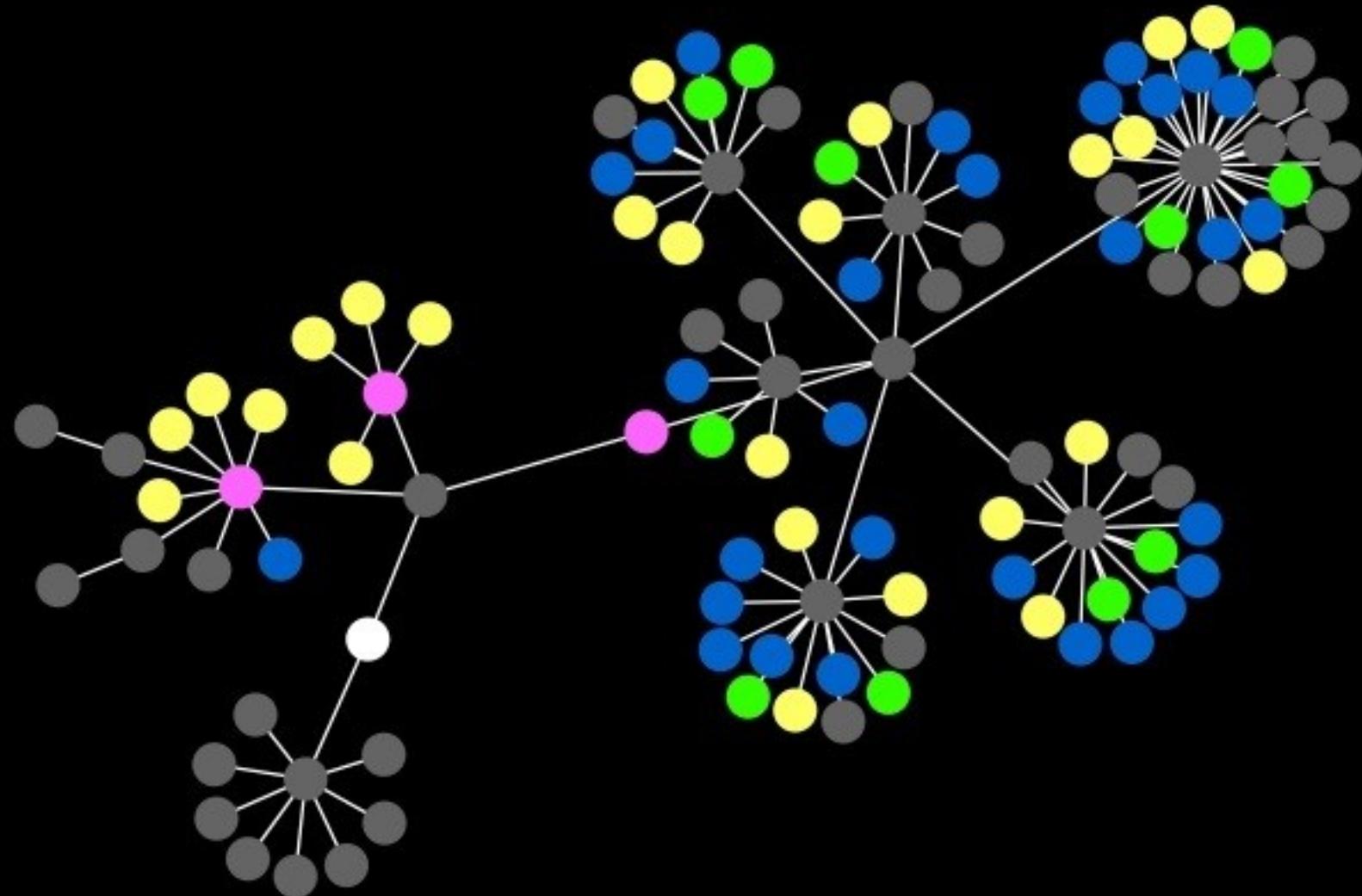
What is the effect of
Volume of the Substance
on the mass of the same substance?

Vocab

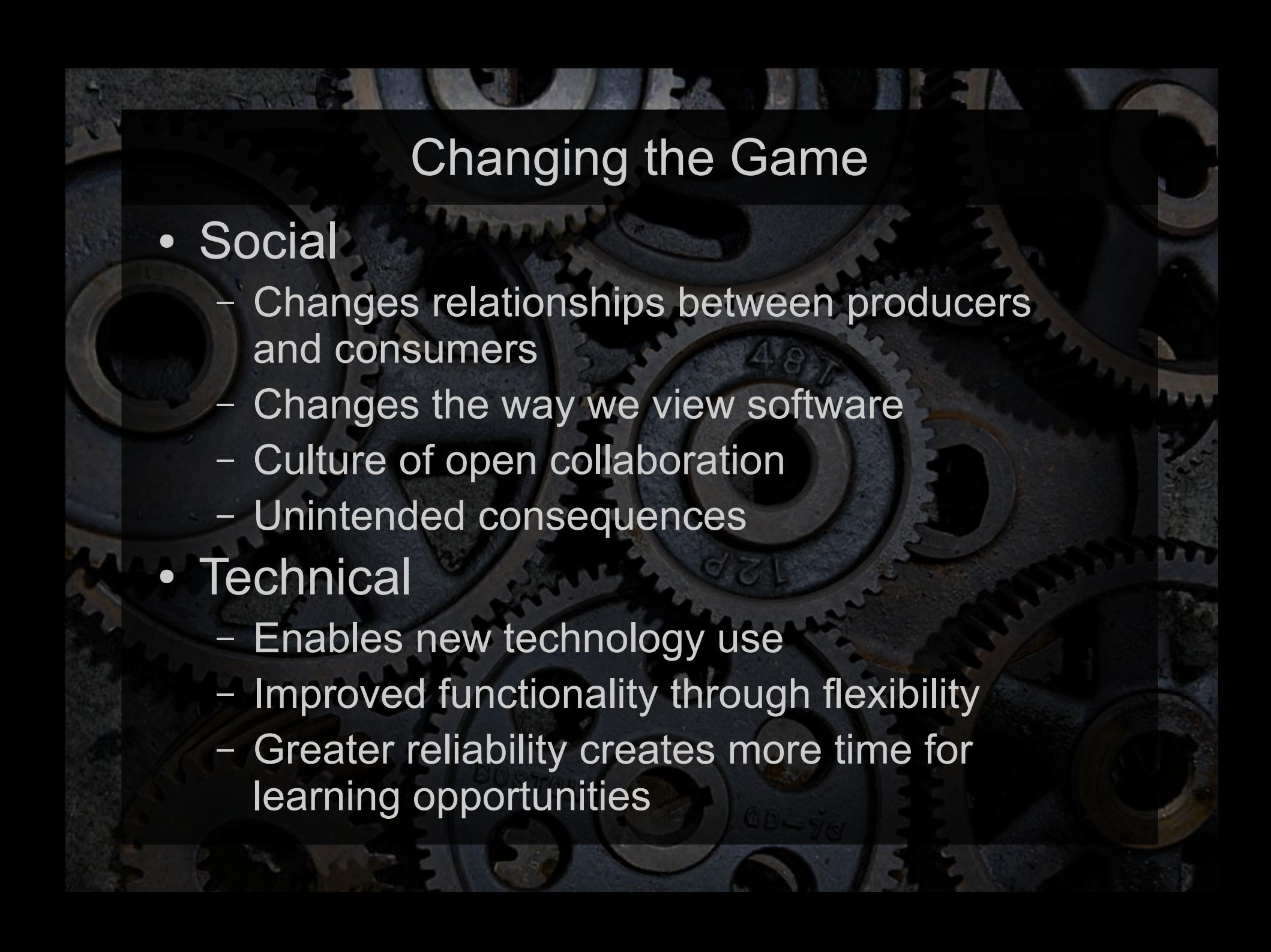
1. Boiling
2. Melting
3. freezing

Point
Point
Point

Drill
Vol
ma
D=







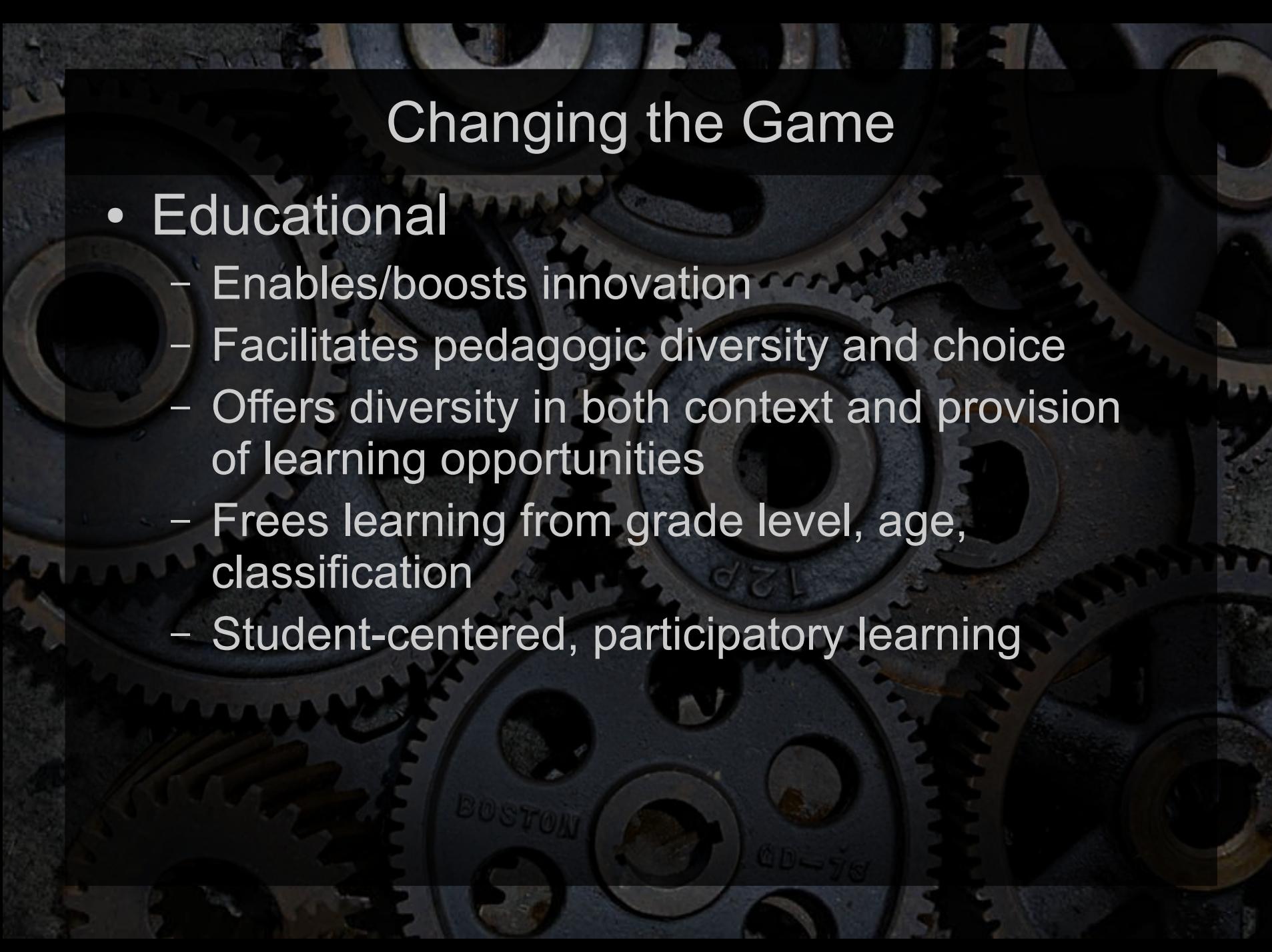
Changing the Game

- Social

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

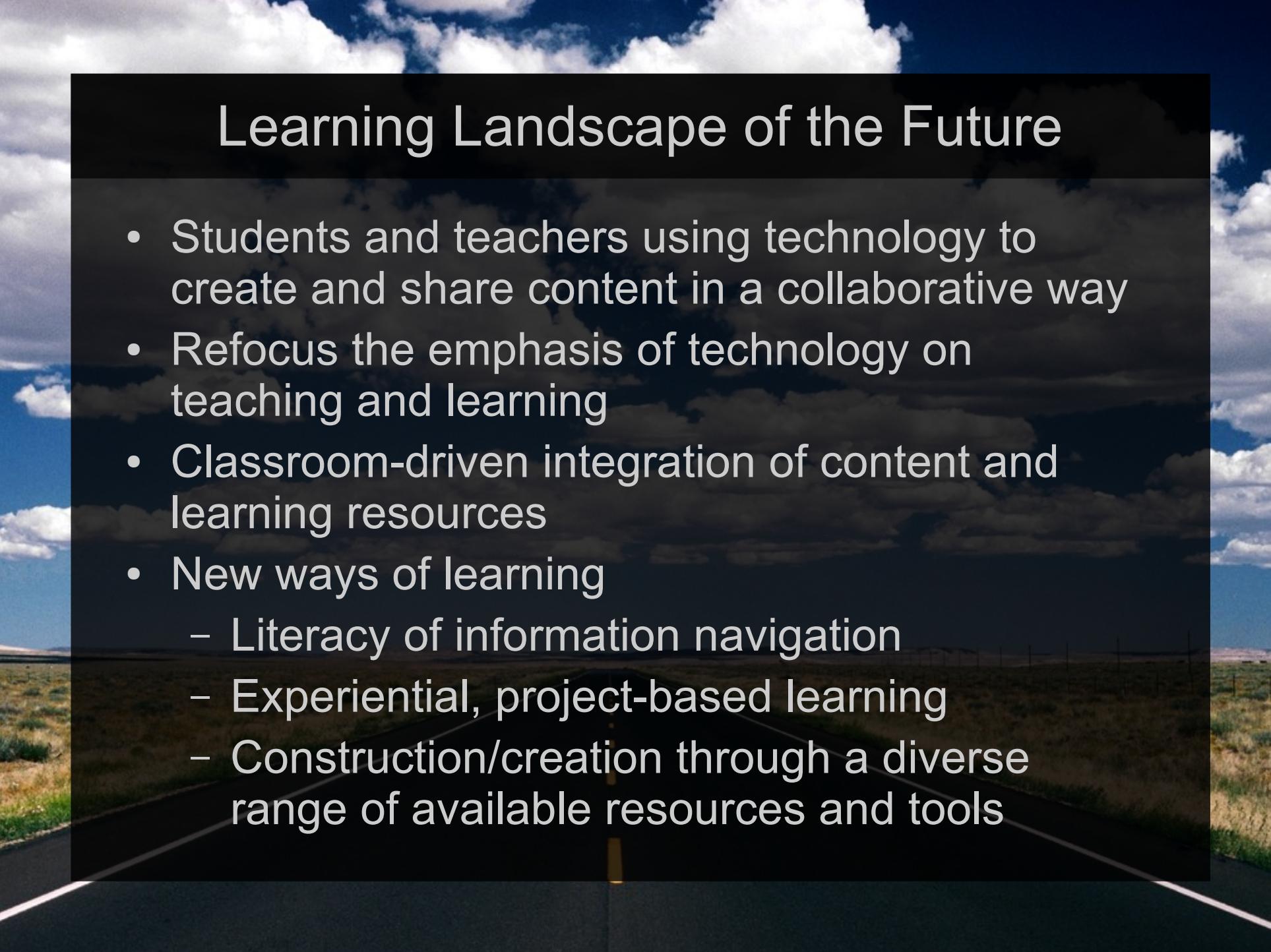
- Technical

- Enables new technology use
- Improved functionality through flexibility
- Greater reliability creates more time for learning opportunities



Changing the Game

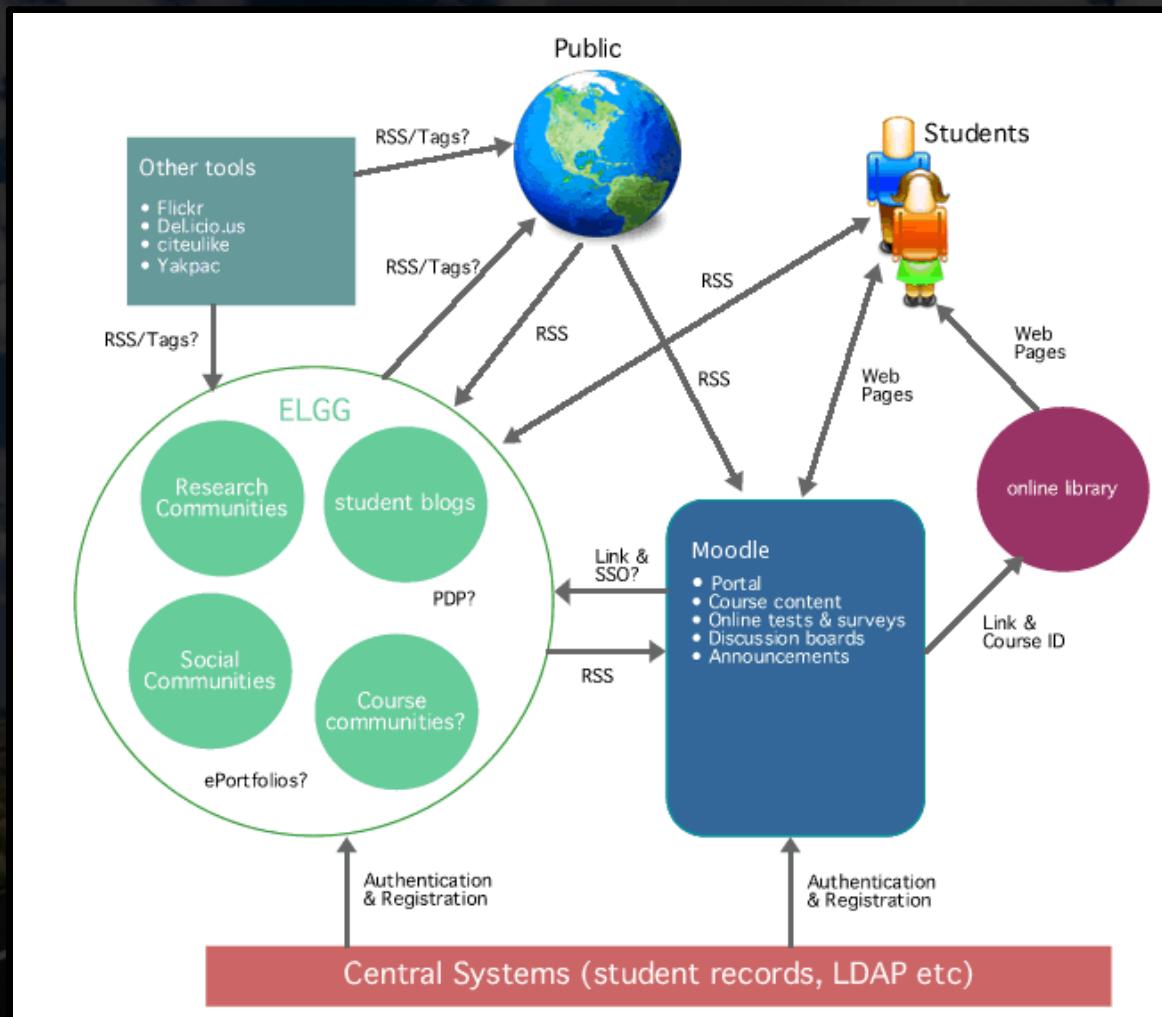
- Educational
 - Enables/boosts innovation
 - Facilitates pedagogic diversity and choice
 - Offers diversity in both context and provision of learning opportunities
 - Frees learning from grade level, age, classification
 - Student-centered, participatory learning



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





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

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- Penguins in car: CC BY:NC:ND <http://flickr.com/photos/mikz/348849931>
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