

# CoSN CONFERENCE 2015

Enabling Your Digital Leap

Atlanta, Georgia

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# Erate 2.0: What's it all about

- Raised Cap from \$2.4 billion to \$3.9 billion
- Overview of Erate program
  - Erate is the only federal funding available for Education Technology
- Practical Implications
  - Telephone Service decreased 20% until it is zero in 5 years

# Erate 2.0 Practical Implications (Cont'd)

- Erate \$ data collection and data entry is up 100%
  - More granular data required on applications
  - Complex cost allocations
- USAC Website is not fully tested, changing
- New discount rate calculations
- FY 2015 Deadline Extension Reasons
  - Vendor Process takes longer
  - Spring break and other scheduling deadlines
  - More time needed to gather all the info

# Erate 2.0 Practical Implications (Cont'd)

- \$ available for WiFi projects
  - Funding limited on site-by-site basis
  - \$150/student x discount rate x enrollment
  - Questions remain about annexes, new sites
  - Same discount rate for all sites w/in District
- Form 470 waived for cheap Internet
- High speed WAN and Internet \$ still available
- Confirm new school district discount rate
- Estimate budget caps and plan projects
- Start RFP process this week, if needed
- Start Form 471 funding application now

# Erate 2.0 Practical Implications (Cont'd)

- Policy Ideas- Alignment
  - SETDA's recommendation for Internet access for schools of at least 100 MBPS per 1,000 students and staff in the short term and 1GBPS Internet access per 1,000 users in the longer term
  - Align Local connectivity goals with the FCC Benchmarks or exceed them.
  - 2016 program offers additional category one funding, up to 10%, to match state funding for special construction charges for High-Speed broadband connections

# Erate 2.0 Practical Implications (Cont'd)

- The FCC recently created two maps that allow users to view access by state/district
- Let your superintendent know that phone reimbursements are being eliminated
- Shifting of funds (more internal connections vs. less voice)
- Consortia applications are improving
- Disincentives for Consortia applications are being removed
- Sparsely populated rural communities have unique challenges to get access to High Speed Broadband
- Schools can out-source the IT LAN Structure (managed broadband)

# Security (iKeepSafe)

- Using privacy as a weapon against Common Core, Consortium Assessments, etc...
- California passed a security/privacy law that is viewed as a model
- Address potential backlash
  - Tools (free curriculum)
  - Technology (launching in Spring) FERPA compliant products (Certification)
    - Identify Privacy compliant products

# Security (iKeepSafe) Cont'd

- Getting schools prepared to be proactive with parents
  - What you are doing with new technologies to protect privacy
  - Why are we using technology to help kids learn
  - Identify the upside of using products
  - We have done a bad job of telling parents the upside of new technologies, selling the benefits of using technology

# Security (iKeepSafe) Cont'd

- “Data is the new Bacon” – Do a Google Search on this
- Build policies in our schools and engage staff in using technology safely

# Security (iKeepSafe) Cont'd

- Make sure parents know why we are doing this in the first place
  - Get out front with parents by letting them know what technologies are being used and communicating to parents why
  - Who is the point person in the district for establishing privacy policies and who assists?
    - Legal
    - Technology Director
    - Curriculum
    - Library Media
    - Provide a set of rules for teachers about what apps they can use
    - Teachers are adopting free apps that use data and create a potential headache

# Security (iKeepSafe) Cont'd

- There needs to be a set of rules and guidelines that need to be created, disseminated, monitored, and held accountable
- How does this get communicated to staff- get them together in a committee format so that they have buy-in (create school-based committees that follow a process defined in a training video)
- Educate teachers what data is being collected from APPS because they don't see the downside
- iKeepSafe will re-badge the Apps annually

# Security (iKeepSafe) Cont'd

- Common Sense media (another Security Badging System)
- Google Search the NY Education Chancellor's Parent Bill of Rights for Student Privacy
- Google Search the California legislation on SOPIPA, Student Online Personal Information Protection Act

# Learning Management Systems: Guide to Selection, Professional Learning, and Implementation

- Evaluation, Selection & Implementation Strategies
  - LMS = Launch, track, report on completion of Learning Objects
  - What designates a learning object? A report?
  - Who are your learners? How do they engage in learning and complete their learning activities?
  - What are the Instructional Goals and Learning Objectives?
  - What types of learning activities are necessary in the LMS?
  - What pedagogy your teachers/faculty will use to deliver online and blended (Hybrid) courses.

# Learning Management Systems Cont'd

- The choice of and LMS is not an Information Technology (IT) decision only.
  - LMS is software but it should not be an IT decision
  - Involve all stakeholders in the decision-making process
    - Administrators
    - Teachers
    - Instructors
    - Students
    - IT staff
    - Parents
  - Product Vetting
    - Analyze Needs
    - Define Goals & Objectives
    - Vet Available Products
    - Evaluate products
    - Select a Product

# Learning Management Systems Cont'd

- Product Evaluation Steps
  - RFI
  - Vendor Demonstration
  - Trial Version or Sandbox (Push for a sandbox environment)
  - Customer References (go to a district and talk to them)
  - Financial health
  - RFP
- N.B. backup current content and load into the new system
- LMS Selection Tools and Resources
  - COSN tool

# Learning Management Systems Cont'd

- Purchased or Open-Source
  - Cost
  - Reliability
  - Scalability
  - Security
    - Update to OS
    - Updates to LMS software
    - Hardware and Software Firewalls
    - Malware Antivirus Detection
    - Disaster Recovery
  - Internet Access
  - Administrators
  - Self-hosting Cost for Medium-Size Organization

# Learning Management Systems Cont'd

- Free Sites
  - Moodle
  - Course Sites by Blackboard free site (5 courses per teacher) fully functional
  - Schoology
  - Sakai
  - Latitude Learning
  - Dokeos
  - eFront
  - Schoology
  - Ilias
  - GoDaddy has a button Moodle activation

# Learning Management Systems Cont'd

- Require Publishers to provide an LMS component
- Governance
  - Who will do what, by when, and for whom
  - Who can load courseware
  - If remote access is in place and there is a problem at 10pm, do we respond

## □ Professional Development

- Role Based
- Ongoing
- Focus on analyzing and using data
- Feedback mechanism to monitor and adjust

# Learning Management Systems Cont'd

- Training and Professional Development is an investment in time and money
  - Use the new knowledge right away
  - Secure commitment from district leadership
  - Budget for ongoing training costs
  - Provide substitutes
  - Provide staff to do On-Demand training
  - Roles
    - Instructional Technology Team
    - Online Learning Team
    - IT Department
    - District Curriculum Department
    - School Administrators
    - Department heads
    - Teachers (Elementary, Middle, High)
    - Students

# Learning Management Systems Cont'd

- Levels: Beginner, Intermediate, Advance, Subject Specific
  - Methods; Face-to-face, Small Group, Coaching
  - [www.educause.edu/ecar](http://www.educause.edu/ecar)
  - [www.learningsolutionsmag.com/articles/1181/five-steps-to-evaluate-and-select-an-lms-proven-practices](http://www.learningsolutionsmag.com/articles/1181/five-steps-to-evaluate-and-select-an-lms-proven-practices)
  - [www.turningdataintoaction.org/content/guide-professional-development-training-planning](http://www.turningdataintoaction.org/content/guide-professional-development-training-planning)
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- Schoology includes social networking

# Global Trends Around Technology in Education

- Questions to Explore...
  - What are, in your view, the Global tech trends in Education?
    - Student learning outcomes – impact of technologies (standardized test scores, looking at processes as well as impact of technologies)
    - Technology & Policy Frameworks (2013 learning and Technology Policy Frameworks –Alberta, Canada)
    - Student-Centered Learning Approach
    - Mooks (How do you build a community of practitioners, not just content?) President Obama approved the Mook Course as a PD for US Teachers.
    - Self –Learning analytics (MicroAnalytics.) It needs to be measurable
    - Using EEG measures to identify attention
    - Collaboration – Communities; Analytics; Personalized Learning (Change ownership from teacher to student-driven); Production of Content
    - Mobile devices can be a great leveler (Globally)

# Global Trends Around Technology in Education

- The real challenge will be teachers
- Access to devices (mobile)
- How does Cambodia provide Access to Internet?
- Better use of Technologies in the Classrooms
- Public/Private Partnerships to ensure win-win situations to schools and private companies  
(N.B. look for the report on Portugal's project)
- How these trends can help to improve Access to Education?
- How can these Trends help to improve the Quality of Education?
  - Lack of quality education – How to use the Technology to improve Education?
  - Making students responsible for their learning using technology tools  
Like “harvesting big Data” integrated with Content triggered by Wearable devices (Smart IDs, Mobile Devices, etc..) to provide Personalized Learning Plans that can go through analytics (Talk about – Yelp for content)

# Global Trends Around Technology in Education Cont'd

- Assessment tool called CLASS –
  - Creating a context emotionally supportive of learning
  - Organization of space
  - Instructional supports that deepen learning, feedback loops
  - Use technology to talk about pedagogy
  - Technology can be used to connect to pedagogy
  - Teachers coming out of Higher Ed are not qualified
  - Change the classroom and get rid of the library
  - 60% of the jobs in the future do not yet exist
  - We are using archaic approaches to prepare future teachers
  - Rethink What we teach – Are we developing the social and emotional skills? New social society with new social skills (we old guys need to pass the baton)
  - We keep talk about “we” manage their learning as opposed to students owning and managing their learning How do they plan their own learning trajectory to prepare for the new workplace

# Global Trends Around Technology in Education Cont'd

- What is the role of Scientific, Artistic, and Sportive Technologies in an ICT Enabled Education?
- Are “Wearables” the new challenge to Education?
- What is your vision about the “Internet of Things” in Education?
- What about “Big Data”?

# Social Media as Professional Development

- Use of Twitter Chat devoted to Ed Tech (Weekly PodCast)
- We need to model safe tweeting, promote yourself and what is being done on Social Media
- Social media Definition: Platforms, Jimmy Fallon Justin Timberlake YouTube hashtag (What it is not) #hashtag
- Do it from a professional manner (hashtag is gateway drug)
- There is a hashtag for any topic (#gafe = Google Apps for Education)
- Why Social Media? I spend most of my time trying to block it!
- We need to get past the fear of social media. It is a tool that can be used for good or for bad.
- Twitter -> not for under 13 years old
- Youtube, Soundcloud
- Model appropriate professional social media, develop appropriate policies
- Framework for skills for CTO (COSN) – you are creating a brand
- If you are not the person putting the message out there, someone else is putting it out there

# Social Media as Professional Development Cont'd

- Basics
  - Leadership & Vision
  - Understanding the Educational Environment
  - Managing Technology & Support Resources
- Information Technology Management
- Communication Systems Management
- Online Documents, YouTube Channel, PDF/Resources, TwitterFeed #Hashtag
- Look at Alex's Summary of the COSN Conference
- Interact with Intelligent People – The smartest person in the room is the room
- (song “ Megan trainer's All About that Bass” change lyrics – It's not about the tech, bout the tech, just learnin')

# Social Media as Professional Development Cont'd

- Twitter management
  - Create “safe” search
  - Twitter Lists
  - Do a search for other management tools (Twitter wall, twitter fall)
  - Don't just use the twitter app (Tweet Deck)
  - Local Chat = NJED
  - EdTEch Chat Moderators
  - CETL
  - Tweechme (app)
  - Cybraryman

# Social Media as Professional Development Cont'd

- Official education chat list (do a google search)
- Tags Archive (uses twitter api)
- Storify
- Tags.hawksey.info
- Look for twitter api information
- (Are you using a WordPress Website? Or some other tool)
- NJ Law – School Sponsored Twitter account that the school can monitor – to allow only district sponsored Let teachers have access – not students. Once they have access – Professional Development
- Teach group in room, log into create an account, etc...  
Archive, permission, access, TEACHERS FIRST

# Social Media as Professional Development Cont'd

- Change policies only for Teachers (allowed friending only their children)
- COSN has a great resource re-writing Social Media policies
- Legal team review
- Distinguish between personal and professional
- Be flexible – Don't make it the wild, wild west – also do not lock it down
- Develop your digital footprint, craft your professional image online
- Digital citizenship (#digcit) chat
- Stay connected to your customers – remember who we serve
- Build a USE Case - Encourage our teachers to be 21<sup>st</sup> century leaders, not 20<sup>th</sup> century followers

# Highlights

- 1:1 from the IT lens: What does support look like?
- Technology Integration Matrix (TIM)
- FAILFEST - Six CoSN members took turns to identify their biggest failure of the year within 5 minutes.

# Highlights

- Release of new NMC Horizon Report
  - One Year or Less
    - Bring Your Own Device (BYOD)
    - Cloud Computing
    - Makerspaces
    - Mobile Learning
  - Two to Three Years
    - 3D Printing/Rapid Prototyping
    - Adaptive Learning Technologies
    - Information Visualization
    - Learning Analytics

# Highlights

- Release of new NMC Horizon Report (Cont'd)
  - Four to Five Years
    - Badges/Microcredit
    - Drones
    - Visual Data Analysis
    - Wearable Technology

# Highlights

- Enabling Technologies
  - Affective Computing
  - Cellular Networks
  - Electrovibration
  - Flexible Displays
  - Geolocation
  - Location-Based Services
  - Machine Learning

# Enabling Technologies (Cont'd)

- Mobile Broadband
- Natural User Interfaces
- Near Field Communications
- Next-Generation Batteries
- Open Hardware
- Speech-to-Speech
- Virtual Assistants
- Wireless Power

# Internet technology

- Cloud Computing
- Internet of Things
- Real-Time Translation
- Semantic applications
- Single Sign-on
- RSS

# Social media Technologies

- Collaborative Technologies
- Crowd Funding
- Digital Identity
- Crowd Sourcing
- Tacit Intelligence
- Collective intelligence
- Social Graph

# Consumer Technologies

- 3D Video
- Drones
- Tablet Computing
- Telepresence
- Quantified Self

# Digital Strategies

- BYOD
- Digital Preservation
- Flipped Classroom
- Gamification

# Education Data and Student Privacy – The Trust Imperative

- Audience Input of Topics
- Google Opt-In/Opt-Out
- Educating Students and Parents about privacy issues
- Pearson “Spying” on Social media comments about PARCC [Social media Monitoring]

# Education Data and Student Privacy – The Trust Imperative Cont'd

- The Future of Privacy Forum (Jules Polonetsky and Christopher Wolf)
- FERPA/Sherpa website  
([FERPA/SHERPA.com](http://FERPA/SHERPA.com))
- Student Privacy Pledge
- Boot Camps for Startups
- PTA –Parents guide to Privacy
- Sector Specific – FERPA, PPRA, COPPA,  
....., FCRA, GLBA, HIPAA

# Education Data and Student Privacy – The Trust Imperative Cont'd

- HIPAA - Entities subject to the HIPAA are covered entities
- Health Care Providers
- Covered Transactions
- The HIPAA Privacy Rules
- Fair Information Practice Principles (FIPPS) –The GOLD STANDARD
- Transparency
- Individual Participation
- Purpose Specification
- Data Minimization
- Use Limitation
- Data Quality and Integrity
- Security
- Accountability and Auditing

# Education Data and Student Privacy – The Trust Imperative Cont'd

- FERPA – Family Education Rights & Privacy Act (Overview)
- Video of the FERPA From the PTAC Website
- PII
- Directory Information
- Vendors, Online-Service Providers
  - School Officials Exemption
    - An institutional service or function for which the school System would otherwise use its own employees
    - Provider has a legitimate educational interest in the education records
    - Under the direct control of the School System with regard to the use and maintenance of education records
    - Except for de-identified metadata, the provider can only use the records for the purpose specified

# Education Data and Student Privacy – The Trust Imperative Cont'd

- Children's Online Privacy Protection Act (COPPA) –  
Overview
  - [ $\leq 13$  only. Does not include HS students]
  - Requirements
- Prominent Notice to parents about data collection and use – notice and consent
- Verifiable parental consent before collecting, using or disclosing child's information
- Provide parents with means to review and request to delete their child's data
- Data minimization – only what's needed for features and functionality

# Education Data and Student Privacy – The Trust Imperative Cont'd

- Retain only as long as necessary
  - Consequences
    - Monetary Fines
    - Deletion of Data
    - Consumer Education
    - Compliance training and audits
    - Public relations and consumer trust
- What is Personal Information
  - Information that can be used to identify a specific child
    - First and Last Name
    - ....
  - Persistent Identifiers
    - Information used to recognize a user over time, across different sites and services
      - No behavior targeting
    - Not personal information when used in support of specific internal operations

# Education Data and Student Privacy – The Trust Imperative Cont'd

- Behavioral Targeting
- Do you know what this is? (Traingle i)
- Verifiable Parent Consent
- To ensure the consent from the parent:
  - Signed form (mail, fax, or scan)
- Online Payment transaction
- Knowledge-based identification
- Toll-free phone number
- Video conference
- Government-issued ID
- E-mail Plus (restrictions on data use with this)

# Education Data and Student Privacy – The Trust Imperative Cont'd

- Exceptions for one-time use, opt-outs, or public posts
- Consent from Schools in Lieu of Parents
- Limited to educational purposes for data; not other commercial purposes
- Parental consent still required if operator will use or disclose
- With a contract, operator may presume the school has obtained consent from parents
- Data Handling and Security
- Reasonable Security, Retention, and Deletion
- Pitfalls
- Best Practices

# Education Data and Student Privacy – The Trust Imperative Cont'd

- Landscape of Privacy Concerns
- Information and technology are changing too fast to keep up
- What data is being collected
- Who is collecting, and who has access, and what uses are being made
- What role are outside vendors playing
- The “Cloud”
- Confusion with other education reform efforts

# Education Data and Student Privacy – The Trust Imperative Cont'd

- Check the Data Quality Campaign for the Legislative Activity in the States:2014 map (beyond FERPA)
- SOPIPA

# Education Data and Student Privacy – The Trust Imperative Cont'd

- Key Terms for Contracts
- Scope and Purpose
- Clear Description of Data Collection, use, and transmission
- Data Ownership – means for access and correction requests
- Notification of Changes – no unilateral modification
- Bankruptcy or Acquisition

# Education Data and Student Privacy – The Trust Imperative Cont'd

- Security requirements
  - Collection
  - Access
  - FERPA/SHERPA
  - Use Ghostery to scan tracking cookies used by a site

# Education Data and Student Privacy – The Trust Imperative Cont'd

- Validating use of technology
  - Data tagging
  - Inventory systems
  - Tracking Apps
  - What's needed to make things work
- Edelman Trust Barometer
-

# Education Data and Student Privacy – The Trust Imperative Cont'd

- 10 Steps Every School Should Take
- Designate a Privacy Official
- Seek Legal Counsel
- Know the Laws
- Adopt School Community Norms & Policies
- Implement Workable Processes
- Leverage Procurement
- Provide Training
- Inform Parents
- Make Security a Priority
- Review and Adjust

# Education Data and Student Privacy – The Trust Imperative Cont'd

- COSN toolkit
- Protected Privacy in Connected Learning (A COSN Initiative)
- Supported by Microsoft, Lightspeed Systems, SchoolWires, and McGraw Hill
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- Suggested Contract Terms
- <http://Ptac.ed.gov>
- [www.k12blueprint.com/privacy](http://www.k12blueprint.com/privacy)
- [www.cosn.org/privacy](http://www.cosn.org/privacy)

# CoSN's Certified Education Technology Leader (CETL) Certification Program

- Framework of Essential Skills of the K-12 CTO
  - Leadership & Vision
  - Understanding the Educational Environment
  - Managing Technology & Support resources
- There are two parts to the exam:
  - Part 1 is multiple-choice Internet-Based Testing (IBT) in a proctored environment
  - Part 2 is an IBT system essay that needs to be completed within 7 days

# Transition to the Role of 21<sup>st</sup> Century District Education Technology Leader

- The Evolving role of the K-12 CTO
- 21<sup>st</sup> century Learning Environments
- Change Process Management
- Education Funding & Public School Budgeting
- Privacy & Security of th Learning Environment
- Meaningful Professional Development
- Curriculum Standards & Best Practices
- Data-Driven Decision Making for Continuous Improvement & Increased Student Achievement

# Network Essentials for Superintendents

- Overview of typical school district network
- District Core Equipment
- School local area network
- Planning network upgrades based upon supporting learning goals
- Bandwidth requirements/guidelines
- Impact of online assessments
- Planning for bandwidth purchasing
- Options for managing the network

# Overview of the Conference Environment

- COSN15 Mobile App
- Social Media
- COSN Camp
- Partners – Big Deal Media, EDTECH, Education SuperHighway, JDL Horizons, the Journal, Tech & Learning, ....
- Vendors – Dell, Amplify, Cisco, Google, Sprint, Verizon, Microsoft, IBM, Intel Education, School Dude, School messenger, Houghton Mifflin

# Keynote: The Power of Distributed Leadership for Digital Conversion

- Empowering building-based administrators, grade-level/subject leaders
- Prepare central office administrators for classroom level risk-taking and changes to expected sequences of content

# Online Resources/White Papers

## ■ Privacy

- in the Cloud
- with 3<sup>rd</sup> Party vendors & online service providers
- in-age-of no privacy
- with online Service Providers
- mobile devices

# Online Resources/White Papers Cont'd

## ■ Privacy

- 10 data security steps every school district should take today
- security planning rubric

## ■ CIPA 101 (Children's Internet Protection Act)

## ■ BYOD-COPPA (Children's Online Privacy Protection Act)