Board Advanced Technology Committee

Presentation to District 64
Board of Education
April 8, 2013

Committee Members

Co-Facilitators:
❖ Dr. Phil Bender, Superintendent
❖ Dr. Terri Bresnahan, Director of Technology

District 64 Staff:
❖ Allison Blum, Technologist (RO)
❖ Gini Burns, Teacher (EM)
❖ Sue Herman, Technologist (LI)
❖ Dr. Lori Hinton, Assistant Superintendent for Student Learning
❖ Franny Keyes, Teacher (LI)
❖ Jason Mata, Teacher (FI)
❖ Barbie Murphy, Speech Language (JE)
❖ Dr. Tony Murray, Principal (LI)
❖ Caroline Schaab, Instructional Technology Coach (RO)
❖ Nancy Sweeney, Teacher (FR)
❖ Jon Urbanski, Manager of Technology
❖ Amanda Walsh, Instructional Technology Coach (LI)
❖ Dan Walsh, Principal (FR)

Community Members:
❖ Scott Altman, Parent (WA, LI)
❖ Bill Basquin, Parent (JE, RO)
❖ Paul Brown, Parent (CA)
❖ Carrie De La Cruz, Parent (FR)
❖ Sara Greiner-Carolan, Parent (FR)
❖ Kendra Griffin, Parent (LI)
❖ Dave Iffland, Parent (FI, EM)
❖ David Langlands, Parent (RO)
❖ Paul McCarthy, Parent (WA)
❖ Doug Miller, Parent (CA)
❖ Janice Oliva, Parent (WA)
❖ Tony Sivore, Parent (FI, EM)
❖ Nancy Zver, Teacher (Mary, Seat of Wisdom)

Liaisons:
❖ Hank Thiele, Chief Technology Officer Maine 207
❖ Bernadette Tramm, District 64 Public Information Coordinator
❖ Scott Zimmerman, District 64 Board of Education Vice President

21st Century Learning & the Common Core State Standards

The current and future health of America's 21st century economy depends directly on how broadly and deeply Americans reach a new level of literacy - "21st Century Literacy" - that includes strong academic skills, thinking, reasoning, teamwork skills, and proficiency in using technology.

Source: 21st Century Workforce Commission National Alliance of Business

21st Century Learning & the Common Core State Standards

❖ Alignment of the Common Core and 21st century learning

  ❖ Technology embedded throughout the CCSS

    ❖ Conduct research, produce and consume media

    ❖ Enhance reading, writing, speaking, listening, and language use

    ❖ Tailor searches to acquire information

    ❖ Select the best technology tool for the communication goal

    ❖ Visualize results in mathematics

    ❖ Identify digital content to solve problems

Committee Overview

❖ Case Studies

  ❖ Examples of 21st century learning with technology integration

❖ Samples of Success

  ❖ K-5: Coach Caroline Schaab, RO

  ❖ 6-8: Coach Amanda Walsh, LI

❖ Research

Committee Findings

❖ 1:1 Computing

❖ BYOD

❖ Early Childhood/Primary Grade Computing

❖ Learning Models

❖ Infrastructure

❖ Survey Results

Committee Findings:
1:1 Computing

District	Model	Grade Levels	Device(s)	Finances
Lincolnwood 74	1:1	6, 7	iPads	Student Fee
Glenview 34 (proposed)	1:1	K-8	iPads	District/ Student Fee
Kenilworth 38	BYOD 1:1 at school	6-8 3-5	Any iPads	Student Paid District Paid
South Berwyn 100	1:1	K-8	iPads, MacBook	District Paid
Lake Zurich 95	1:1	K-8	iPads	District Paid
Avoca 37	1:1	4-8	MacBooks	District Paid
Hinsdale 181	1:1	3, 6	iPads	District Paid
Niles 71	1:1	6	Chromebooks	District Paid

Committee Findings:
1:1 Computing

- ❖ Site Visit to South Berwyn District 100
  - ❖ District-wide SMART Goal
  - ❖ 3-year Process for Implementation
  - ❖ 100% grades K-8
  - ❖ Mix of iPads and MacBooks
  - ❖ Instructional Coaches for Professional Development
  - ❖ Common Planning Time for Teachers
  - ❖ Observations: student engagement, differentiation, 21st century learning, inquiry-based learning, flipped classrooms

Committee Findings: BYOD

❖ Bring Your Own Device

❖ Site Visit to Kenilworth District 38
  ❖ Grades 6-8
  ❖ Optional to bring devices
  ❖ Inconsistent tools for learning
  ❖ No guidelines for which devices to bring

Committee Findings: Early Childhood/ Primary Grade Computing

❖ All grades benefit from a 1:1 model

❖ Many districts expanding to all grade levels

❖ Choosing the right device
  ❖ Developmentally appropriate tools for learning
  ❖ Support small group instruction

Committee Findings:
Learning Models

❖ Inquiry-based learning

  ❖ Student-centered and teacher-guided

  ❖ Engages students in investigating real world questions

  ❖ Site visit to Holy Family in Palatine

    ❖ Authentic learning opportunities

    ❖ 1:1 technology devices to support learning

Committee Findings:
Learning Models

❖ Flipped Classroom: Site Visit to Kenilworth District 38

  ❖ A means to INCREASE interaction and personalized contact time between students and teachers.

  ❖ An environment where students take responsibility for their own learning.

  ❖ A classroom where the teacher is not the "sage on the stage", but the "guide on the side".

  ❖ A blending of direct instruction with constructivist learning.

  ❖ A class where content is permanently archived for review or remediation.

  ❖ A class where all students are engaged in their learning.

  ❖ A place where all students can get a personalized education.

Source: http://www.thedailyriff.com/articles/the-flipped-class-conversation-689.php

Committee Findings:
Infrastructure

❖ Network built with "future proofing" in mind

❖ Areas to Monitor for Upgrades:

  ❖ Bandwidth

  ❖ Wireless Network

  ❖ Filtering

❖ Phone System: Explore options in 2013-14

Committee Findings:
Survey Results

❖ Parents: 1099 Respondents

  ❖ 100% of respondents have Internet access at home

  ❖ All but 5 respondents (less than 1%) indicate that the children in the home have access to some type of computing device

  ❖ 45% of students in K-2 have a personal device, 82% of students in 3-5 have a personal device, and 95% of students in 6-8 have a personal device

  ❖ 87% of families agree or strongly agree that technology should be an educational priority in District 64

  ❖ 81% of families agree or strongly agree that technology should be a financial priority in District 64

Committee Findings:
Survey Results

Grades 3-5: 1162 Respondents, Grades 6-8: 1003 Respondents

Survey Response:	Grades 3-5	Grades 6-8
Use a computing device for finding information at least once per week	91%	97%
Would bring their own device to school if allowed	76%	88%
Teachers use some form of technology at least 2-3 times per week	91%	84%
Greater access to laptops	53%	68%
Greater access to iPads	82%	74%
Often or always having opportunities to collaborate with their peers	61%	76%
Often or always having opportunities to problem solve	78%	83%
Often or always having opportunities to be creative	71%	80%
Often or always having opportunities to take risks	30%	48%

Recommendation Summary

❖ Based on its findings, **the committee believes learning in District 64 should be: collaborative, creative, connected to the real world, flexible, differentiated, self-paced, inquiry-based, and integrated with technology.**

❖ **Therefore, it is the recommendation of the Board Advanced Technology Committee that all students in District 64 have equal access to the digital resources necessary to support 21st century learning and the implementation of the CCSS in a one-to-one computing model.**

Action Plan

❖ Current State of Technology

  ❖ Infrastructure Upgrades

  ❖ Systems for Productivity and Learning

  ❖ Technology Equipment

  ❖ Professional Development

Vision for One-to-World Learning

If the language we use to describe an initiative sets the tone and direction for it, and if we want to create a more inspiring vision than giving each student a device, then I have a simple proposition: Let's drop the phrase "one-to-one" and refer instead to "one-to-world." This simple, one-word change takes us beyond the focus on the boxes and wires and alludes to why we are making the investment in the first place.

- Alan November

Digital Resources:
The Right Tool for the Job

❖ Selection Criteria:

  ❖ Needs of the curriculum

  ❖ Developmental needs of learners

  ❖ Current tools used in District 64

  ❖ Exemplary models in other districts

  ❖ Articulation with Maine Township High School District 207

  ❖ Management capabilities

  ❖ Requirements for PARCC assessment
  (screen size, keyboard, etc.)

  ❖ Cost

  ❖ Durability

Digital Resources:
The Right Tool for the Job

❖ iPads Grades PK-2

  ❖ Touch screen capabilities to support fine motor development

  ❖ Affordability

  ❖ App-driven to support small group learning and targeted skill practice

  ❖ Existing effective use of iPads at the elementary level

Digital Resources:
The Right Tool for the Job

❖ Chromebooks Grades 3-8
  ❖ Management capabilities for teachers in the classroom
  ❖ Management of devices on the District's network
  ❖ Ability to filter easily
  ❖ Fully integrated with Google Apps for Education
  ❖ Full keyboard
  ❖ Battery life (5-7 hours approx.)
  ❖ Best value
  ❖ Built-in memory
  ❖ Ports to support peripheral devices (USB, memory slot, etc.)
  ❖ Fully supported by NWEA for MAP testing
  ❖ Fully meets minimum requirements for PARCC assessment
  ❖ Ability to use in District 207 when students enter high school

Digital Resources:
The Right Tool for the Job

❖ Other Digital Resources:

  ❖ Continued access to laptops, iPads, and computer labs to support specialized needs

  ❖ Software to meet specific needs of elective courses

  ❖ SmartBoards and/or LCD projectors to facilitate interactive instruction

Additional Considerations

- ❖ Infrastructure/Personnel Support

- ❖ Professional Development

- ❖ Support for Students and Parents

- ❖ Management Systems

- ❖ Curricular Impact

Next Steps

- ❖ Specific options for pacing and implementation consistent with the District's transition to the Common Core State Standards, as well as financial considerations will be presented at the April 22 Board of Education meeting.

Questions/Discussion