HOWARD - SUAMICO SCHOOL DISTRICT
DIGITAL LEARNING TRANSFORMATION Q & A
OCTOBER 2013

1. WHAT IS THE *DIGITAL LEARNING TRANSFORMATION*?

The Howard-Suamico School District's *Digital Transformation* (http://digital-transformation.weebly.com) is an outgrowth of the Board of Education's 21st century policies and the school district's related strategic plan.

To prepare students with the 21st century skills for both higher education and careers, we are strategically investing in the training, support, and equipment that our staff and students need to thrive in the new "digital landscape". While the HSSD has been incorporating technology into all of its schools for more than a decade, we will expand a personal mobile computing initiative throughout the District beginning in the fall of 2013.

As a result of the global technology and information revolution, education is no longer restricted to the traditional four walls of the classroom and two covers of the textbook. When mobile computing technology is put in the hands of staff and students, they literally have the opportunity to redesign the learning environment. For the first time, it is within reach to customize and personalize schooling to more actively engage *all* students. As the District moves in this direction, learning can more readily occur any time, any place, and at any pace. Examples include:

- Tapping the most current information available through the Internet;
- Interfacing with peers on the District's web hosted Learning Management System which will provide staff and students a degree of freedom and flexibility previously unattainable. Students will complete and turn in assignments, homework, projects, or research electronically;
- Leveraging interactive applications to help improve reading fluency, build mathematics skills, bolster study habits, and aid in the creation and publishing of relevant projects and products;
- Replacing bulky and traditional textbooks with high quality digital and multi-media content. Teachers will gradually migrate away from hard copy materials as they progressively supplement with engaging and digitally rich online resources.

What is the bottom line? We intend to increase relevance and engagement to improve learning and achievement. Critics ask the question: "Are we preparing students for or our past or their future?" This initiative reflects the Howard-Suamico School District's affirmation of the latter. An informative video, *Teaching in the 21st Century*, helps demonstrate the powerful shift at the classroom level:

http://www.youtube.com/watch?v=OTIBDR4Dn2g&feature=youtu.be

2. WHY IS THE *DIGITAL TRANSFORMATION* NECESSARY?

As we enter into a new school year, American society finds itself in the midst of a momentous historic transition. In his book, *That Used To Be Us*, Thomas Friedman underscores the point, saying:

Average is officially over. In a hyper-connected world where so many talented non-Americans and smart machines that can do above-average work are now easily available to virtually every employer, what was "average" work ten years ago is below average today and will be further below average ten years from now. Think of the world as one big classroom being graded on a curve. Well, that curve is steadily rising as more brainpower and computing power and robotic power enters the classroom. As a result, everyone needs to raise his or her game just to stay in place, let alone get ahead of other workers.

What was an average performance in the past will not earn an average grade, an average wage, or a middle-class standard of living (Friedman, 2011).

In the 2012 *Speak Up Survey*, **88 percent** of HSSD parents said that "the effective implementation of technology within instruction was important or extremely important to their child(ren)'s success." When asked, "Imagine you are designing the ultimate school. Which of these tools would have the greatest positive impact on your learning?" **Seventy-one percent** of HSSD students chose the response: "Laptop for every student to use at school." In a related survey, more than **70 percent** of HSSD teachers, however, listed their top technology obstacles as: "Not enough computers for students to use - and not all students and families have computer and Internet access at home." Relatedly, in a 2011 Howard-Suamico Community Engagement Survey, **67 percent** indicated, "Finances should best be allocated to ensure a quality education" through "maintaining up-to-date technology."

3. WHY CAN'T WE JUST TEACH THE 3R'S?

Reading, writing and arithmetic *remain* essential to our curriculum, assessment and instructional processes. However, the "coins of the realm" in the 21st century are creativity, critical thinking, and problem solving. Additionally, beginning in 2014-15 all students in grades 3-9 and 11 will take the new Smarter Balanced Assessment. This is an online adaptive assessment based on the rigorous Common Core State Standards (CCSS) in Math and English Language Arts (technology literacies are heavily embedded in the CCSS). Smarter Balanced assessments will go beyond multiple-choice questions to include extended response and technology enhanced items, as well as performance tasks that allow students to demonstrate critical-thinking and problem-solving skills. In short, Howard-Suamico students will be benchmarked against students from around the nation. Correspondingly, this is a prime time to assist our student in increasing their technology proficiencies.

4. WHAT DOES THE RESEARCH SAY?

Arguably the most significant research to date is the *Project RED* study completed in 2010 by a collection of expert researchers and authors. This research identified a number of success factors when analyzing what contributed to success in schools using computers as a primary resource for instructional delivery. The study collected data from more than 1,000 schools and found that there are specific critical success factors that contribute to improvements in student achievement and return on investment: http://www.projectred.org/about/research-overview.html

Howard - Suamico School District administrators have sought counsel and visited personally with *Project RED* authors, Tom Greaves and Michael Gielniak. More importantly, the District has incorporated their research findings into its own *Digital Transformation* planning processes.

5. WHAT HAS BEEN THE TIMELINE AND PROCESS?

February 2009 – Superintendent LaCroix hears author, Clayton Christensen, speak at AASA Conference about *disruptive innovation*

October 2010 – First tour of nationally recognized Mooresville Graded School District, North Carolina (*Flight sponsored by the Ferguson Family Foundation)

2010-11 school year – Internal discussions, conferences and research readings on *Digital Transformation*

September 2011 – Howard-Suamico invited as charter member of *League of Innovative Schools*

November 2011 – Community Engagement Survey; technology emerges as a top priority

January 2012 – Will Richardson keynotes WASB State Education Convention attended by Board members and superintendent

March 2012 – Board of Education convenes at St. Norbert College to tour a 21st century learning facility, Mulva Library
April 2012 – HSSD tour of Mooresville Graded, including Board member Mark Ashley; informational update to Board
     (*Flight sponsored by Tom Madigan)

April 2012 – Board of Education approves broadband infrastructure upgrade in HSSD

April 2012 – *Digital Transformation* Committee formed and planning begins

May 2012 – Board of Education adopts new Ends Policies

June 2012- *Digital Transformation* informational update to the Board

June - July 2012 – New strategic objectives, including heavy emphasis on student engagement and college/career readinness

Summer 2012 – Technology gap analysis conducted by outside consultant

August 2012 – *State of District* and *Welcome Back Inservice* messages – *Digital Transformation* direction outlined

August 2012 – *Digital Transformation* Phase I launched at Bay Port High School, seven teachers and 115 students

Sept. - May 2012-13 - Cohort of teachers and administrators participate in John Kuglin technology academy trainings on
     becoming a *digital educators*

2012-13 – Board conducts book study, *Understanding the Digital Generation,* by Ian Jukes

Fall 2012 – *Project Tomorrow Speak Up Survey* administered to parents, students and staff

November 2012 – Strategic Plan informational update to the Board

December 2012 – *Digital Transformation* informational update to the Board

January 2013 – Cohort group of Bay Port teachers begin eLearning course focused on transforming instruction

February 2013 - Bay Port Principal, Mike Frieder, presents to Superintendent's Parent Advisory Council on *Digital
     Transformation*

March 2013 – Kyle Siech named as Director of Technology and Information Services

April 2013 - Board of Education transitions to paperless meetings, cloud storage and laptop usage in meetings

May 2013 - Superintendent's Parent Advisory Council Tours Lineville to see examples of *Digital Transformation*

Spring 2013 – D. LaCroix attends staff meetings at every school to discuss strategic planning, including *Digital Transformation*

May 2013 – Presentation to the Board requesting authorization to proceed to next stages of *Digital Transformation*

Summer/Fall 2013 – Communication, training, and device distribution

6. HOW DID THE DISTRICT DECIDE WHICH DEVICES TO USE?

    The HSSD *Digital Transformation* is designed to further transform instructional practices by integrating the tools of technology to prepare students with the 21st century skills of collaboration, communication, creativity, critical thinking / problem-solving, and digital citizenship. By equipping students with 21st century tools, the District can better promote college and career readiness. Ultimately, students will utilize these 21st century skills in the workforce. Through this initiative, we will help them become innovative problem solvers capable of operating in a dynamic and fast-paced world.

To help guide the decision on which devices would help meet the District's *Digital Transformation* goals, a team of tech savvy educators researched a variety of options. During the process, HSSD analyzed the success of one of the most acclaimed technology districts in the nation – Mooresville Graded located in suburban Charlotte, NC. Similar to the Howard-Suamico School District, Mooresville Graded is high achieving and low spending. In its spring 2013 edition, *Scholastic Administrator Magazine* named Mooresville Graded at the "Best School District in America". Its superintendent, Mark Edwards, was named by AASA as the 2013 National Superintendent of the year.

As the District continued to review its options, our team analyzed many factors including functionality, efficiency, ease of use, and reliability. Based on research, District history with Windows based PC products, and internal discussions concerning the overarching goal of transforming the teaching and learning processes, a decision was made to move forward with the MacBook Air laptop at grades 9-12 and iPads in grades K-8.

7. WHAT MAKES APPLE THE BEST CHOICE?

The December 2012 edition of *Consumer Reports* (widely regarded as an objective third party source of information on consumer products) ranks the MacBook Air as the "Best Thin-And-Light Laptop." It says, "This thin-and-light Mac laptop was an excellent performer. Battery life was very long, providing well over a workday's worth of juice…Features include a 128 – gigabyte solid-state drive, which uses less power and accesses data more quickly."

The overview indicates that "Apple was among the most reliable desktop brands and had the best technical support." It accentuates the point saying, "It's hard to generalize about computer brands for several reasons, including the fact that the configuration, or the components a specific model has, determines a computer's speed and performance. Both of those factors are heavily weighted when we figure a model's score. ***Even so, one brand stands out as the best all-around choice: Apple. Year after year, its laptops and desktops have done very well in our tests, which have led us to almost invariably recommend Apple models. Apple also excels in tech support. For reliability, its laptops have been comparable to Windows-based PCs,*** and its desktops have had fewer repairs. Though Apple has had consistently high scores, we've found more variation in performance among Window-based PCs.

Tech support in general is among the lowest-rated services in all of the surveys conducted by the Consumer Reports National Research Center. **But that doesn't apply to Apple,** which beat all the makers of Windows-based PCs covered in our most recent survey.

Apple solved user problems **73 percent** of the time, compared with 61 percent for its nearest competitor, Dell. Apple also had higher marks for phone and online support. Apple continues to offer unlimited free support at Apple Stores after its 90-day free phone support runs out." In a spring of 2013 edition of Consumer Reports, it reported that Apple **"walloped"** its competition in customer service exceeding its already high industry leading standard.

In addition, the District utilized information from studies on the Total Cost of Ownership (TCO). According to a study conducted by the VDC Research Group, which is a market research and strategy consulting firm, "To determine "true" TCO, it is imperative to consult both hard (direct) and soft (indirect) costs. Hard costs consist of hardware and software costs...Soft costs are more difficult to determine and include expenses associated with operating and maintaining any mobile solution. VDC's research shows that over 70% of the cost of owning a mobility solution can come after the initial purchase. This underscores the significance of taking a long-term view during the initial selection process."

By analyzing various research and device options we were able to make an informed decision. As the VDC study noted, "Having a full view of the cost of a mobile computing deployment over its lifetime provides insight into the type of solution that needs to be deployed."

In short, the District is confident that the Mac book Air (and iPads) will meet performance expectations and provide the reliability and functionality needed to achieve the District's mission of "ensuring that our students have the knowledge and skills to succeed in a changing world."

Notes: -Bolding, italics and underscoring added for emphasis.

-HSSD remains a dual platform District as some specialized subject areas still demand the use of other products.

8. WHAT IS THE INVESTMENT COST?

In 2012-13, the District made an initial investment by purchasing Mac Air's for seven high school teachers and 115 students. We believe it is imperative for all teaching staff to migrate to the new platform prior to students and be able to create engaging lesson plans utilizing the latest in technology innovation e.g., iBooks, etc. To accomplish this transition, the next investment included the purchase of Mac Air's for a majority of teaching staff and Bay Port students. Beginning the 2013-14 school year, 360 staff members along with approximately 860 high school students have Mac Air's.

On May 6, 2013, the Board approved a request to fund the next phase of Digital Transformation. The District is allocating resources it had saved and repurposed specifically for this cause. Long-term sustainability of this initiative will be achieved through a variety of funding sources including, but not limited to: repurposing of resources (e.g. discontinuing textbook purchases), transforming IT (e.g. cloud-based, shared computing model), maximizing open source products (e.g. Google Docs), cost avoidance (e.g. less paper and ink for printers); grants; gifts (options are being pursued with individual benefactors); annual insurance fees ($35 for K-8 students and $75 for high school students), and a percentage of school and department allocations redirected toward the *Digital Transformation* initiative.

9. WHAT TYPE OF PROFESSIONAL DEVELOPMENT WILL BE PROVIDED?

Howard - Suamico School District is a learning organization. Just as in the classroom, the goal is to differentiate professional development based on readiness and capability. The District is committed to providing training to staff that is standards based, job embedded, just-in-time and teacher-led. A detailed memo was shared with staff during the week of May 27, 2013. Emphasis this school year includes device training, instructing in a digital environment, and using a web-based learning management system as a repository of coursework, etc.

10. CAN MY CHILD BRING HIS/HER OWN DEVICE?

Yes. However, not all personal devices may have the functionality to support the type and quality of assignments made for the District provided device. The devices provided by the District have the necessary software, textbook, and curriculum resources installed. These applications are needed in order to ensure that each student has an equitable learning experience. Not all resources will be Web-based and students will need to access their files on the District servers. The District will also not be able to load licensed software or applications on personal equipment. HSSD will only provide technical support for District provided devices. In addition, the District provided device helps to ensure network security, monitoring of student compliance

with the Acceptable Use Policy, coverage in cases of theft or damage, uniformity of installation of software applications, and protection against the potential loss of instructional time spent troubleshooting non-district provided devices.

11. WHAT FILTERING, SECURITY & EDUCATIONAL MEASURES ARE IN PLACE?

The District uses a next-generation firewall called *Palo Alto*. This filters web sites, viruses, and Web 2.0 Apps based upon student and staff user ID's. Filtering categories are established by the District's Library Media Specialists' Team and enforced with all students and staff. While no filtering solution is perfect, the *Palo Alto* does a reliable job of identifying items that should be filtered and threats that should be stopped. Below is a link to more information about our *Palo Alto*:

http://media.paloaltonetworks.com/documents/datasheet-firewall-feature-overview.pdf

Curriculum
The HSSD 21st Century Skills Citizenship curriculum is directly aligned in grades K-12 to the following NETS-S standard and benchmark:

Digital Citizenship - *Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:*
    a. **advocate and practice safe, legal, and responsible use of information and technology.**
    b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
    c. demonstrate personal responsibility for lifelong learning.
    d. exhibit leadership for digital citizenship http://hssd21.weebly.com/citizenship.html

Resources
NetSmartz is our primary resource for teaching internet safety. *NetSmartz* provides an interactive, educational program with age-appropriate **resources to help teach children how to be safer on and offline**. The program is designed for children ages 5-17, parents and guardians, educators, and law enforcement with resources such as videos, games, activity cards, and presentations. (http://www.netsmartz.org/Educators and http://www.netsmartzkids.org/) We also use internet safety resources from these products: BrainPOP, EasyTech, and Common Sense Media.

Community Wi-Fi Access – This resource provides a list of community wi-fi access locations within the community.