

MSAD #60

Technology Plan

Effective: 7/1/2012 - 6/30/2015

Schools Included:

Noble High School

Noble Middle School

Vivian E. Hussey School

Eric L. Knowlton School

Hanson School K-3

Lebanon Elementary School

North Berwick Primary School K-3

Mary A. Hurd School

Grades:

9-12

6-7

K-3

4-5

4-5

4-5

Updated Fall 2011
Completed Spring 2012

Contact information:

Chris Russo

Director of Technology &

Library Services

c.russo@msad60.org

207-676-2234 ext 301

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1. Community and Parental Involvement

MSAD #60 relies on Technology as an essential tool to involve our parents and the community in both giving and receiving feedback.

Current:

MSAD #60 currently utilizes Infinite Campus as our student information system. Infinite Campus is provided to the district by the state at no cost. Parents and Students have login access to IC and can view students' grades, attendance, and schedules. IC is also used to allow students to register for classes in grades 8-12. 46% of all High School parents have accessed their students IC account at least once, with parents logging in an average of 500 times per week. 70% of all Middle School parents have accessed their students IC account at least once, with parents logging in an average of 600 times per week.

MSAD #60 uses Blackboard Connect as a mass notification service. Each School building has access to the system and uses it to alert parents via telephone and text message about upcoming events and emergencies. The schools' administration also use this tool to contact parents of students who are absent, but not reported by the parent. There is also a district account which can be used to message all parents about weather related closings, emergencies, and provide updates on district initiatives.

MSAD #60 has implemented redesigned school and district websites using Drupal, an open source content management system. Each site has been designed according to a template, which ensures consistency from school to school. The sites have made school handbooks, calendars, and contact information, as well as news and events available online. School Board meeting agendas and notes are visibly posted on the front page of our district site. MSAD #60 has purchased our own domain, "MSAD60.org" to host our websites and services. The departure from our old, sad60.k12.me.us domain has simplified our information and dramatically increased our web traffic. Our District site hosts about 50,000 unique visitors per school year, and sees about 700,000 visits per year. Visit www.msad60.org

MSAD #60 uses a variety of survey tools to gather feedback from the community. The use of Google Apps for Education has made it possible for faculty and staff to create their own surveys via Google Forms to collect information from parents and students alike. On our school and district sites, we have installed a drupal module which allows us to embed surveys as part of our site. We have used this tool to collect feedback from the community and parents about a variety of topics, including school restructuring, early release / late starts, and budget priorities.

MSAD #60 Community and Adult Education offers multiple computer related courses. Parents of students in grades 7-12 also gain access to their student's MLTI device via a separate parent account.

MSAD #60 hosts three laptop parent information nights per school year. Parents of students in grades

6-12 are invited in to hear about program updates, as well as how to monitor their student's use of the school issued laptop. Video recordings of the presentation are made available online for parents to refer back to at a later date.

Future:

MSAD #60 intends to expand the use of infinite campus to include paperless report cards. We hope to increase our parent participation and logins to 100% by allowing parents to opt out of paper report cards. We will also be better publicising how parents can request their login information. This will be posted on each school website, as well as the district site.

MSAD #60 intends to expand the use of Blackboard Connect to include parent email accounts. This will allow building and district administrators to send documents via email to all parents and verify that parents received the information. We also intend to automate the process of uploading parent information into Blackboard Connect, so that new parents and/or changes to parent contact information in Infinite Campus are immediately reflected in Blackboard Connect.

Our School and District websites will continue to evolve to include features such as exhibitions of student work, registration portals, and even school stores to raise revenue for MSAD #60.

Parent information nights will be streamlined so that there is one MSAD #60 Laptop parent information night for students 6-12. The presentation will continue to be recorded and posted online for future reference. A community portal will be developed to allow parents, students, and staff to post and answer questions regarding the use of technology in MSAD #60.

2. Vision -

Our mission is to foster a life-long love of learning, develop responsible decision-makers, teach the essential skills necessary to meet the demands of a changing world, and develop caring and contributing members of a multicultural world.

3. Goals –MSAD #60 is currently working to align its curriculum to the Common Core State Standards, based upon timelines established by the State. The Common Core explicitly integrates technology in order to improve academic achievement.

As stated by in the document titled:Common Core State Standards for English Language arts & Literacy in History/Social Studies, Science, and technical Subjects

Research and media skills blended into the Standards as a whole:

To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and

report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new. The need to conduct research and to produce and consume media is embedded into every aspect of today's curriculum. In like fashion, research and media skills and understandings are embedded throughout the Standards rather than treated in a separate section.

As we align our curriculum, technological goals will be made explicit at each grade level.

4. Identify Necessary Technology –

Connectivity:

All MSAD #60 School and Central Office are connected via high speed broadband connections provided by MSLN. Noble High School currently has a 100 Mbps symmetric connection, and a planned upgrade by MSLN will increase that connection to 200 Mbps. Noble Middle School currently has a 20 Mbps symmetric connection and all other district buildings have 10Mbps symmetric connections. Future plans include the direct linking of buildings via fiber to allow for 1 MSAD #60 network. Our internet services are currently filtered by MSLN provided Hardware/Software including a Joebox at NHS and Open DNS at all other sites.

All MSAD #60 Buildings are 100% covered by an open wireless network. Noble High School and Noble Middle School have Cisco WAPs and network controllers provided by the MLTI program. All other buildings have Apple Airport Extremes which provide wireless access. By 2015 all buildings will be upgraded to higher capacity WAPs.

LAN's are being replaced/upgraded on a yearly basis, in sync with upgrading buildings from POTs to VOIP phone systems. Most recently, the Vivian E. Hussey School (Fall 2010) and the Eric L. Knowlton School (Summer 2011) networks were upgraded to include fiber optic connections between IDF's as well as POE switches to support VOIP phone systems. Planned upgrades include Noble High School switch and phone system upgrade in Summer 2012, North Berwick Primary School network replacement and phone system upgrade in Summer 2013, and Noble Middle School in Summer 2014. Lebanon Elementary School, Hanson School, Mary Hurd School, and Central Office have existing VOIP systems. Their networks will be upgraded/ replaced under future technology plans.

Buildings housing Grades K-3 (*Hanson School, North Berwick Primary School, Vivian E. Hussey School*)

Current:

1 Apple iBook G4 laptop per teacher

1 Apple iPad 2 16GB per teacher

1 Apple Macbook Air / Macbook per Administrator

2 Apple iMac 17 inch Flat Screen - Building Secretary & Library Patron work station
1 Computer lab containing 22-25 eMac / iMac desktop computers / High volume network printer
24 Apple iPad 2 16GB for student use
1 Laptop Cart containing 18-22 Apple iBook G4 laptop
1-2 Food Service Point of Sale Touch Screen Windows box
2 Epson S6-S9 LCD projectors

Future:

Summer 2012 - Replace 1 Laptop Cart containing iBook G4 Laptops with 22 Apple iPad 2's
Summer 2012 - Add 1 infocus LCD Projector to each 3rd grade classroom
Summer 2013- Replace Teacher iBook G4's with Purchased (off-lease) MLTI Macbooks.
Summer 2013- Ceiling mount Epson S9 LCD Projector in each 3rd Grade classroom.
Summer 2013- Provide infocus LCD Projectors to each 2nd grade classroom

Buildings housing Grades 4-5 (Lebanon Elementary School, Mary Hurd School, Eric L. Knowlton School)

Current:

1 Apple iBook G4 laptop per teacher
1 Apple iPad 2 16GB per teacher
1 Apple Macbook Air / Macbook per Administrator
2 Apple iMac 17 inch Flat Screen - Building Secretary & Library Patron work station
1 Computer lab containing 22-25 eMac / iMac desktop computers / High volume network printer
12 Apple iPad 2 16GB for student use
1 Laptop Cart containing 18-22 Apple iBook G4 laptop
1-2 Food Service Point of Sale Touch Screen Windows box
1 Ceiling mounted Epson S9 LCD Projector per 5th Grade Teacher
1 Cart mounted Infocus LCD Projector per 4th Grade Teacher

Future:

Summer 2012- Ceiling mount New Epson S9 LCD Projectors in each 4th grade classroom
Summer 2012- Provide Cart mounted Infocus LCD projectors to all 3rd Grade Classrooms
Summer 2013- Replace Teacher iBook G4's with Purchased (off-lease) MLTI Macbooks.
Summer 2013- Replace Computer lab Emacs with Purchased (off-lease) MLTI Macbooks.
Summer 2013- Replace Laptop Cart iBooks with Purchased (off-lease) MLTI Macbooks.

Noble Middle School (Grades 6-7)

Current:

1 Apple iBook G4 laptop per 6th Grade Student (~330)
1 Apple Macbook per 7th Grade Student (MLTI)
1 Apple Macbook per Teacher
2 Apple iMac 17 inch Flat Screen - Building Secretaries

Future:

Continue Participation in the MLTI Program

Noble High School (Grades 8-12)

- 1 Apple Macbook per Student
- 1 Apple Macbook per Teacher / Guidance Counselor
- 1 Apple Macbook per Administrator
- 6 Apple iMac 17 inch Flat Screen - Building Secretaries & Library Patron work station
- 1 Computer lab with 20 iMac 17 inch Flat Screen
- 1 Computer lab with 20 iMac (old model) - Library Classroom
- 1 Computer lab with Windows XP machines with Auto-Cad
- 5 Apple Emacs - Library
- 1 Ceiling Mounted Epson S5-S9 LCD projector per classroom.
- 2 Apple iBook G4 Laptops with Keepntrack Kiosk visitor access system - Front Office.

Future:

Continue Participation in the MLTI Program

Update Auto Cad Lab with 24 inch displays and VGA connectors.

Include Auto Cad and additional lab software on MLTI image, so all students and staff have access

Central Office:

Current:

- 1 Apple macbook per Administrator- 4
- 1 Apple macbook pro - business manager (1)
- 1 Apple macbook with accompanying 22 inch LCD monitor per- payroll/special ed secretary (6)
- 2 Apple iMac 20 inch per secretary (2)
- 1 Panasonic Tough Book- Maintenance Director
- 1 VOIP phone per employee

Future:

Upgrade current VOIP phones

Transportation Department:

- 2 Apple macbook- Transportation Director & Special Ed Transportation Sec
- 2 Apple iMac 20 inch - Transportation Secretary & Maintenance Manager

Future:

Move bus garage to VOIP phone system:

1 POE Network Switch
5 VOIP phones

1 Panasonic Toughbook - Repair technician

5. Collaboration with Adult Literacy Service Providers –

MSAD #60 Technology Department provides a variety of services to the Noble Adult & Community Education program, located at Noble High School.

- Internet and networking service and maintenance
- Planning and Purchasing for hardware and software requirements
- Installation of various technology items, including power, LCD Projectors, and furniture.
- NACE staff are included in Professional Development
- NACE staff often request specialized training which done
- On demand troubleshooting and support.
- CLEP testing facility housed at NHS, and open to faculty, students, and community members.

6. Strategies for Improving Academic Achievement and Teacher Effectiveness –

In order to improve the technology literacy of students in MSAD #60, students and staff must have ubiquitous access to functioning, reliable technology. Technology must act as a tool to differentiate for our students. Upgrades to building networks and VOIP phone systems allow teachers to communicate with each other and parents in a cost effective manner.

7. Integration of Technology with Curricula, Instruction, and Assessment –

Successful integration of technology into curricula, instruction and assessment relies on multiple, ongoing professional development opportunities for teachers. While some of this PD must be lead by the Technology Department, in order to fully integrate, those offering PD in focus areas such as literacy and numeracy must specifically focus on the integration of technology into these areas. Technology must be viewed as part of literacy and numeracy, not a separate piece. Supporting software must be targeted to assist in instruction.

Goals:

1. Maintain acceptable level of intermediate technology competency among all staff. Continue to target and train those staff who are below the intermediate level of competency. Expand opportunities for online learning for those staff who are at or above the intermediate level of technology competency.
2. Research, purchase, and implement developmentally appropriate software to support increased literacy and numeracy scores at the K-5 Level.
3. Train teaching staff how to research and access appropriate supporting content to provide for students.
4. Increase Professional Development opportunities for administrators and PD providers in order to ensure

the specific integration of technology into staff PD.

Timeline: Goal 1 ongoing in 2012-2015
Goal 2 summer 2012- Fall 2013
Goal 3 ongoing in 2012-2015

8. Technology Type and Costs, and Coordination with Funding Resources –

ACTIVITIES	HARDWARE/SOFTWARE	COSTS	FUNDING SOURCE
NHS Network Upgrade	POE Network Switches, Smart-Ups, patch panels, Fiber Patch Cable	~35,000	District budget / E-rate Priority 2
NHS VOIP System	Phone servers, 24 port FXS channel banks, Handsets, Cabling	~26,000	District budget / E-rate Priority 2
Additional Ipads @ k-3	iPad 2's, itunes volume purchase credit,	~30,000	District Budget
MLTI Buyout	13 inch Macbooks x 1500	~70,000	District Budget
NHS Cad Lab upgrade	Flat panel LCD displays, VGA connectors	~9,000	District Budget
MLTI HS Participation	13 inch Macbooks/new device in Fall 2014	250,000/ year	District budget
LCD Projectors	Epson S11 or equivalent x 13-15 per year	~28,000 / year	District budget
NMS VOIP Phone system	Planned in 2014-2015	~30,000	District budget / E-rate Priority 2
NBP VOIP Phone system	Planned in 2013-2014	~30,000	District budget / E-rate Priority 2
Blackboard Connect	Mass notification software	~9000 / year	District budget / E-rate Priority 1
Virtualization of district servers	Vheem Backup software, Raid Server,	~10,000	District budget

9. Supporting Resources –

Software and access to electronic media will be purchased/contracted for on an ongoing basis after review by those most closely connected to the software/media, the building principals, and the Technology

Director to ensure that it will be valid, compatible, and meet the needs of our learners.

MSAD #60 has implemented robust information and communication systems including Infinite Campus, Google Apps for Education, Versatrans, Drupal, and Asterisk VOIP. Curricular software and media already in place includes a variety of titles. An emphasis has been placed on software/apps that focus on literacy and numeracy. Teachers have also been trained on free/open source resources including Kahn Academy, and dozens of free, educational apps.

10. Steps to Increase Accessibility –

MSAD #60 is committed to providing equal access to technology resources to all of its students and staff. We plan to continue to renew our K-5 staff laptops and computer labs with newer machines on a regular cycle. Older machines will be redistributed among the classrooms to increase student access. Most significantly, the district's commitment to the MLTI program 7-12 has, and will continue to allow us to provide 1-to-1 access for all students in grades 6-12, as well as regularly refresh our inventory of K-5 devices. In addition, a K-5 iPad program has been implemented. This program provides access to a variety of free / low cost applications which can be targeted to meet the needs of specific learners.

11. Promotion of Various Curricula and Teaching Strategies that Integrate Technology –

MSAD #60 is currently aligning our curricula to the Common Core State Standards. Once this work is complete, grade level technology standards will be published and exemplars posted online. Sample lessons will also be published, along with accompanying resources, such as rubrics, and how to documentation.

Training for teaching staff will need to be convenient and ongoing. Staff instruction will include examples and the basic skills needed for the appropriate application. Trainers will be aware of classroom curriculum as well as the technological skills. Efforts will be made to publicize and coordinate curriculum across grade levels, so that consistent integration can be achieved.

12. Professional Development –

MSAD #60 recognizes the critical need for ongoing staff development, not only for teachers, but also for administration and support staff. All staff members need to be at a minimum level of proficiency, and be moving towards an intermediate level of technology proficiency in order to enhance student learning and be as efficient as possible.

Each year, all staff will participate in a technology proficiency survey. Additionally, staff will be observed on a regular basis, and technology use / integration will be documented in all staff evaluations. The results of these measures will be shared publicly. Our goal is for all staff to be progressing along the continuum of technology proficiency. Whether a user is a novice, and can be moved proficient, or a user is an

intermediate, and becomes advanced, the goal is to make progress during valuable PD time. Therefore, all Professional development will be differentiated, based on the proficiency of the staff.

In order to support staff in the endeavor, MSAD #60 will offer the following opportunities throughout the year:

- Summer training by appointment
- After school Workshops
- one-on-one instruction
- Monthly team trainings
- On demand support from the technology department website
- MLTI and other web-based training opportunities
- Early release / late arrival staff development times. (Weekly / Monthly)

All staff will be required to include a technology integration component in their professional growth plans.

13. Innovative Delivery Strategies –

MSAD #60, and more specifically Noble High School are currently developing a model for credit recovery that utilizes online resources and course templates, to be implemented by the teaching staff. The goal is to credit a rigorous credit recovery system that ensures students are meeting the standards set forth in the common core, while being offered the flexibility to learn anywhere, anytime. While being developed to meet the needs of a targeted group of students, this model is intended to become an exemplar of technology integration for regular classes, 6-12, where 1-to-1 initiatives are in place.

K-5 Administrators and Teachers will all maintain a classroom website by Winter 2012. A web presence will enable Teachers to pull content from the web and provide students access to instructional support materials that are specific and timely to student learning.

All teachers have access to, and will be trained on how to access video conferencing via Google Chat. This will enable any teacher to connect his or her classroom to any other classroom in the district, or to outside presenters.

14. Accountability Measures –

Staff evaluation data will be examined for the frequency of technology integration. Staff survey tools will include a self assessment as to the level and frequency of technology integration in their classroom over the course of the year. Survey results will be paired with NWEA / MEA data in order to determine the effectiveness of current technology integration on student achievement.