



## **2013-14 School Technology Plan**

**Milton Hershey School – Senior Hall**

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**Principal:** William “Skip” Weber

## II. Introduction

### Mission Statement:

**The mission of Milton Hershey School remains true to the ideals upon which it was founded more than 90 years ago ...**

*In keeping with Milton and Catherine Hershey's Deed of Trust, Milton Hershey School nurtures and educates children in social and financial need to lead fulfilling and productive lives.*



Each staff member at the Milton Hershey School has an obligation to provide a high quality education, which provides opportunities for students to develop important 21<sup>st</sup> Century skills to succeed in a global economy. Each staff member realizes that technology is an essential tool used to help provide innovative, collaborative, and global solutions.

### Overview:

The Milton Hershey School (MHS) is the largest private residential school in the United States. Located in Hershey, Pennsylvania, the school is home to over 1,800 student's ages 4 through 18. It is comprised of a diverse population of students from across the country:

- 100% of MHS students come from families living in poverty with an average income of \$13,000.
- 78% of students come from Pennsylvania
- 30% of Pennsylvania students come from Lancaster, Lebanon, and Dauphin counties
- 22% of students come from a total of 32 different states (including Washington D.C.)

The Milton Hershey School is comprised of 3 different divisions: Elementary Division (K-4), Middle Division (5-8), and Senior Division (9-12). Due to the unique nature of the Milton Hershey School, the technology plan stated in this document will focus on the Senior Division (9-12).

### Technology Vision:

The purpose of a technology plan or vision is to establish how technology will be used by all stakeholders to help enhance the learning process of all students. The Milton Hershey School recognizes that students and staff live in an ever-changing global economy, which requires students and staff to develop valuable 21<sup>st</sup> Century skills. Our organization recognizes that technology without valuable instruction is meaningless; therefore, we strive to serve our students and staff by investing in valuable opportunities to use technology in both creative and productive ways. This technology plan will be revised on a quarterly basis and will be edited due to budgetary considerations, staffing changes, systems priorities changes, and changes in strategic direction.

### **III. Technology Planning Committee Members**

- **Director of Learning Technologies, Chair**
- Vice President of Curriculum and Instruction
- IT Director
- High School Administrator
- Senior Division Home Life Administrator
- Senior Division Transitional Living Administrator
- High School Librarian
- High School Math Teacher
- High School English Teacher
- High School Social Studies Teacher
- High School Science Teacher
- High School Health / Physical Education Teacher
- High School Performing Arts Teacher
- High School Career Technical Education Teacher
- High School Career Counselor
- High School Ninth Grade Academy Teacher
- Student Representative
- House Parent Representative

The purpose of the Technology Planning Committee is to evaluate and implement effective uses of technology to enhance instruction for all students and teachers. Members of the committee will analyze both effective and ineffective ways of incorporating technology into the classroom, professional development, and community. Staff will meet the first Thursday of every month from 3 to 4 pm on the top floor of the LRC. A detailed agenda will be emailed to members one week before each meeting.

## **IV. Current State of Technology in the Building**

Technology is an important aspect of curriculum, instruction, and staff development at the Milton Hershey School. Our school network contains the following:

- 19,000 connected devices
- 40 GB backbone
- 1 GB fiber connection
- Over 240 buildings connected to the school network
- 340 network switches
- 130 servers containing 110 virtual servers
- 1036 wireless AP's provide 80% on campus wireless capability

### **Technology Curriculum**

Students in grades 9 – 12 have the opportunity to integrate technology into their classes on a daily basis. All ninth grade students utilize desktop computers in many of their core classes, such as Math, English, Science, and Social Studies. In the fall of 2012, our ninth grade students organized a Mock Election, which utilized Google Docs and laptop voting stations. Ninth grade students use various career specific technologies, as part of a rotation of Career Technical Education class rotation. Students participate in Business, Graphic Arts, Computer Programming, and Architecture.

All tenth grade students have to take Business Communications and Business Tech Apps as part of a graduation requirement. Students earn a nationally recognized certification in Microsoft Word, PowerPoint, Excel, and Access. As students transition into their junior and senior years, they are issued personal laptops, which are used in a majority of their classes on a daily basis. When students graduate from the Milton Hershey School, they are issued a laptop for their post-secondary education studies.

## **Professional Development**

Our staff incorporates a variety of technologies into their lessons on a daily basis, such as SmartBoards, Document Cameras, Smart Response Systems, and iPads. An array of professional development opportunities has been built into the school calendar to support staff. A total of eight professional development days are built into each calendar school year. School Administrators and Department Chairs collaborate to provide relevant and appropriate professional development opportunities for all staff.

The Milton Hershey School employs a Learning Technologies staff, which supports staff with incorporating technology in the classroom and serves as a valuable training resource. The Learning Technologies staff has partners with classroom teachers to help train staff on the many of the latest instructional strategies and technologies.

The Milton Hershey School Human Resources and IT departments also provide a variety of technology workshops throughout the school year. Many of these workshops focus on the utilization of specific types of software, such as Word, Excel, PowerPoint, and Outlook.

## Hardware Data:

<b>Macintosh Desktop Computers</b>			
Name (e.g., iMac)	Processor	Number	Computers in:
iMac	2.7 GHZ Intel Core I5	16	Classrooms
			Labs
			IMC/Library
			Non-instructional locations
		<b>16</b>	<b>:Total</b>
<b>Macintosh Laptop Computers</b>			
Name	Processor	Number	Computers in:
Macbook Pro	2.53 GHZ Intell Processor	9	Classrooms
			Labs
			IMC/Library
			Non-instructional locations
		<b>9</b>	<b>:Total</b>
<b>PC Desktop Computers</b>			
Name	Processor	Number	Computers in:
• HP p2-1310 Desktop PC	• AMD E2-1800 APU (1.7 GHz )	50	Classrooms
• HP p2-1310 Desktop PC • HP-6200	• AMD E2-1800 APU (1.7 GHz )	180	Labs
• HP p2-1310 Desktop PC	• AMD E2-1800 APU (1.7 GHz )	40	IMC/Library
• HP p2-1310 Desktop PC	• AMD E2-1800 APU (1.7 GHz )	10	Non-instructional locations
		<b>280</b>	<b>:Total</b>

<b>PC Laptop Computers</b>			
Name	Processor	Number	Computers in:
<ul style="list-style-type: none"> <li>• HP Compaq 6710b Notebook</li> <li>• HP 6730</li> <li>• HP 6550b</li> </ul>	<ul style="list-style-type: none"> <li>• Core 2 Duo T7300 2.0 GHz / INTEL GMA X3100</li> <li>• Intel Core 2 Duo T5670</li> <li>• Intel Core i5 450M</li> </ul>	130	Classrooms
<ul style="list-style-type: none"> <li>• HP 5102 Mini</li> </ul>	<ul style="list-style-type: none"> <li>• Intel Atom N450 / 1.66 GHz</li> </ul>	400	Student issued Laptops
<ul style="list-style-type: none"> <li>• HP 6730</li> <li>• HP 6550b</li> </ul>	<ul style="list-style-type: none"> <li>• Intel Core 2 Duo T5670</li> <li>• Intel Core i5 450M</li> </ul>	100	Labs
			IMC/Library
<ul style="list-style-type: none"> <li>• HP 6730</li> <li>• HP 6550b</li> </ul>	<ul style="list-style-type: none"> <li>• Intel Core 2 Duo T5670</li> <li>• Intel Core i5 450M</li> </ul>	45	Non-instructional locations
		<b>45</b>	<b>:Total</b>
<b>Servers</b>			
Name	Processor	Number	Server Locations:
			Classrooms
			Labs
			Server Farm
			Other non-instructional Location
			<b>:Total</b>
<b>Peripheral Devices</b>			
Number	Overall Count		
0	Inkjet Printers		
10	Color Laser Printers		
100	Laser Printers		

5	Scanners
47	Digital Still Cameras
45	Digital Movie Cameras
160	LCD Projectors
102	Interactive WhiteBoards (SMART)
0	Interactive WhiteBoards (Promethean)
0	Interactive WhiteBoards (Other, please specify brand)
26	Student Response Systems
120	iPads
44	Tablets (Slates)
75 Document Cameras	Other Devices (Please Identify)



## V. Action Plan: Set of Defined Goals/Initiatives

The Milton Hershey School recognizes its valuable role in the development of 21<sup>st</sup> Century Global Citizens. The knowledge and skills that our students develop today will provide students with valuable skills to live in an ever-changing digital world. In order to develop these valuable skills, The Milton Hershey School has aligned its instructional goals and strategies with ISTE's NETS Standards. For the 2013-14 school year, we will focus on achieving the following Instructional Goals:

### Goal # 1 – Develop a Culture of Creativity and Innovation

- **Students** will use a variety of technologies to demonstrate higher level thinking through demonstrating creative and innovative thought. According to the [Bloom's Revised Digital Taxonomy](#), creativity is one of the highest levels of learning.
- **Teachers Will Facilitate and Inspire Student Learning and Creativity** through a variety of instructional techniques that require students to use technology to creatively express knowledge, solve problems, and demonstrate higher level thinking.
- **Administration will provide visionary leadership** through acquisition of appropriate instructional technology tools and staff development, which will encourage student learning, creativity, and innovative thought.
- **Tools needed to accomplish goal:**
  - The Milton Hershey School respects the need to implement the latest technologies into our classrooms to enhance student learning. Our goal is to double the amount of iPads available to students from 120 to 240. This will lead to an increased demand on our wireless networks, which have recently been upgraded to keep up with this increased demand.
  - The Learning Technologies Department will begin training teachers how to implement iPads into their classrooms through mini-trainings offered during department meetings and staff development days.

### Goal # 2 –Excellence in Communication and Collaboration:

- **Students** use a variety of “digital media and environments to collaborate, communicate and interact with other students, teachers and professionals” in order to interact and engage with a global world.
- **Teachers will Design and Develop Digital-Age Learning Experiences and Assessment:** by using technology to communicate to provide accurate and timely feedback, necessary to the academic and personal development of the student. Teachers will utilize technology in creative ways to communicate with all stakeholders to support the development of each student.
- **Tools needed to accomplish goal:**
  - In the fall of 2013, teachers will begin transitioning into using a free educational social network called Edmodo to serve as a communication and collaboration tool among students, house parents, staff, and administrators. All students in grades 9 – 12 will use Edmodo as a way to communicate, access, and upload assignments.

- The goal of this implementation is to reduce the amount of server space needed for each student and reduce the cost of printing, making copies, and providing maintenance to peripheral devices. The need to train staff will occur with this transitioned.
- Each member of the Technology Planning Committee will be trained by the Learning Technologies Department in the spring of 2013. Each trained staff member will be responsible for training members within their department, during the summer of 2013 staff development day. A stipend will be paid to each member who conducts training.

### **Goal # 3 - Engage in Professional Growth and Leadership:**

- **Teachers** will continuously develop as 21<sup>st</sup> century educators through the development of effective 21<sup>st</sup> Century instructional techniques through valuable PLC's, which exhibit growth in the leadership and implementation of technology in the classroom.
- **Administrators will promote an empowering environment of professional learning, which provides staff with opportunities to** enhance student learning through the infusion of technology and scientifically-researched instructional methods. Administration will develop opportunities for staff to collaborate and experiment with 21<sup>st</sup> Century technologies with the expectation of use in the classroom.
- **Tools needed to accomplish goal:**
  - Engaging in professional growth and leadership will require supporting staff, which may have a varying range of experience with technology—from beginner to intermediate to advanced—by offering courses at varying levels. The short-term goal is to enhance users' skills to make them more efficient in using the technology their jobs require. The long-term goal is to encourage users to be life-long learners who embrace technology and use it to best serve our students.

## VI. Resources Required to Accomplish the Plan

	Hardware Item	Number needed	Single Item Purchase Price	Total Price	Indicate Budget
1	iPad 3 (16 GB)	120	\$400 (discount)	\$48,000	Capital Budget
2	iPad Data Cart with Macbook Pro	5	\$5000	\$25,000	Capital Budget
3					
4					

	Software Item	Number needed	Single Item Purchase Price	Total Price	Indicate What Budget
1	Budget for iTunes App Store			\$10,000	Operating Budget
2					
3					
4					

	Professional Development	Sessions needed	Price per session	Total Price	Indicate What Budget
1	Edmodo Training	12	\$200 stipend	\$2,400	Operating Budget
2	iPad Training	20	\$500	\$10,000	Operating Budget
3					
4					

## VII. Cost Analysis and Justification

- Professional Development is an important component of accomplishing our Technology Plan. Our total plan for the 2013-14 will cost \$12,400 in training. As stated earlier engaging in professional growth and leadership will require supporting staff, who may have a varying range of experience with technology—from beginner to intermediate to advanced—by offering courses at varying levels. The short-term goal is to enhance users' skills to make them more efficient in using the technology their jobs require. The long-term goal is to encourage users to be life-long learners who embrace technology and use it to best serve our students.
  - Each member of the Technology Planning Committee will be trained by the Learning Technologies Department in the spring of 2013. Each trained staff member will be responsible for training members within their department, during the summer of 2013 staff development day. A stipend of \$200 will be paid to 12 members of the committee, who will be responsible for training other staff members, for a total of \$2,400.
  - The Learning Technologies Department will conduct in-house training of teachers in the implementation of iPads into their classrooms. A series of mini-trainings offered during department meetings and staff development days. The budgeted amount will pay for staff and training materials for a total of \$10,000. Using an in-house training method will be more flexible in the delivery of information
- Creating a culture of creativity, communication and collaboration will require the purchase of 120 iPads, which will be divided and stored inside of 5 carts. The total costs of iPads (\$48,000) and Carts (\$25,000) were approved by the Board of Directors to come from the Capital Budget. Each cart will cost approximately \$5,000 and include a Macbook Pro, which will allow users to sync apps on each iPad. A total of \$10,000 will be set aside for the purchase of iPad apps, accessories, etc.

## VIII. Benefits

- iPads are an innovative technology, proven to increase student engagement, comprehension, and promote higher level thinking. iPads are also being used in many schools as a form of assistive technology. By providing students and staff with more iPads, we will provide opportunities for teachers to develop customized and authentic learning experiences for all students. iPads give staff unique ways of presenting information and providing memorable learning experiences.
- With the increased demand of storage space, using a free social network like Edmodo will allow students the flexibility to access, store, and submit assignments on an external site. This will reduce the storage demand on our internal network. Edmodo allows students the flexibility to access learning materials via laptop, Smartphone, and tablet. Edmodo gives teachers a forum, where students can access materials 24/7/365. Students can use the calendar function and text messaging option to track assignments. House parents can monitor their students' progress, assignments due, etc. via a special username and password.
- Staff training will enhance instructional techniques and technologies in classrooms, ultimately benefitting all students. The more staff is exposed to new technologies, the greater the opportunity to impact students.

## IX. Summary Statement

**In conclusion, meeting each of the 3 stated goals in this report will require:**

- Creating a culture of creativity and innovation requires the ability to ensure that technology does not become outdated. All technology hardware is on a cycle for renewal, which includes desktops, laptops, copiers, scanners, tablets, etc.
- All software is annually reviewed for accuracy, necessity, and cost. When possible, renewals will go through a comparison process, where alternatives may be suggested.
- Developing a culture of creativity and innovation requires monitoring of infrastructure capacity through monitoring school growth, staffing, construction plans, and systems changes along with actual statistics on the utilization of the existing infrastructure and industry standard guidelines.
- Developing excellence in communication and collaboration requires maintaining positive professional relationships through two-way communication in the form of monthly updates, response to feedback, and collaborative decision making with the needs of all students in mind.
- Providing relevant and meaningful professional development opportunities for all staff.