

# **Mansfield Public Schools**

  

## **5 Year Strategic Technology Plan**

*March, 2012*

## Committee Membership (March, 2012)

Brenda Hodges	Superintendent of Schools
Edward Vozzella	Assistant to Superintendent for Business Affairs
Lori Letendre	Technology Coordinator
Barry Cioe	Parent Representative
Heather Clang	Parent Representative
Aimee Conroy	Jordan/Jackson Elementary School Teacher
Michael Cripps	Jordan/Jackson Elementary School Teacher
Karen Elofson	Mansfield High School Teacher
Cheryl Farley	Parent Representative
Gail Farrington	Mansfield High School Teacher
Tracy Friedman	Parent Representative
Scott Gagnon	Robinson Elementary School Teacher
Patricia Harrison	Nurse Leader
Jennifer Keller	Jordan/Jackson Elementary School Teacher
Teresa Murphy	Jordan/Jackson Co-Principal
Joanne Mutchler	Jordan/Jackson Elementary School Teacher
John Nieratko	Robinson Elementary Assistant Principal
Suzanne Ryan	Qualters Middle School Assistant Principal
Eric Shultz	Qualters Middle School Teacher
Kevin Smith	Mansfield High School Teacher
Dawn Stockwell	Mansfield High School Assistant Principal
Lee Tighe	Robinson Elementary School Teacher
Scott Weiner	Parent Representative

# Executive Summary

Mansfield Public Schools is pleased to present its five-year strategic plan for educational technology. A representative committee of administrators teachers and parents, collectively known as the Technology Committee, has come together to create this plan.

Our plan starts with a basic vision for educational technology's value within our District.

*...we believe that technology is a tool for learning that expands our instructional repertoire and is the vehicle that maximizes the capacity of all teachers and learners. It is the vision of Mansfield Public Schools that students be engaged in a stimulating academic environment and a challenging curriculum that is student-centered and focused on inquiry-based learning.*

This vision is supported by a series of long-range goals. These goals are related to Curriculum, Professional Development, and Infrastructure. All of these goals are intricately interrelated and it is not possible to discuss the ways in which technology will support the curriculum without specifying how teachers will receive training in how to use technology tools. Likewise, the development of a technology infrastructure – hardware, software, networks, and technical support – is necessary to *any* technology integration effort.

# Introduction

In February, 2012 Mansfield Public Schools undertook the process of developing an updated plan for educational technology. The point of this effort was to review progress and to evaluate the needs for improved instructional technology resources at the classroom level in schools throughout the system.

The following technology plan focuses on how Mansfield can best manage its technology in terms of its ongoing use as well as expansion. Furthermore, as technology grows more sophisticated (and expensive), there are concerns about where the "limits" are for Mansfield's technology expenditures and the time and effort we will expect teachers to expend in learning how to employ these tools productively. The ultimate concern is as it has to be; that is, how should Mansfield Public Schools best employ technology in the service of student achievement?

## Guiding Principles

The Technology Committee followed these guiding principles:

- Technology is a catalyst for reformed education, but is not an end in itself.
- Improved student outcomes are the ultimate goal for all of our work.
- Curriculum drives instruction and the tools, such as technology, used in instruction.
- Technology that is not adequately supported is of no benefit at all.
- All Mansfield students and teachers, in all grades and subject areas, can make appropriate use of technology tools.
- Policies and guidelines regarding technology use should be inclusive versus exclusive.

# Vision

Mansfield Public Schools' Technology Planning has developed the following vision statement to guide its work in creating a five-year strategic plan for technology implementation:

*As described in the overall mission of the Mansfield Public Schools, the purpose of education is to prepare students to be productive and caring adults. Within this context, we believe that technology is a tool for learning that expands our instructional repertoire and is the vehicle that maximizes the capacity of all teachers and learners. It is the vision of Mansfield Public Schools that students be engaged in a stimulating academic environment and a challenging curriculum that is student-centered and focused on inquiry-based learning.*

*Specifically, we envision that technology is available and effectively supported for all students and staff:*

- *To provide global access to information*
- *To meet the curricular needs of all learners*
- *To provide access to the general curriculum*
- *To refine critical thinking skills and foster creativity*
- *To provide a medium for expression and communication*
- *To collect, assess, and share performance information*
- *To improve the effectiveness of administrative tasks*
- *To provide skills and proficiencies necessary for the workforce*

It is our intention that this vision will remain constant over the course of our plan and that it will guide the day-to-day and year-to-year implementation of technology across Mansfield Public Schools.

# Our Schools Today

## Elementary Schools

At the Roland Green Pre-School, there are approximately 15 computers that are used by teaching staff to run various software programs to support the special needs of their students. The majority of the computers are Pentium 4 with processor speeds ranging from 2.0 Ghz to 3.4 Ghz and all connect to the network and Internet. Students at Roland Green rarely use the computers. Roland Green currently has 2 SMARTBoards installed for use with the students and they make use of FM Sound Systems to enhance the education of students.

At the Robinson Elementary School, there are approximately 172 computers throughout the school. The quality of the computers range from Pentium 4 (2.0 Ghz - 3.4 Ghz) to Dual Core (1.8 Ghz -2.4 Ghz) that are all connected to the Internet and Network. In addition, there is a computer lab with 30 Dual Core machines. Teachers bring their students to the computer lab on a bi-weekly basis for 40-minute periods to use various software programs to support the Massachusetts Technology Frameworks. A small number of teachers have classroom inkjet printers, but most teachers share network printers located throughout the building. The majority of classrooms at the Robinson Elementary School have a SMARTBoard installed for use with the students and they make use of FM Sound Systems as well. Students and staff at the Robinson Elementary School make use of document cameras, digital cameras and digital video cameras as well to enhance the education of students.

At the Jordan/Jackson Elementary School, there are approximately 237 computers throughout the school. The quality of the computers range from Pentium 4 (2.0 Ghz – 3.4 Ghz) to Dual Core (1.8 Ghz – 2.4 Ghz) that are all connected to the Internet and Network. In addition, there is a computer lab with 30 Dual Core computers and 13 “PODS” of Dual Core computers located outside of classrooms. A small number of teachers have classroom inkjet printers, but most teachers share network printers located throughout the building. The majority of classrooms at the Jordan/Jackson Elementary School have a SMARTBoard installed for use with the students and they make use of FM Sound Systems as well. Students and staff at the Jordan/Jackson Elementary School make use of document cameras, digital cameras, digital video cameras, and Alphasmarts as well to enhance the education of students.

Computer use at the elementary school focuses on age appropriate software programs that address the Massachusetts Technology Frameworks. Programs such as Easy Tech, Type to Learn Jr., Type to Learn 3, Reading Street, Hyperstudio, Science Court, Time Liner, Kidspiration, Math Blaster, Math Muncher, Lexia, IXL and Pearson Success Net, are all used to address the state standards. In addition, the Microsoft Office suite and the Internet are used as well.

## Qualters Middle School

At the Qualters Middle School, there are approximately 252 computers throughout the school. The quality of computers range from Pentium 4 (2.0 Ghz – 3.4 Ghz) to Dual Core (1.8 Ghz – 2.4 Ghz) that

are all connected to the network and Internet. There are 2 computer labs with 32 Pentium 4 or Dual core machines. One lab is dedicated to a computer applications teacher, and the second lab is used throughout the day by various teachers to support the curriculum. A small number of teachers have classroom inkjet printers, but most teachers share network printers located throughout the building. The majority of classrooms at the Qualters Middle School have a SMARTBoard installed for use with the students and they make use of FM Sound Systems as well. Students and staff at the Qualters Middle School make use of document cameras, digital cameras and digital video cameras as well to enhance the education of students.

Computer use at the middle school varies by subject matter. As part of the specialist curriculum, students are exposed to programs such as word processing, excel spreadsheets, PowerPoint and access. In other subject areas, these same programs are used in conjunction with the content specific programs and the Internet for research projects.

### **Mansfield High School**

At Mansfield High School there are approximately 444 computers throughout the school. The quality of computers range from Pentium 4 (2.0 Ghz – 3.4 Ghz) to Dual Core (1.8 Ghz – 2.4 Ghz) that are all connected to the network and Internet. There are 7 computer labs at the high school supporting various departments as follows:

Business Department – 2 labs  
Math Department – 1 lab  
Science Department – 1 lab  
English Department – 1 lab  
Art Department - 1 lab  
Library / Media Center – 1 lab

A small number of teachers have classroom inkjet printers, but most teachers share network printers located throughout the building.

Computer use at Mansfield High School varies widely. Primary uses are as follows:

Word Processing	Excel Spreadsheet
PowerPoint Presentation	Internet Research
Visual Basic	Art in Technology
GIS	Geometers Sketchpad
Career / Future Planning	Web Page Design
Automated Accounting	JAVA
TI Navigator	MCAS Preparation

There are 2 laptop carts consisting of a Dual Core laptops, wireless router and laser printer that are primarily used in the Social Studies and Science departments.

The majority of classrooms at the Mansfield High School have a SMARTBoard installed for use with the students and they make use of FM Sound Systems as well. Students and staff at Mansfield High School make use of document cameras, digital cameras and digital video cameras as well to enhance the education of students.

The Mansfield Public Schools has approximately 4,800 students and 600 staff members.

# Benchmark 1

## Commitment to a clear vision and implementation strategies

- A. The district’s technology plan contains a clearly stated and reasonable set of goals and implementation strategies that align with the district-wide school improvement plan. The district is committed to achieving its vision by the end of the school year 2014-2015.**

**The Vision of the Mansfield Public Schools is to:**

- *To provide global access to information*
- *To meet the curricular needs of all learners*
- *To provide access to the general curriculum*
- *To refine critical thinking skills and foster creativity*
- *To provide a medium for expression and communication*
- *To collect, assess, and share performance information*
- *To improve the effectiveness of administrative tasks*
- *To provide skills and proficiencies necessary for the workforce*
- *To provide the training necessary for students and staff to achieve a level of proficiency using information technologies*

- B. The district has a technology team with representatives from a variety of stakeholder groups, including school committee members, administrators, and teachers. The technology team has the full support of the school superintendent to implement the plan.**

### Committee Membership (March, 2012)

Technology Committee Member	Role
Brenda Hodges	Superintendent of Schools
Edward Vozzella	Assistant to Superintendent for Business Affairs
Lori Letendre	Technology Coordinator
Barry Cioe	Parent Representative
Heather Clang	Parent Representative
Aimee Conroy	Jordan/Jackson Elementary School Teacher
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**C. Needs Assessment**

**a. The district assesses the technology products and services that will be needed to improve teaching and learning**

<b>Current Status</b>	The Superintendent, Building Principals, Technology Coordinator and Department Chairs work together to identify, assess and evaluate technology products and services that will enhance and/or support the curriculum. Assessments and evaluations are done together as a group to ensure standardization across the school and/or district.
<b>Our Goals</b>	<ol style="list-style-type: none"> <li>1. To continue collaborative effort among school personnel to identify technology products and services that will improve teaching and learning</li> <li>2. To comply with DESE on line data collection and curriculum standards</li> </ol>

**b. The technology plan includes an assessment of the services and products that are currently being used and that the district plans to acquire.**

<b>Current Status</b>	The technology department maintains a district-wide inventory of software / hardware being used across the district. School building administrators solicit feedback from staff on software/hardware needs and communicate those needs with the appropriate personnel (Superintendent, Building Principal, Technology coordinator and/or Department Chairs) for further evaluation.
<b>Our Goals</b>	Continue as planned/feedback

**D. Budget**

**a. The district recognizes that technology plays a critical role in achieving its goals. The district has a budget that will ensure the implementation of its long-range technology plan.**

<b>Current Status</b>	All departments at the Mansfield Public Schools work collaboratively to identify long-range technology goals that are attainable and sustainable. As part of that process, the appropriate budgeting measures are taken to ensure that we are able to reach those goals. Initiatives that exceed the possibilities of the operational budget are brought to the Superintendent for funding consideration through capital improvements.
<b>Our Goals</b>	Seek additional funding outside of operational budget

- b. The budget includes staffing, infrastructure, hardware, software applications, professional development, support and contracted services.**

<b>Current Status</b>	The Mansfield Public Schools budget includes line items for each of the categories listed above. The funding for each category may come from a different section of the budget, but all categories are taken into consideration when developing the budget.
<b>Our Goals</b>	Continue ongoing process

- c. The district seeks funding for technology programs from federal, state and private resources, as well as from academic departments that are supported by technology. The district explores ways that technology can reduce costs and create efficiencies in other areas in the district budget.**

<b>Current Status</b>	On a yearly basis, the Mansfield Public Schools apply for federal E-Rate funding for qualified services such as telephones and Internet connectivity. In 2011-2012, we were awarded \$19,485.94 in E-rate funding. There is collaboration across academic departments for budgetary support for technology items.
<b>Our Goals</b>	Continue ongoing process.

- d. For districts that plan to apply for E-Rate reimbursements, the technology plan specifies how the district will pay for the non-discounted portion of their costs for the services procured through E-Rate.**

<b>Current Status</b>	The Mansfield Public Schools are able to support the non-discounted portion of our costs for services procured through E-Rate through our operational budget.
<b>Our Goals</b>	Continue ongoing process

**E. Evaluation**

- a. The district routinely consults with technology staff before purchasing technology items, to ensure that the items are appropriate, cost-effective, and sustainable.**

<b>Current Status</b>	The technology department routinely works with the Superintendent, Building Principals, and Department Chairs to discuss technology purchases to ensure that they align with district goals, are compatible with our infrastructure, are cost-effective and can be supported.
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<b>Our Goals</b>	Continue to work together as a team to achieve technology goals.
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- b. The district’s technology plan includes an evaluation process that enables it to monitor its progress in achieving its goals and to make mid-course corrections in response to new developments and opportunities as they arise.**

<b>Current Status</b>	On a yearly basis, the district is responsible for completing a technology plan update for the Department of Elementary and Secondary Education. The update is developed based on collaboration of district personnel.
<b>Our Goals</b>	Continue ongoing process

# Benchmark 2

## Technology Integration and Literacy

### A. Technology Integration

- a. **Outside Teaching Time – At least 90% of teachers use technology every day, including some of the following areas: research, lesson planning, organization, administrative tasks, communication, and collaboration. Teachers explore evolving technologies and share information about technology uses with their colleagues.**

<b>Current Status</b>	All classrooms throughout the district have access to the Internet and teachers are using technology on a daily basis to submit electronic attendance, and to communicate via email. The majority of our classrooms K-12 are equipped with a SMARTBoard and ceiling mounted projector connected to the teacher workstation allowing teachers to utilize PC and Internet resources to support the curriculum.
<b>Our Goals</b>	Increase use of shared drive at schools.

- b. **For Teaching and Learning – At least 90% of teachers use technology appropriately with students every day to improve student learning of the curriculum. Activities include some of the following: research, multimedia, simulations, data analysis, communications, and collaboration. Teachers integrate evolving technologies that enhance student interest, inquiry, analysis, collaboration and creativity.**

<b>Current Status</b>	Evidence of meeting this goal varies across the district due to the content focus at each school and varied professional development opportunities to staff. Teaching staff is utilizing SMARTBoards, Internet resources and a variety of software tools to assist with the curriculum.
<b>Our Goals</b>	Continue professional development with staff to achieve this goal

### B. Technology Literacy

- a. **At least 90% of eighth grade students show proficiency in all the *Massachusetts Technology Literacy Standards and Expectations* for grade eight.**

<b>Current Status</b>	Informal observations indicate that we are not currently meeting this proficiency by eighth grade. Limited staffing and scheduling considerations limit the time students are exposed to a formal technology curriculum.
<b>Our Goals</b>	Increase funding for staff for new classes. Formal instruction at elementary level.

- b. 100% of teachers are working to meet the proficiency level in technology, and by the school year 2014-2015, 90% of teachers will have mastered 90% of the skills in the Massachusetts Technology Self-Assessment Tool (TSAT)**

<b>Current Status</b>	A survey was conducted in March 2012 to gauge where we are as a district in meeting the skills outlined in the TSAT. It is clear that we have some professional development needs across the district in a number of the skills listed.
<b>Our Goals</b>	Address needs listed in survey

**C. Staffing**

- a. The district has a district-level technology director/coordinator.**

<b>Current Status</b>	The district Technology department consists of a Technology Coordinator, a Network Specialist, Technology Integration / Data Specialist and a PC Technician.
<b>Our Goals</b>	Maintain position

- b. The district provides one FTE instructional technology specialist per 60-120 instructional staff to coach and model.**

<b>Current Status</b>	The district does not currently meet the state guidelines for instructional technology teachers. Currently there is one FTE for the entire district.
<b>Our Goals</b>	Increase technology support staff

- c. The district has staff specifically dedicated to data management and assessment**

<b>Current Status</b>	1.0 FTE positions in the Technology Department are responsible for data management and assessment.
<b>Our Goals</b>	Maintain staffing

# Benchmark 3

## Technology Professional Development

- A. At the end of five years, at least 90% of the district staff will have participated in high-quality, ongoing professional development that includes emerging technology issues, technology skills, universal design, and research-based models of technology integration.**

<b>Current Status</b>	The Technology department does not currently have the capacity to offer this amount of professional development to all staff across the district.
<b>Our Goals</b>	To provide teachers and staff with professional development opportunities, resources, incentives, and time necessary to enable the use of appropriate technologies in support of the Mansfield Public schools curriculum.
<b>Evaluation Measure</b>	Utilize survey tools to identify staff professional development as a measure against previous years to determine progress.

- B. Technology professional development is sustained an ongoing and includes coaching, modeling best practices, district-based mentoring, study groups, and online professional development.**

<b>Current Status</b>	Each summer, a Mansfield Summer Institute catalog is published from Central Office identifying professional development opportunities for staff. The offerings are in a wide variety of content areas and are aligned to district goals. In addition, the district utilizes early release days, professional development days, before school and after school meetings to address PD needs of the staff.
<b>Our Goals</b>	To identify and utilize multiple formats to address Professional Development with current resources available.
<b>Evaluation Measure</b>	Develop a resource list for staff to refer to and access.

- C. Professional development planning includes an assessment of district and teachers' needs. The assessment is based on the competencies listed in the Massachusetts Technology Self-Assessment Tool.**

<b>Current Status</b>	As a district, we utilize formal surveys through Survey Monkey, as well as informal observations to drive the direction of professional development offerings throughout the district.
<b>Our Goals</b>	To increase awareness of the district's use of survey tools as a planning tool for professional development. To improve participation rate of professional development surveys

<b>Evaluation Measure</b>	Measurement of staff participation
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**D. Administrators and teachers consider their own needs for technology professional development.**

<b>Current Status</b>	Mansfield Public Schools Administrators and teachers consider their own needs for professional development and seek out opportunities to fulfill those needs both inside and outside of the district offerings.
<b>Our Goals</b>	<ol style="list-style-type: none"> <li>1. Identify existing staff and resources that are available within the district to increase professional development.</li> <li>2. Develop a communication forum for staff to share professional development opportunities outside of the district.</li> </ol>
<b>Evaluation Measure</b>	<ol style="list-style-type: none"> <li>1. Develop a staff resource database of staff technology experts.</li> <li>2. The tool itself</li> </ol>

# Benchmark 4

## Accessibility of Technology

### A. Hardware Access

- a. **By 2014-2015, the district has an average ratio of one high-capacity, Internet-connected computer for each student. (The Department will work with stakeholders on a regular basis to review and define high-capacity computers).**

<b>Current Status</b>	The Mansfield Public Schools currently has 1,385 computers across the district for staff and student use. Our enrollment number significantly exceeds this number. We will work toward expanding the infrastructure and equipment to move closer to this goal.
<b>Our Goals</b>	To expand the district infrastructure and amount of equipment by increasing the number of high-capacity, Internet connected computers, peripherals and network resources available to students and staff.
<b>Evaluation Measure</b>	Annual inventory of equipment

- b. **The district provides students with emerging technologies appropriate to their grade level.**

<b>Current Status</b>	The Superintendent, building Principals, Department Chairs, and Technology Coordinator work together to identify appropriate technologies to support the curriculum at each grade level.
<b>Our Goals</b>	To develop a technology sub-committee to identify appropriate emerging technologies for use at each grade level and establish a plan to provide these technologies.
<b>Evaluation Measure</b>	Established sub-committee and plan for implementing technologies

- c. **The district maximizes access to the general education curriculum for all students, including students with disabilities, using universal design principles and assistive technology devices.**

<b>Current Status</b>	The Mansfield Public Schools promotes access to general education curriculum for all students, including students with disabilities. The Special Education department staff communicates assistive technology needs of students with building principals, guidance staff, teaching staff and the technology department.
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<b>Our Goals</b>	To provide Mansfield's special education students with the tools necessary to access the general curriculum as set by local, state and federal guidelines.
<b>Evaluation Measure</b>	District's response to identified student needs

**d. The district has procurement policies for information and instructional technologies that ensure usability, equivalent access, interoperability and SIF compliance.**

<b>Current Status</b>	The district follows a 20% computer replacement plan per year and computers are replaced based on the inventory of computers across the district with the lowest specs and/or where emerging technologies are being introduced that would require new computers.
<b>Our Goals</b>	To increase the district computer replacement plan to 25% per year based on computers with the lowest specs and/or emerging technologies
<b>Evaluation Measure</b>	Determine the number of computers replaced per year.

**e. The district provides technology-rich classrooms, with access to devices such as digital projectors, electronic whiteboards, and student response systems.**

<b>Current Status</b>	The majority of classrooms across the district are equipped with SMARTBoards and digital projectors. Some classrooms have document cameras. QMS currently has 14 sets of Smart Response Systems and Jordan/Jackson has 2 sets.
<b>Our Goals</b>	Equip each classroom with a SMARTBoard and digital projector and increase the number of document cameras and student response systems at each school in the district as appropriate
<b>Evaluation Measure</b>	Annual inventory of equipment

**f. The district has established a computer replacement cycle of five years or less**

<b>Current Status</b>	The district follows a 20% per year replacement plan which meets the 5 year cycle.
<b>Our Goals</b>	To increase the computer replacement cycle to 25% per year based on computers with the lowest specs and/or emerging technologies.
<b>Evaluation Measure</b>	Determine the number of computers replaced per year

**B. Internet Access**

- a. The district provides connectivity to the Internet for all computers in all classrooms in all schools, including wireless connectivity.**

<b>Current Status</b>	All computers in all classrooms in all schools are connected to the network and the Internet. There are currently a very limited wireless connectivity
<b>Our Goals</b>	Develop a plan to implement wireless connectivity in all schools in the district.
<b>Evaluation Measure</b>	Developed implementation plan

- b. The district provides an external Internet connection to the Internet Service Provider (ISP) of 100 Mbps per 1,000 students/staff.**

<b>Current Status</b>	Internet connectivity through our ISP is 50 Mbps/10 Mbps
<b>Our Goals</b>	Expand internet bandwidth

- c. The district provides bandwidth of at least 10/100/1000 to each classroom. At peak, the bandwidth of each computer is at least 100 kbps. The network card for each computer is at least 10/100/1000.**

<b>Current Status</b>	The majority of computers across the district meet this specification. There are approximately 47 computers on the network that do not meet this specification; however, these are scheduled to be replaced in FY 13.
<b>Our Goals</b>	Meet bandwidth requirement

**C. Networking (LAN/WAN)**

- a. The district provides internal wide area network (WAN) connections from the district to each school between schools of at least 1 Gbps per 1,000 students/staff**

<b>Current Status</b>	The Mansfield Public Schools provides fiber connection to our wide area network (WAN) between each building which exceeds this requirement
<b>Our Goals</b>	Maintain fiber network

- b. The district provides access to servers for secure file sharing, backups, scheduling, email, and web publishing, either internally or through contracted services.**

<b>Current Status</b>	Staff and students are provided with access to file storage on secure servers on the network. All staff members are provided with email storage on a secure server. All servers are backed up on a nightly basis with redundancy and disaster recovery considerations.
<b>Our Goals</b>	Improve/expand access

**D. Access to the Internet Outside the School Day**

- a. The district provides access to its computer labs before and after school to ensure that students and staff have adequate access to the Internet outside of the school day.**

<b>Current Status</b>	The Mansfield Public Schools allow students access to computers before and after the school day. The level of access varies at each school depending on the supervision needs of the students.
<b>Our Goals</b>	To provide adequate staffing and regularly scheduled access to computer labs before and after school.
<b>Evaluation Measure</b>	Scheduled computer availability at each school in the district

- b. The district disseminates a list of up-to-date places where students and staff can access the Internet after school hours.**

<b>Current Status</b>	Students and staff are referred to the public library as a location where they can access the Internet after school hours.
<b>Our Goals</b>	To provide an accurate list of places where students and staff can access the Internet after school hours
<b>Evaluation Measure</b>	List of available Internet locations in the town of Mansfield after school hours.

**E. Staffing**

- a. The district provides staff or contracted services to ensure that its networking is functioning at all times.**

<b>Current Status</b>	The Technology Coordinator and Network Specialist are responsible for overseeing the performance of the network at all times. If an issue arises that requires assistance above and beyond our internal expertise, we have a relationship with a local contracted vendor
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<b>Our Goals</b>	To increase district staff to ensure the growing network is functioning at all times
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- b. The district resolves technical problems within 24 hours, so that they do not cause major disruptions to curriculum delivery. The district provides clear information about how to access technical support, which can be provide in person or remotely.**

<b>Current Status</b>	The Technology Department provides support via email, telephone, remote connection, and in person. When an issue is reported to the help desk, a priority is determined based on several factors, including the impact to curriculum delivery. Issues with a high impact are escalated as highest priority, and lower priority issues are entered into our ticketing system and addressed on a date/priority basis. We strive to address all issues within 3-5 working days.
<b>Our Goals</b>	Resolve all technological problems within 1-3 days of reported issue
<b>Evaluation Measure</b>	Report outlining resolution of technology tickets

- c. The district provides at least one FTE person to support 400 computers.**

<b>Current Status</b>	Mansfield falls short of providing this level of support. We currently have 1,385 computers in the district with just one FTE dedicated to their support.
<b>Our Goals</b>	To increase the technology staff by 2 FTEs
<b>Evaluation Measure</b>	Technology staff list

# Benchmark 5

## Virtual Learning and Communications

### A. The district encourages the development and use of innovative strategies for delivering high-quality courses through the use of technology.

<b>Current Status</b>	The Mansfield Public Schools encourage staff to utilize technology and innovative strategies for delivering high quality curriculum to all students. Staff members present ideas and needs to their building principal and/or department chair for approval.
<b>Our Goals</b>	<ol style="list-style-type: none"> <li>1. Increase the level of comfort that teachers have with technology. This is dependent on a commitment from the community and district to teacher training.</li> <li>2. An improvement in student engagement during class.</li> <li>3. Teachers incorporate more technology into their courses</li> </ol>
<b>Evaluation Measure</b>	<ol style="list-style-type: none"> <li>1. Take a survey of teacher's comfort level at the beginning of the year, and then at the end of the year to compare their comfort level.</li> <li>2. Evaluators gauge the level of student's engagement at different times or without technology vs. with technology.</li> </ol>

### B. The district deploys IP-based connections for access to web-based and/or interactive video learning on the local, state, regional, national, and international level.

<b>Current Status</b>	The networking infrastructure allows for IP-based video streaming, however, at times results in network performance issues. The Technology department has plans for FY13 to research options for improving this access.
<b>Our Goals</b>	<ol style="list-style-type: none"> <li>1. Improve network infrastructure to increase steaming accessibility.</li> <li>2. Utilize streaming to provide professional development to staff.</li> </ol>
<b>Evaluation Measure</b>	<ol style="list-style-type: none"> <li>1. Use district monitoring tools.</li> </ol>

### C. Classroom applications of virtual learning courses, collaborative projects, field trips and discussions.

<b>Current Status</b>	Classroom applications of e-learning include web quests, virtual manipulatives, and virtual field trips. The majority of this content is driven by building principals and/or department chairs in alignment with the curriculum.
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<b>Our Goals</b>	<ol style="list-style-type: none"> <li>1. Create links on district website to share relevant webquests, projects, and virtual field trips.</li> <li>2. Develop a process of sharing class applications, and determine how often those applications are reviewed.</li> </ol>
<b>Evaluation Measure</b>	<ol style="list-style-type: none"> <li>1. Develop a report of percentage of use by grade/subject.</li> </ol>

**D. The district maintains and up-to-date website that includes information for parents and community members.**

<b>Current Status</b>	The district maintains an up-to-date website with information for parents and community members. Responsibility for maintaining the website is shared with building representatives across the district to ensure that information is posted in a timely manner. The district has plans to improve/restructure the website in the next five years.
<b>Our Goals</b>	<ol style="list-style-type: none"> <li>1. Incorporate principals' e-newsletters into the district/school website.</li> <li>2. Share current district/school information via the e-backpack.</li> <li>3. Include a "spotlight on classrooms" on the district/school website.</li> <li>4. Increase teacher websites. This could include pod/department websites.</li> <li>5. Explore the value of utilizing social networks to communicate with the community.</li> </ol>
<b>Evaluation Measure</b>	<ol style="list-style-type: none"> <li>1. Measure frequency of changes for the district and school websites.</li> <li>2. Measure change in number of teacher/group websites and frequency of updates.</li> </ol>

# Benchmark 6

## Safety, Security and Data Retention

**A. The district has a CIPA compliant Acceptable Use Policy (AUP) regarding Internet and network use. The policy is updated as needed to ensure safe and ethical use of resources by teachers and students.**

<b>Current Status</b>	Mansfield does have CIPA compliant AUP that is reviewed yearly by the Superintendent, School Committee, building principals and the technology department to ensure safe and ethical use of resources by all Mansfield users.
<b>Our Goals</b>	Modify AUP to support most current technology and for it to remain up-to-date
<b>Evaluation Measure</b>	Remain AUP compliant

**B. The district educates teachers and students about inappropriate online behavior. Topics include cyberbullying, potential risks related to social networking sites and chat rooms, and strategies for dealing with these issues.**

<b>Current Status</b>	The Mansfield Public Schools educate teachers and students about appropriate online behavior through online resources, assembly presentations and classroom discussions.
<b>Our Goals</b>	Add to the library of resources that will be created Utilize the National Association of Elementary School Principals Bullying Prevention and Intervention tool
<b>Evaluation Measure</b>	Monitor for inappropriate online behavior.

**C. The district has a plan to protect the security and confidentiality of personal information of its students and staff.**

<b>Current Status</b>	The Mansfield Public Schools has a plan to protect the security and confidentiality of personal information of its students and staff.
<b>Our Goals</b>	Refine the existing plan designed to protect security and confidentiality of personal information to meet existing needs.
<b>Evaluation Measure</b>	Remain a secure system.

**D. The district complies with federal and state law, and local policies of archiving electronic communications produced by its staff and students. The district informs staff and students that any information distributed over the district or school network may be public record.**

<b>Current Status</b>	The Mansfield Public Schools comply with federal laws, state laws, and local policies for the protection, security and confidentiality of personal information. Through our acceptable use policy (AUP), staff is informed that information distributed over the district or school network may be public record.
<b>Our Goals</b>	Remain up to date with federal and state law, local policies for archiving electronic communications produced by Mansfield Schools.
<b>Evaluation Measure</b>	Remain federal and state law compliant

# How Students and Staff Use Technology

Staff members were surveyed in February, 2012 regarding the instructional technology and its implementation across the district.

	I use this technology/skill	I create lessons which require students to use this technology/skill	I would like to learn more about this technology/skill
Identify components of a computer system	91.1%	8.0%	8.9%
Connect cables and cords correctly so that a computer is functional	78.0%	2.0%	22.4%
Save/Retrieve a file to/from local hard drive, portable device or online storage location	84.9%	16.7%	15.5%
Use basic editing and formatting features of a word processing program	93.4%	26.1%	5.1%
Use more advanced editing and formatting features of a word processing program	85.9%	16.4%	15.6%
Create spreadsheets, entering simple formulas, applying formatting	57.9%	4.3%	46.4%
Import/Export and link data between spreadsheets and other applications	35.4%	2.2%	67.7%
Create a simple multimedia presentation and explain the terminology	62.5%	20.8%	37.1%
Design, create, modify and manipulate a simple database	31.9%	2.5%	70.6%
Use correct terminology in speaking about the Internet	70.9%	9.4%	32.1%
Use navigation features of the Internet	86.7%	12.5%	16.5%
Select a strong/secure password and keep it safe	91.6%	4.4%	8.8%
Send an email attachment / receive an email attachment and save it to an appropriate	93.0%	12.4%	7.0%

location			
Recognize and work with a variety of different multimedia and document formats	62.1%	7.0%	42.0%
Explain potential problems viruses and other malware create and understand practical methods of prevention	37.3%	1.8%	65.9%
Explain how media and technology can be used to distort or exaggerate information	60.8%	21.7%	38.2%
Use basic assistive technology features (change text size, change mouse controls)	83.1%	11.2%	20.2%
Cite electronic sources in accordance with academic standards	56.0%	22.9%	41.7%
Explain and demonstrate ethical and legal behavior when copying/downloading files, applications and media	68.4%	15.3%	34.0%
Evaluate a website's validity as a source for information	58.0%	20.5%	42.0%
Use digital and online tools to communicate with teachers, parents and create/distribute classroom materials	77.1%	7.2%	28.0%
Design and develop lessons and activities that integrate technology in a variety of instructional settings for all students	62.3%	23.6%	46.2%
Use technology to differentiate instruction for all learners	60.0%	17.6%	47.1%
Use applications (spreadsheets, databases, etc) to organize curriculum specific information into charts, tables and diagrams	49.3%	2.0%	56.2%
Use technology to enhance your curriculum	71.7%	11.9%	42.5%
Use the Internet to learn about the effective use of technology in teaching	65.7%	5.1%	44.4%

# Future Goals

The Mansfield Technology Planning Committee has developed implementation goals for its five-year vision of technology's role in teaching and learning. These goals are separated into three broad areas: Curriculum, Professional Development, and Infrastructure. Goals for each of these groups are presented in this chapter of our Strategic Plan.

It is important to note that the goal groups we have defined are not mutually exclusive. In many cases, it would be possible to list a goal from one group (e.g., Curriculum) in another (e.g., Professional Development). The Committee does not believe that this is a structural problem with its plan. Rather, we believe that this overlap is indicative of the holistic and systemic nature of technology as a tool for educational improvement and change. Technology in and of itself is just a tool; it is how that tool is *applied* that makes it a catalyst for change. Our plan, and hence our goals, are about how technology tools will be applied systemically throughout the school system, in all of our classrooms, so as to benefit all Mansfield students.

# Curriculum

In order to achieve our vision, technology will be embedded into the curriculum to maximize teaching and learning. To make technology an effective teaching and learning tool, teachers across the system must integrate it into the daily curriculum to support a variety of learning styles and provide our students with a range of experiences. All of these curriculum-related goals and objectives are targeted at the same ultimate goal -- the promotion of student success in a rapidly changing technological society.

## Curriculum Goals

1. To utilize technology as an effective learning tool in support of the Massachusetts Curriculum Frameworks.
  - To embed technology into the curriculum as an effective tool for teaching and learning.
2. To utilize technology to support a variety of learning styles, learning skills, and levels of understanding in the application of knowledge.
  - To develop an instructional technology curriculum overlay for implementation in all appropriate areas of curriculum.
3. To provide our students with a range of experiences designed to develop the technological skills necessary to function responsibly in life situations marked by rapid technologic change.
  - To prepare students to choose appropriate technologies that demonstrate their knowledge and understanding

# Professional Development

In order to achieve our vision, teachers across the system must integrate technology in daily curriculum. Teachers will be given professional development so that they can use technology daily in all aspects of their duties and responsibilities. The overview of this professional development is to provide teachers the time and resources to become productive and effective users of technology.

## Professional Development Goals

1. To provide teachers and staff with the professional development opportunities, resources, incentives, and time necessary to enable the use of appropriate technologies in support of the Mansfield Public Schools curriculum
  - To develop teachers' understanding of the role of technology as a tool for learning (vs. just a productivity tool) that supports the Massachusetts Curriculum Frameworks
  - To investigate national and state standards for student and teacher use
  - To develop an understanding of where technology tools map to specific curriculum areas
  - To be trained to critically evaluate and select technology and technology use
2. To provide Mansfield's special education staff with the tools, training, and information necessary to enable them to meet expectations for reporting and promoting access to the general curriculum, as set by local, state, and federal guidelines
  - Providing training to improve knowledge of options and skills in using IEP and test scoring software as well as assistive technology.
3. To provide teachers and staff with professional development as necessary to make them proficient users of technology tools and resources that support teacher productivity
  - Defining standards for how teachers are to use productivity tools
  - Providing ongoing and systematic training

# Infrastructure

Infrastructure is more than just computers. It is the vehicle that carries the technology of Mansfield Public Schools. In order to integrate technology into our schools we need to have available high quality, reliable, equipment and software. Our goal is to provide the hardware, software and support to help teachers seamlessly imbed technology into the everyday curriculum expanding our instructional repertoire and maximizing the capacity of all teachers and learners.

## Infrastructure Goals

1. To provide technical support as necessary for all Mansfield Public Schools staff and students to efficiently use technology in their teaching, learning and administrative tasks
  - Creating expectations
  - Staffing
  - Providing ongoing support
2. To provide, support, and maintain adequate hardware devices, peripherals, and network resources for Mansfield's staff and students
  - Analyzing current and anticipated future needs
  - Researching and analyzing options
  - Creating standards
  - Implementation
3. To standardize, evaluate, update, and support software that serves the present and anticipated needs of all staff and students
  - Working with curriculum and professional development goals/actions to assess needs
  - Creating structures for evaluation and implementation
  - Implementation and ongoing support
4. As part of the annual budget process, the district's infrastructure needs will be assessed, updated and articulated.
  - This annual review will provide the basis for Mansfield's annual updates of its Local Technology Plan as required by the Massachusetts Department of Education.

# Evaluation Plan

## An Evaluation Process for Educational Technology

Mansfield Public Schools believes that evaluation is critical to the progress of its educational technology plan.

### Evaluation Data Collection and Analysis

Data collection will be designed in response to the evaluation rubrics developed by the District. The point of data collection is to gather information that will enable Mansfield to "answer" the evaluation questions and "score" our performance on the evaluation rubrics.

While the exact nature of Mansfield's data collection effort will be determined by the District's particular evaluation rubrics, existing data, and time restraints, we would expect that our data will contain the following:

- Surveys -- Our surveys will be of teachers, administrators, students, and/or community members. Unique surveys are created for each target population.
- Focus Group Interviews -- We expect to interview teachers (one group at each school), administrators, and technology staff.
- Classroom Observations -- Our team of evaluators will spend time in schools and classrooms throughout the District. Our goal is not to only observe teachers and students using technology. Rather, we find that we can learn much about how technology is being used to impact teaching and learning by observing classroom setups, teaching styles, and student behaviors.
- Artifact Analysis -- Our team will develop an assessment protocol of student technology work. This assessment will focus on an examination of how students at different grade levels and in different subject areas have used technology to enrich content-area (curriculum) learning. We will work with the evaluation committee and school administrators to develop an accurate sample of student work for this assessment.

Our evaluation will not rely on a single data source (e.g., surveys). Rather, we have designed a data collection *strategy* that has the optimum chance of capturing the big picture of technology's use and impact within Mansfield schools.

The outcomes of this part of our evaluation process will be:

- Creation of data collection instruments
- Data collection
- Data analysis

## Use of Evaluation Data

Our evaluation work will serve a multitude of purposes. First and most importantly, our evaluation effort will formatively guide the implementation of technology as an integrated tool for teaching and learning in Mansfield Schools. The regular data collection, benchmarking, and reporting of findings will draw attention to the value we place on technology integration and the degree to which we hold ourselves accountable for effective use of technology.

Second, we will use evaluation as a way of continually updating our five-year plan. While annual plan updates are required by the Massachusetts Department of Education, we also intend our plan to be a living document that is supported by an on-going planning, review, and evaluation effort. Beyond the creation of this initial document, our technology planning committee will be maintained as a plan updating and evaluation group.

## Funding Strategies

Mansfield's technology initiative will require a variety of funding strategies.

The Mansfield Schools will consider all of the following strategies in its search for ways to fund all aspects of its five-year technology plan:

- Inclusion of technology support in the annual operating budget.
- Inclusion of classroom and computer lab hardware as well as network infrastructure (wiring, distribution systems, etc.) in capital improvement budgets.
- Earmarking of entitlement (federal and state) funds to support some aspects of the plan (e.g., professional development, curriculum work, and software and hardware acquisition).
- Pursuit of federal, state, and foundation grants that can support particular aspects of the District's technology plan -- specifically professional development and curriculum integration work.
- Using the Universal Service Fund ("e-rate") to fund portions of networking expenses such as network infrastructure modernization.

# Roles and Responsibilities

Implementation of Mansfield's technology plan will require the focused attention of a number of staff members and groups within the District.

