

TECHNOLOGY PLAN

2004 – 2007

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APPROVED BY NORTON SCHOOL COMMITTEE

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THE NORTON PUBLIC SCHOOL SYSTEM DOES NOT DISCRIMINATE ON THE BASIS OF AGE, RACE,
COLOR, NATIONAL ORIGIN, SEX, DISABILITY, RELIGION, OR SEXUAL ORIENTATION.

TABLE OF CONTENTS

TECHNOLOGY TEAM MEMBERS.....	3
NORTON PUBLIC SCHOOLS TECHNOLOGY VISION	4
TECHNOLOGY GOALS	5
CURRICULAR AND INSTRUCTION.....	5
TEACHER PERFORMANCE.....	5
SYSTEM MANAGEMENT	5
COMMUNICATION	5
BACKGROUND	6
COMPOSITION OF THE COMMUNITY	6
SCHOOL COMMITTEE	6
OFFICE OF THE SUPERINTENDENT	6
PRINCIPALS	6
TECHNOLOGY IN THE SCHOOLS	7
OVERVIEW OF THE TECHNOLOGY PLANNING PROCESS.....	7
SOFTWARE PRIORITIES.....	7
<i>Administrative and Management</i>	7
<i>Communications and Information Access</i>	8
<i>Instructional and Curricular</i>	8
HARDWARE, FACILITIES, AND NETWORK PRIORITIES	8
<i>Hardware</i>	8
<i>Facilities: Network Design</i>	8
<i>Building and Classroom Wiring Standards</i>	8
<i>Implementation Issues</i>	8
OPERATIONS, MANAGEMENT, AND UPGRADE PRIORITIES	9
TECHNOLOGY IMPLEMENTATION ACTION PLAN.....	10
SOFTWARE PROCUREMENT	10
HARDWARE, FACILITIES, AND NETWORK ACQUISITION/IMPLEMENTATION	11
OPERATIONS, MAINTENANCE, AND UPGRADES.....	12
PROFESSIONAL DEVELOPMENT	16
ADDITIONAL HUMAN RESOURCES IN SUPPORT OF TECHNOLOGY	17
MONITORING, EVALUATION, AND REVISION OF THE TECHNOLOGY PLAN.....	18
MONITORING AND EVALUATION PROCESS.....	18
INCORPORATION OF EVALUATION INFORMATION FOR ONGOING PLANNING.....	18
PROCESS OF REPORTING TO STAKEHOLDERS	18
PROCESS AND TIMELINE FOR ONGOING, LONG-TERM PLANNING	18

TECHNOLOGY COMMITTEE MEMBERS

Superintendent of Schools	Dr. Patricia Ansay
Supervisor of Technology	Lynn H. Wiegel
District Wide Technicians	Paul Driscoll, Ed Swindelles
Technology Teachers	Charles Brown, Wendy Quinlan, Susan Cashton, Frank Tarnopol, Michael Kramer, Cory Rogers
Librarian/Media Specialist/Computer Lab	Jennifer Young, Janet Farrell
Curriculum Coordinator	Amy Berdos
School Principal	Raymond Dewar
Business Department Chair	Heather Albritton
Math Department Chair	TBA
Classroom Teachers	LGN – Virginia Charpentier
School Committee Member	Andrew Mackie
Norton Public Library	Denise McDermott
Wheaton College	Susan Morgado
Community Member/Parent	Lynn Reagan
Community Member/Parent	Chris Ross

NORTON PUBLIC SCHOOLS TECHNOLOGY VISION

Massachusetts' Common Core of Learning underscores that "...computers, electronic networks, expanded telephone services and other technological tools are essential in the workplace. These tools must become standard within every classroom to ensure that all students and teachers have the opportunity to apply and extend their skills and knowledge." In the Massachusetts Instructional Technology Standards, it is stated that "...educators need to provide students with opportunities that build technology skills. When students leave high school they should know how to select the right technology tool to perform a task most efficiently." The National Education Goals stress this commitment to providing students with the technical skills to compete in a global economy. With these goals in mind, the Norton Public Schools is committed to developing a detailed technological plan which incorporates the expectations and strengths of the community, parents, business, higher education (including our locals Wheaton College) and system wide administration, faculty, and staff. Adhering to school improvement and professional development plans, statewide curriculum frameworks, and the National Education Goals, the system wide technology committee has established a mission for the Norton Public Schools that:

The students of the Norton Public Schools will be prepared to use technology as an integral tool in their daily lives. In order to become functional members of a technological society, students must become life-long learners and creative problem solvers. They will be assisted in acquiring these skills by a professional staff that is well prepared to model current technology in a dynamic learning environment.

The Norton Public Schools technology vision is based in the belief that an integral incorporation of technology in the classroom includes networked access and appropriate management of relevant data, video and voice information. Our school system aspires to providing connections for all buildings with local, wide and Internet accessible networks to facilitate greater internal/external communication, information acquisition, and product dissemination. The reform-based tenets of collaboration learning, active student involvement in the determination and the ultimate attainment of educational outcomes, project-oriented education, and pertinent professional development will prepare students to become life-long learners. Technology will assist in providing them with the necessary skills to analyze data and apply its use in their everyday lives. In recent studies by the Department of Labor, projections show that employment in the areas of information and computer systems analysts and support are expected to be the fastest growing occupations during the next ten years. The combined emphasis on the reformed based principles and the appropriate incorporation of technology will assist our students in becoming informed and productive citizens of the twenty-first century.

Our determination of needs is founded in the belief that technology is a tool used to enhance both learning and teaching. This belief acknowledges the demand for constant staff support and training. Our technological professional development plan supports relevant hardware and software implementation, but, most importantly, effective incorporation of these technologies in our classrooms and in our community.

Expanded methods of communication with the community and with the world will provide our academic environment with a greater world view, and increased emphasis on cooperation, and an enhancement of the educational environment of our students and our staff.

TECHNOLOGY GOALS

CURRICULAR AND INSTRUCTION

- all students will be able to utilize technology to effectively communicate information and ideas
- all students will be able to use technology to access and analyze information in order to solve cooperatively complex real-world problems
- students will be aware of the appropriate ethical standards in accessing and incorporating acquired information
- all students will be able to utilize telecommunications to access information and data to support individual and group research

TEACHERS AND TECHNOLOGY

- technology will be used to enhance independent and collaborative learning
- teachers will gain the necessary skills to assist students in the effective utilization of telecommunications to support research
- teachers will use technology to manage the authentic assessment of student learning

SYSTEM MANAGEMENT

- a disaster recovery plan will be formalized to ensure the safe management of data.
- technology will be used to interconnect all school library services
- staffing requirements will be assessed to ensure proper support of technology hardware and software.
- system security for both hardware and software will be maintained, including virus protection, spam protection, web filter and a firewall.

COMMUNICATION

- the local area network (LAN) will facilitate information interchange among all district and school offices and classrooms
- all students and teachers will have access to telecommunication equipment and a wide area network in order to research information through the Internet
- through the use of technology, communication will be enhanced between schools, parents, and the community.

BACKGROUND

COMPOSITION OF THE COMMUNITY

The town of Norton is located in Bristol County in the southeastern portion of Massachusetts. It is thirty miles southwest of Boston. Norton is a traditional town which maintains strong ties with the past. It was established on March 17, 1710, from a part of Taunton. The town was incorporated on June 12, 1711, and received its name from the town of Norton in England which bore a relative position to Taunton, England.

The industrial, commercial, and residential districts of the community are not distinctly separated. However, there are six recognizable sections within the town: Norton center, East Norton, Winneconnet, Chartley, Barrowsville, and Norton Grove. A significant feature of the town is the presence of Wheaton College, an internationally renowned institution of higher learning.

Although population growth was slow and gradual until well into the 1940's, the town's population has increased significantly since World War II. The census of 1960 listed Norton's population as 6,818 residents. In the next ten years, the figure increased to 9,487 inhabitants. By 1980, the population had grown to 12,726. The census taken in 1993 showed the town's population at 15,081. In the 2000 census the population had grown to 18,036 showing that the town continues to grow rapidly.

SCHOOL COMMITTEE

Kevin O'Neil, Chairperson
 Donna T. Gradie, Vice-Chairperson
 Jonathan E. O'Reilly
 Andrew Mackie, Legislative Representative
 Marge Werner

OFFICE OF THE SUPERINTENDENT

Dr. Patricia Ansay, Superintendent
 Lynn H. Wiegel, Supervisor of Technology
 Amy Berdos, Curriculum Coordinator

PRINCIPALS

Raymond Dewar – High School	Grades 9-12
Roger Parent – Middle School	Grades 6-8
Paul Alperen – H.A. Yelle Elementary School	Grades 4-5
Linda Ashley – L.G. Nourse Elementary School	Grades PK-3
Mary Brown – J.C. Solmonese Elementary School	Grades K-3

School	Enrollment
Norton High School	718
Norton Middle School	801
H.A. Yelle Elementary School	559
J.C. Solmonese Elementary School	712
L.G. Nourse Elementary School	440

TECHNOLOGY IN THE SCHOOLS

OVERVIEW OF THE TECHNOLOGY PLANNING PROCESS

The initial Technology Plan for Norton Public Schools was developed beginning in September of 1994. The Technology Committee during that time began the process to plan for the continued implementation of technology in the classroom.

Currently, the Technology Team (including the Supervisor of Technology, District Technician and Technology Teachers) reorganized to review the initial plan, make modifications, enhance and update the plan. Our new plan forecasts and documents new ideas for the next three years. We will establish regular meetings each year for continued review and updates to the plan as needed in order for our plan to stay current.

Our team includes teachers and administrators from the school system, school committee representation as well as representation from the community. The Technology Team provides support for the development of a technology curriculum document, while at the same time draw from resources of its members to enhance and upgrade the schools' existing hardware. As a result, we will be able to provide a comprehensive framework for technology that teachers can apply across other content areas.

All of our planning will include an awareness and adherence to the Massachusetts State Technology Plan. We will work toward maintaining the standards set by the state's technology benchmarks and maintain the proper reports annually to the state to show our continued progress.

SOFTWARE PRIORITIES

ADMINISTRATIVE AND MANAGEMENT

The administrative computing system supports the operation of the school system. This information is used in the daily operation and thus allows for good planning and future appropriate assessment of the efficacy of programs. School administration presently utilizes Rediker software for attendance, scheduling, report cards, and discipline records. Microsoft Word and Excel are utilized for the purposes of general ledger, accounts payable/receivable, purchasing, budgeting and general communication.

A local area network exists for access to the Rediker software components of the administrative package in the district. Here the Rediker package is used for report cards, health records, food services and permanent record information.

The special education department currently uses Eutactics software to manage its reporting and data. This software is PC based and available on both desktops and laptops to special education personnel. It is linked to the Rediker software in order to share information between the two programs.

Classroom needs are met on an individual, departmental and a grade level basis. All classroom teachers have Microsoft Office and Outlook. Middle School, High School and the H.A. Yelle School teachers have Grade Quick and Edline available to them. We plan to expand the use of these programs to the J.C. Solmonese and L.G. Nourse Elementary Schools.

COMMUNICATIONS AND INFORMATION ACCESS

Norton Public Schools provides email services to all of its staff and faculty using Merrimack Educational Network Services. These services are funded in part by reimbursements from eRate funds. Computers are enabled with the use of Microsoft Outlook or Outlook Express as the main email application. We have also put into place the Edline program which enables teachers, parents and students in the High School, Middle School and H.A. Yelle Elementary School to communicate information including grades, attendance, homework and calendar items.

ERate funds are used to help fund our Internet service. The total amount received from ERate is used to pay approximately half of the costs for this service provided by Merrimack Education Network Services.

INSTRUCTIONAL AND CURRICULAR

Professional development will be provided to faculty/staff annually. Opportunities will be provided through the Professional Development committee.

The district will to continue to evaluate new software in areas which include the following:

- Curriculum integration tools
- Performance assessment services
- Instruction and learning management
- Multimedia authoring programs

HARDWARE, FACILITIES, AND NETWORK PRIORITIES

HARDWARE

- Desktop computers (5 year cycle for replacement)
- Interactive White Boards
- Projection devices
- Digital cameras
- Printers
- Scanners

FACILITIES: NETWORK DESIGN

- Upgrade Wide Area Network to Fiber
- Move to centralized data storage and centralized backup
- Maintain virus and spam protection as well as web filtering and a firewall

BUILDING AND CLASSROOM WIRING STANDARDS

- Install wireless networks in the five schools

IMPLEMENTATION ISSUES

- Increase budget amounts to continue to support and increase technology availability.
- Increase technology support staff to adequately support current technology system.

OPERATIONS, MANAGEMENT, AND UPGRADE PRIORITIES

In all classrooms, teachers are responsible for the daily operation of classroom computers. Since there is a technology instructor in charge of computer labs, daily maintenance comes under their purview. Hardware/Software and network maintenance is the responsibility of our System wide Technician. The Supervisor of Technology is ultimately responsible for the coordination of maintenance, upgrades and computer operations in offices and media centers. As district connectivity increases, the need to consider additional maintenance and network administration personnel will increase.

PROFESSIONAL DEVELOPMENT PRIORITIES

Norton Public Schools provides technology professional development to its staff annually as well as providing continued support and coaching. Each year staff is offered and participates in a number of technology workshops, both full day and after school workshops. These workshops cover a wide area of need including: MS Office, Grade Quick, Administrator's Plus, Edline, Internet, and various individual software products available through out the district. We also provide training for PC basics, interactive white boards and eInstruction systems. Each year we work with new staff and their mentors to help prepare these teachers for using our district network, servers and email. This new staff is also trained on the use of grading systems and automated attendance.

Our Professional Development Committee meets regularly to discuss professional development needs. This committee has members from each school in the district and these members act as building representatives to help communicate the needs of the district staff. We are currently looking at opportunities to provide online professional development to help meet the busy schedules of our teachers. We are also beginning to look at more effective ways of assessing the technology levels of our staff to help us determine the areas of need.

TECHNOLOGY IMPLEMENTATION ACTION PLAN

1.0 SOFTWARE PROCUREMENT

The goal of the Norton Public Schools is to provide appropriate software to meet the technological needs of all students and staff.

1.1 Goal: Upgrade Accounting Software

Initiative	Leadership	Timeline
Install Software	Lynn Wiegel	Summer 2006

1.2 Goal: Grade Quick for HAY, JCS, LGN

Initiative	Leadership	Timeline
Install Software	Lynn Wiegel	Fall 2005 HAY done Summer 2007 JCS, LGN

1.3 Goal: Upgrade Lab Software in HAY, LGN, JCS

Initiative	Leadership	Timeline
Purchase Educational Software – including more licensing for MS Office on the PC	Lynn Wiegel	Budget 2007-2008

1.4 Goal: Provide Centralized Facilities Scheduling Calendar

Initiative	Leadership	Timeline
Purchase Software	Lynn Wiegel	To be determined

1.5 Goal: Provide Centralized Professional Development Registration Software

Initiative	Leadership	Timeline
Purchase Software	Lynn Wiegel	To be determined

2.0 HARDWARE, FACILITIES, AND NETWORK ACQUISITION/IMPLEMENTATION

2.1 Goal: Upgrade District Network to Fiber

Initiative	Leadership	Timeline
		To be determined

2.2 Goal: Upgrade NHS, NMS, JCS & LGN to Wireless Networks

Initiative	Leadership	Timeline
		2007-2008

2.3 Goal: Centralize Server Locations

Initiative	Leadership	Timeline
Move all data servers to a centralized location	Lynn Wiegel, Ed Swindelles, Paul Driscoll	To be determined and contingent on Fiber Network

3.0 OPERATIONS, MAINTENANCE, AND UPGRADES

3.1 Goal: Upgrade Accounting Server

Initiative	Leadership	Timeline
Upgrade Accounting Server	Lynn Wiegel	Budget 2006-2007

3.2 Goal: NHS/NMS – Upgrade Teacher Computers in Classrooms

Initiative	Leadership	Timeline
Purchase 60 Computers	Lynn Wiegel	Budget 2006-2007
Install Computers	Paul Driscoll	Summer 2006

3.3 Goal: NHS – Upgrade Technology Education Lab

Initiative	Leadership	Timeline
Purchase 12 Computers	Lynn Wiegel	Budget 2006-2007
Install Equipment	Paul Driscoll	Summer 2006
Install Modules	Steve Brown	Summer 2006

3.4 Goal: NMS – Upgrade Technology Education Lab

Initiative	Leadership	Timeline
Purchase 12 Computers	Lynn Wiegel	Budget 2006-2007
Install Equipment	Paul Driscoll	Summer 2006
Install Modules	Mike Kramer	Summer 2006

3.5 Goal: Upgrade Computers for SPED Staff

Initiative	Leadership	Timeline
Purchase 45 Computers	Lynn Wiegel	Budget 2007-2008
Install Equipment/Software	Paul Driscoll	Summer 2007

3.6 Goal: Upgrade Computers for Elementary Schools

Initiative	Leadership	Timeline
Purchase 30 Computers (Teachers) Purchase 30 Computers (Lab) Purchase 145 Computers (Labs & Teachers)	Lynn Wiegel	Summer 2005 HAY Summer 2006 HAY Summer 2007 JCS, LGN
Install Equipment	Paul Driscoll & Ed Swindelles	Summer 2007

3.7 Goal: Upgrade Computers for Office Staff all Buildings

Initiative	Leadership	Timeline
Purchase 30 Computers	Lynn Wiegel	Budget 2007-2008
Install Equipment	Paul Driscoll	Summer 2007

3.8 Goal: Centralize Student Database

Initiative	Leadership	Timeline
		Contingent on fiber network

3.9 Goal: Upgrade Building Servers – JCS & LGN

Initiative	Leadership	Timeline

Upgrade Building. Servers	Lynn Wiegel	Budget 2007-2008
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3.10 Goal: Purchase Projectors & Ceiling Mounts for Buildings

Initiative	Leadership	Timeline
Purchase Projectors for Buildings	Lynn Wiegel	Budget 2006-2007
Purchase Ceiling Mounts for Classrooms		
Install Ceiling Mounts for Classrooms		

3.11 Goal: Purchase Digital Cameras for Buildings

Initiative	Leadership	Timeline
Purchase Digital Cameras for Buildings (5)	Lynn Wiegel	Budget 2007-2008

3.12 Goal: Purchase Scanners for Buildings

Initiative	Leadership	Timeline
Purchase Scanners for Buildings (10)	Lynn Wiegel	Budget 2007-2008

4.0 PROFESSIONAL DEVELOPMENT

4.1 Goal: Technology Training District-Wide

Initiative	Leadership	Timeline
Technology Education Training Sessions on District Software including: Edline, MS Office, Email, SPED Software, Grade Quick and various classroom software/hardware.	Lynn Wiegel	Annually

4.2 Goal: Training for Upgraded Accounting Software

Initiative	Leadership	Timeline
Train Accountant on new software	Lynn Wiegel	Summer 2006

4.3 Goal: Training for New Installation of Grade Quick HAY, JCS, LGN

Initiative	Leadership	Timeline
Train teachers and office staff on use of Grade Quick	Lynn Wiegel	March 2006 HAY 07-08 School Year – JCS, LGN

4.4 Goal: Training for New Installation of Edline HAY, JCS, LGN

Initiative	Leadership	Timeline
Train teachers and office staff on use of Edline	Lynn Wiegel	05-06 School Year - HAY 07-08 School Year – JCS, LGN

4.5 Goal: Add Online Training Opportunities for Staff/Students

Initiative	Leadership	Timeline
	Lynn Wiegel	To be determined

5.0 ADDITIONAL HUMAN RESOURCES IN SUPPORT OF TECHNOLOGY

5.1 Goal: District Technical Support

Initiative	Leadership	Timeline
Hire Full Time Data Manager	Superintendent	To be determined

5.2 Goal: Increase Elementary Technology Teachers to 5 Days

Initiative	Leadership	Timeline
HAY – Add 1 day	Superintendent	2006-2007
LGN – Add 1 days	Superintendent	2006-2007
JCS – Add 1 day	Superintendent	2006-2007

MONITORING, EVALUATION, AND REVISION OF THE TECHNOLOGY PLAN

MONITORING AND EVALUATION PROCESS

Given the ever-changing complexity of technology, it is necessary to recognize the need to constantly update and monitor the attainment of the stated initiatives. The technology team intends to review the success of its implementation and the relevancy of the technology. Monthly meetings of all technology and media specialists will monitor incremental success. Comparison of preliminary to subsequent data in the areas of networking and hardware will help to determine this impact.

INCORPORATION OF EVALUATION INFORMATION FOR ONGOING PLANNING

As a result of the monitoring strategies delineated above, the Technology Committee will review the success of the initiatives and will adjust the subsequent years' action plans. Determination will be made to ascertain the need for additional effort in particular areas. Given the dramatic changes in technology in recent years, it is necessary to view this information with vision yet flexibility.

PROCESS OF REPORTING TO TECHNOLOGY COMMITTEE

Committee members will be kept up-to-date on the Technology Plan's progress through newsletters, email, school open houses, technology demonstrations, and committee meetings. A progress report on implementation of technology will be submitted to the School Committee as part of the end of the year reports.

PROCESS AND TIMELINE FOR ONGOING, LONG-TERM PLANNING

The district technology committee will incorporate the results of the yearly monitoring of the plan to determine its efficacy and will utilize these results when it further reconvenes to develop the goals for the subsequent three year plans. At this point it will revise the vision, determine goals and future initiatives, and address the priorities. This will respond to new emerging technologies which are relevant to improving learning and supporting the objectives and goals of curriculum frameworks and global collegiality. Continuous strategic planning will insure an education for our students which will prepare for lifelong learning in the years to come.