

**Windsor Central Supervisory Union # 51
Information/Educational Technology Plan
Executive Summary**

July 2007

This Information/Educational Technology Plan supplants the previous plan approved in June of the 2004-2005 academic year by the Windsor Central Supervisory Union Board of School Directors.

This Plan has been compiled by representatives of the K-12 Windsor Central Supervisory Union Information/Educational Technology Committee, who met as an entire group or in sub-committee, a total of nine times between September 1, 2006 and April 1, 2007, to complete this document. Those who worked diligently to create this complex plan of both vision and action include Eileen Vaughn representing Barnard, Bridgewater and Sherburne Elementary Schools, Ava Emerson representing the Pomfret School, Tracey Koehler, representing Woodstock Elementary School, Holly Barrett-Morse representing Reading Elementary School and Dana Peterson, representing Woodstock Union Middle/High School. Each of these representatives worked long and hard to assess the needs of their individual schools through many local school discussions. Through the collective deliberations of these representatives within the committee framework, each school has written an Information/Educational Technology Plan that addresses the four information/educational technology goals of Windsor Central Supervisory Union, referenced below, to be adopted by the Windsor Central Supervisory Union Board of School Directors at their Chairman's Roundtable meeting of 25 June 2007.

Windsor Central Supervisory Union Goals and Action Steps

Goal #1

Equitable Access

Continue the ongoing effort to insure equitable access to information and learning opportunities for *all* students *through* the effective integration of appropriate educational technologies and media

- audit the infrastructure in each school to identify existing equipment, materials, software and network systems within the school
- each school will compile and submit a local document outlining what specific information/educational technology capacities and building needs exist
- at the Supervisory Union level a list will be compiled of all the funding sources available to support information/educational technologies in the schools, to include but not be limited to; local funds, Title IId funds and E-Rate funds
- the newly hired education/information technology specialist will coordinate an accounting of all the available funding sources which might be used to support the goals and action steps outlined in this plan

Goal #2***Infrastructure/Resources***

Continue the supervisory union-wide upgrading of infrastructure, hardware, software and technical support to better implement the approved curriculum frameworks, and to maintain/increase the equitable access to learning opportunities referenced in goal #1 above

- restructure the existing WCSU Information/Educational Technology Committee to include at least one classroom teacher from each school, who will attend at least one meeting annually and represent the school in information/educational technology-related matters
- utilize the newly hired district information/educational technology specialist to coordinate resource allocation among the six elementary schools

Goal #3***Professional Development***

Establish a comprehensive, thematic, supervisory union-wide professional development program in information/educational technology that serves both the collective and individual needs of faculty and staff by integrating “best practice” models of information/educational technology instructional practices into the existing framework of pedagogy

- embed information/educational technology professional development opportunities within existing practice, throughout the school year, as a part of the ongoing WCSU and building level in-service program
- teacher leaders and others trained in the effective integration of information/educational technologies, including the newly hired information/educational technology integration specialist, will demonstrate models of effective pedagogy, through collaboration with peers, at the local school level and beyond
- make certain that information/educational technology supports the supervisory union-wide initiative to investigate curriculum mapping alternatives that employ appropriate web-based protocols to integrate curriculum, instruction and assessment across the all eight WCSU schools

Goal #4***Evaluation***

Incorporate systematic assessment of information/educational technology protocols and products into the existing WCSU Comprehensive Local Assessment Plan, which will include, but not be limited to identification of student and staff skills and competencies

- create an appropriate elementary school-level assessment protocol at grades 5 and 6, minimally, to be incorporated into the WCSU Comprehensive Local Assessment Plan
- consult with the newly hired information/educational technology integration specialist, and other human resources as appropriate, in this process

- identify all staff aptitudes, skills and needs by incorporating an ISTE-approved assessment instrument, or facsimile

Each school in Windsor Central Supervisory Union is continuing its' ongoing effort to improve student achievement in all curricular areas. This new WCSU information/Educational Technology Plan will provide the guidelines for employing appropriate technology-based "best practices" toward that end. Every faculty and staff member in our supervisory union is committed to offering our children the best possible educational opportunities and experiences. It is clear to all of us that in a global environment, teaching and learning is becoming increasingly dependent upon appropriate information/educational technologies. Through the adoption of this document, we in Windsor Central Supervisory Union, as enacted through the individual school plans, will move forward actively toward the realization of the goals above-referenced.

Woodstock Union High School and Middle School Local Technology Plan 2007-2009

I. Executive Summary

In the past three years WUHS & MS have made positive gains in all five goals that were identified in our last Local Technology Plan 2004-2007. Those goal areas include 1) Infrastructure Development and Communication, 2) Processes and supports to sustain network functionality, 3) Integrating technology into the curriculum, 4) Developing and conducting a needs assessment for professional development, and 5) Increasing efficiencies through common software applications and standardization of data submission. Important achievements that we realized with respect to each goal are listed below in bulleted form.

Infrastructure (Goal #1)

- Email System & Website, with Efficient Admin/Library/Teacher Mgmt Software
- Implemented a 5-Year Replacement Cycle
 - Classroom Computer Upgrades
 - Peripheral Upgrades & Supports
- Established Network printers
- Provided for Server & Application Consolidation
- Increased bandwidth from fractional T-1 to multiple T-1s
- Increased internet access through addition of wireless connections and additional computers
- Piloted *Edline* as an enhanced communication tool to supplement our schools' Website in 05-06

Support for network (Goal #2)

- Established a Domain Based Security Model
- Increased Systems Administrator to 100% during the school year with additional summer support

Integrating technology (Goal #3)

- Piloted Edline as an enhanced communication tool to supplement our schools' Website in 05-06
- Refined curriculum in MS Computer Skills classes and aligned them with the GEs
- Expanded computer skills into core classes
- Initiated VHS/distance learning initiative (5 students in fall 06 and 10 students in spring 07)
- Provided Library/Media Info-Tech Instruction: integrated class research projects
- Integrated Library Skills into MS Comp Skills

Needs assessment (Goal #4)

- Developed a Faculty Needs Assessment
- Implemented the same Needs Assessment
- Hosted a Local Technology Conference with speaker and workshops in spring 05
- Provided Staff Development for on-line learning (V. Dean & L. Bango) for 06-07

- Developed a professional development survey and offerings in response to the survey (05-06 & 06-07)

Efficiencies through common software apps (Goal #5)

- Piloted Edline as an enhanced communication tool to supplement our schools' Website 05-06
- Standardized software tools through use of Microsoft Office Suite for PC and MAC platforms
- Piloted a program for Web-based data sharing

In spite of the considerable progress that we have made over the past three years, we have not fully realized our instructional potential in harnessing effective models of incorporating technology as a valuable tool in improving student learning and performance. We currently face challenges related to staff facilitation of student directed learning using technology and we could improve our distribution of resources and access to educational resources to help improve teaching and learning. Current challenges to technology integration and access include:

- Providing sufficient training in hardware and software applications to incorporate technology successfully into the classroom
- Distribution of resources and addressing the competing, simultaneous needs for access to these resources (e.g. hardware, bandwidth, etc.)
- Allocation of financial resources to support technology integration.

As we have confronted our challenges, the WUHS/MS Technology Steering Committee has conducted annual retreats to take appropriate steps to address these challenges in a meaningful way. One important result of these retreats has been to modify our vision statement and refine our goals with respect to the use of technology and its incorporation in the learning → instruction → assessment continuum. Our vision statement now identifies that for every student, our educational community will

- Provide equitable access to technology and the skills to use it.
- Make effective use of technology to enhance learning, teaching and assessment. (Enhance learning and teaching [instruction] through technology.)
- Allow the world into our classrooms.

Our retreat this past year included reviewing our current goals and updating them in light of the challenges that we have encountered over the course of the last three years. Our goals now include: 1) continued improvements to communication and enhanced learning opportunities for students, 2) refining our supports to our tech. infrastructure, 3) effective integration of technology into curricular offerings, 4) training for students and staff to use technology to communicate effectively, solve problems efficiently and evaluate information judiciously, and 5) review progress annually to make appropriate adjustments to our technology plan.

II. Review of Previous Plan

The achievements that we identified in the previous section of this plan as they relate to the goals which we established for our previous plan (developed in 04-05) were brought about as a result of several coordinated efforts and judicious use of resources. Significant intermediate range planning also helped us to realize as much as we did over the course of the past three years. The factors that contributed most to our recent accomplishments in the area of technology use, integration and evaluation have been leadership, financial planning, private funding and curriculum development through enhanced learning opportunities through technology applications. In the area of policy and leadership, we:

- Revised our AUP and supporting documents (Adopted by board September 13, 2007)
- Developed educational leadership by including administrative and board input for expanded technology initiatives
- Engaged the community through awareness and invitations to use our resources which resulted in support for our budgets
- Developed and refined roles of our Technology Steering Committee 04-05.

In the area of technology applications and resource allocation, we established or provided

- An Email System & Website, with Efficient Admin/Library/Teacher Mgmt Software
- An expanded Website: www.wuhsms.org
 - Card catalog
 - WB Encyclopedia
 - Full text magazine database
- Infrastructure Upgrades (Phone & wiring)
- Improvements to Library/Media Center with New Computers (10 students, 2 staff)*
- Increased number in student accessible computers from 140 to 220
- Increased internet access through addition of wireless connections and additional computers
- Network Switches for LAN*
- A HS Mobile Lab (10 stations & cart)*
- A MS Mobile Lab (10 stations & cart)*
- PC Lab Upgrade (18 new desktop stations)*
- Mobile Lab Improvement (extra units)*

(* Indicates that funding was supplemented by private grant)

Finally, we brought about the changes, upgrades and enhancements through a thoughtful budgeting process which included identifying needs, researching possibilities to address those needs and allocating appropriate funds to meet those needs. Communication, collaboration and coordination of planning, purchasing and training have been essential for us to make progress in the identified areas.

As we mentioned above in our executive summary, however, the existing challenges that confront us are:

- Providing sufficient training in hardware and software applications to incorporate technology successfully into the classroom
- Distribution of resources and addressing the competing, simultaneous needs for access to these resources (e.g. hardware, bandwidth, etc.)
- Allocation of financial resources to support technology integration.

We have identified several factors which we believe have played a significant role in creating these challenges. The following list identifies the most important factors that have hindered our progress in technology integration.

- Technology changes so rapidly that training is always needed to keep current
- Financial constraints require time, creativity and skillful analysis to overcome
- We have a deep need for understanding the specific roles that various members of our school community must fill in successfully integrating technology into the learning process (teachers, administrators, media specialist, technology committee members, etc.)
- We also need to foster a greater understanding of the access vs. security continuum: all members of our educational community must understand the process for why we need safeguards in addition to access
- Adequate access to technology tools, resources and application techniques is essential to insure successful integration
- Reliability of technology tools and internet access is critical to insure effective instructional practices and student learning opportunities.

With these factors identified, we have begun to focus initiatives for improvement on specific tasks that we believe will assist us in meeting our revised goals and objectives over the course of our next technology plan period (July 2007 to June 2009). In order to address the challenges effectively and meet our newly established goals we must:

- Refine the structure for delivering staff development for technology integration
- Provide Teachers and students explicit training to insure IT integration
- Seek additional outside grant funding
- Make more effective use of Title II-D dollars
- Reallocate local resources (e.g. school-wide technology line items) according to shifting needs
- Establish a graduated level of shared leadership with role refinement and sharing expertise
- Develop a human resource (leadership) list to help address technology questions in certain areas (disciplines, departments, etc.)
- Improve communication through comprehensive use of *Edline* and more complete use of our phone system features.

If we respect the requirements that we have identified here and successfully address them over the course of the next couple of years, we should be able to make additional progress toward the

newly established goals of our Local Technology Plan for 2007-2009. These updated technology goals for WUHS/MS include:

- Continuing to refine an integrated network and technology infrastructure for effective **communication** and the **enhancement** of opportunities for **student learning** (WCSU Goal #1)
- Refining systems and processes that **support** and **sustain** the **functionality** of the technology infrastructure (WCSU Goal #2)
- **Integrating effective use of technology** into the **curriculum** to ensure **expanding accessibility** to learning opportunities (equity for all school community members) (WCSU Goal #1)
- Providing students and staff the necessary training **to use technology** applications in a responsible and meaningful way **to communicate effectively, solve problems efficiently and evaluate information judiciously** (WCSU Goal #1 and Goal #3)
- Reviewing annually the progress made on our stated goals through surveys, assessments, audits and alignment with our Comprehensive Local Assessment Plan to provide data for a summary report at the end of the Plan period (WCSU Goal #4)

They will be addressed in detail in the next section of this plan.

III. Goals

The WUHS/MS technology vision statement is that for every student our educational community will:

- Provide equitable access to technology and the skills to use it.
- Make effective use of technology to enhance learning, teaching and assessment. (Enhance learning and teaching [instruction] through technology.)
- Allow the world into our classrooms.

A. Curriculum Integration

-To **integrate effective use of technology** into the **curriculum** to ensure **expanding accessibility** to learning opportunities (equity for all school community members) (WCSU Goal #1)

Goal	Action Steps	Priority	Indicators for Actions	Measure	Timeline
Integrate technology into curriculum	Offer a four-day, district-wide integration workshop during the summer of 07	1	At least one teacher from each discipline participates in course offering	Each teacher will create a unit to share with colleagues	By March In-service 2008

-To provide students and staff the necessary training **to use technology** applications in a responsible and meaningful way **to communicate effectively, solve problems efficiently and evaluate information judiciously** (WCSU Goal #1 and Goal #3)

Goal	Action Steps	Priority	Indicators for Actions	Measure	Timeline
Training to use technology to communicate, problem-solve, and evaluate	Provide training in decision-making about how to use tools most effectively	1	All teachers will select from a menu of technology workshops provided by teacher leaders in technology integration	Each teacher will complete a reflective assessment of the usefulness of the workshops	By June 30 2008
	Implement judicious use of technology tools and resources to enhance student thinking and learning	1	All teachers will review the AUP and Terms and Conditions of technology resource use with students All teachers will evaluate students use of technology as part of at least one project assessment	Each teacher will review documents in each class at the start of each semester	September 2007

B. Overarching Elements

B 1 Access and Infrastructure

-To continue to refine an integrated network and technology infrastructure for effective **communication** and the **enhancement** of opportunities for **student learning** (WCSU Goal #1)

Goal	Action Steps	Priority	Indicators for Actions	Measure	Timeline
<p>Refine integrated network & tech. infrastructure for effective communication and enhanced opportunities for student learning</p>	<p>Insure dual platform support for student learning by examining the feasibility of shifting maintenance dollars to a lease agreement for Mac replacement cycle</p>	<p>1</p>	<p>Technology Committee reviews lease agreement proposal for cost effectiveness & functionality</p>	<p>Lease agreement signed by business manager & board chair</p>	<p>July 2007</p>
	<p>Continue to commit sufficient funds to maintain and expand our digital phone system as an integral part of our communication network with students and parents</p>	<p>2</p>	<p>Technology Committee establishes “sports hotline” or other automated service lines as part of our primary communication tool with parents, students and community</p>	<p>Hotline numbers are established and published to the greater educational community</p>	<p>August 2008</p>
	<p>Explore the potential benefits of “Open Source” solutions for cost containment, reliability, interoperability, versatility and access to educational resources</p>	<p>3</p>	<p>Technology Committee and Systems Administrator research cost and logistical implications of shifting to “Open Source” applications and/or operating system</p>	<p>Report produced by Systems Administrator to identify financial implications and other factors</p>	<p>January 2009</p>

B 2 Technical Support

-To refine systems and processes that **support** and **sustain** the **functionality** of the technology infrastructure (WCSU Goal #2)

Goal	Action Steps	Priority	Indicators for Actions	Measure	Timeline
<p>Refine the system and processes that support and sustain the functionality of our technology infrastructure</p>	<p>Redistribute computers to facilitate student “on demand” access to tools and resources</p>	<p>1</p>	<p>The Technology Committee with teacher input will develop a plan to create multiple spaces large enough to accommodate an entire class for simultaneous technology based projects</p>	<p>At least 8 areas will be identified (including 20 mobile units) so that an entire class could work simultaneously on a learning activity technology resources</p>	<p>June 2009</p>
	<p>Incorporate student accounts into our technology infrastructure</p>	<p>1</p>	<p>The systems administrator will propose a budget and timeline for setting up student accounts for all students 7-12</p>	<p>All students 7-9 will have individual accounts at the start of the 07-08 school year</p>	<p>August 2007</p>
	<p>Refine the process for filtering and communicate process for restricting and allowing access to Websites</p>	<p>2</p>	<p>The Technology Committee will communicate a clear protocol to all staff and students about how filtering occurs and what role they play in ensuring safety and access</p>	<p>All students 10-12 will have individual student accounts at the start of the 08-09 school year</p>	<p>August 2008</p>
	<p>Refine the process for filtering and communicate process for restricting and allowing access to Websites</p>	<p>3</p>	<p>The Technology Committee will communicate a clear protocol to all staff and students about how filtering occurs and what role they play in ensuring safety and access</p>	<p>Publication of the protocol and appropriate steps to take to insure sites are blocked and unblocked as needed</p>	<p>October 2007</p>

B 6 Budget

Description	Year 1 Amount	Year 2 Amount	Year 3 Amount
Professional Development - TechWorks	20,000	10,000	10,000
Salary & Wages	60,000	62,000	64,000
Infrastructure: wires, switches, phones (year 3)	2,500	2,500	22,500
Hardware	45,000	47,500	50,000
Software	3,500	3,500	3,500
Travel	500	500	500
Consultants & Contracts	1,200	1,200	1,200
Stipends	1,200	1,200	1,200
Equipment – peripherals, etc.	5,000	5,000	5,000
Web site maintenance	1,500	1,800	2,000
E-learning	10,000	10,000	10,000
Edline subscription	2,700	2,700	2,700
Web-based Assessments	2,600	2,600	2,600
Web-based Data Analysis	1,000	1,000	1,000
Mac Lab Lease Agreement	10,500	10,500	10,500
Evaluation - consultant	500	500	500
Other			
Total	167,700	162,500	187,200

C. Evaluation

- To review annually the progress made on our stated goals through surveys, assessments, audits and alignment with our Comprehensive Local Assessment Plan to provide data for a summary report at the end of the Plan period (WCSU Goal #4)

Goal	Action Steps	Priority	Indicators for Actions	Measure	Timeline
Review progress annually and provide a summary evaluation at end of Plan period	Develop data gathering tools to evaluate plan progress	1	Tech Committee creates surveys & data collection tools for teacher info	Tech Committee will distribute to teachers during faculty meetings	March 2008
	Compile progress report for each year	2	Tech Committee examines feedback about student and faculty accomplishments	Tech Committee prepares annual report about goal achievement	June 2008 June 2009
	Prepare summary report on Tech Plan	3	Tech Committee examines overall progress towards all goals on Plan	Tech Committee prepares summary review of Plan and refines goals for next 3 year period	April 2009

Summary

Barnard Central School

Our goals at Barnard Central School are twofold; provide appropriate technology and the appropriate instruction to students in grades kindergarten through grade six. We understand that students need these skills to continue their education in a technologically expanding society and to be able to pursue all avenues of information as lifelong learners. Our teachers are becoming more familiar with the Information Technology Grade Expectations for Vermont's framework of Standard and Learning Opportunities and are beginning to integrate them into their curriculums.

At Barnard Central School educators continue to keep current with the latest information/educational technologies' best practices to enable them to teach the technology skills needed at their grade levels. Continuing education funds are available for future technology courses. In-house instruction on PowerPoint, unitedstreaming and using the bcsvt.org website is available. We would like to have more experience in using iMovie.

Software is selected and used to integrate computer technology with classroom curricula. The search for appropriate software is an ongoing process. We currently use Appleworks for word processing, but our plan is to move from Appleworks to MSWord. We plan to obtain more Microsoft site licenses so that all students will have equal access to the MS applications. This would also help students who use non-Macintosh systems at home to be able to transfer information easily to and from school. PowerPoint, Adobe Photoshop and iMovie are used for multimedia presentations. The Type to Learn program is used for keyboarding instruction.

We continue to update and expand our computer hardware and software inventory as the budget allows. All classrooms (except the kindergarten), the computer lab, and the library are hardwired into a network. WorkGroup Manager manages these Mac computers. The computer lab has 15 iMacs. All of our networked computers can select either our large Elite (black only) printer housed in the lab, or the Oki color laser stationed in the Library Media Center. Students can access their accounts at any of the networked computers. Internet is available to all accounts. We currently have CIPA filtering on them. The administrative and the nurse's offices use PC's, and they have separate printers. We also have two airport stations that allows for wireless Internet throughout the school. We plan to install wireless cards into the updated computers going into the kindergarten room.

In addition, we have three digital cameras, a digital video camera, an LCD projector, and a MacBook to use for classroom instruction and multimedia presentations for the school and community.

II. Review of Previous Plan

Barnard Central School

Goals	Explanation
<p><i>Somewhat Successful</i> Goal #1 Continue to provide resources and learning opportunities for professional development in order that the staff can teach to the standards effectively.</p>	<p>Although some of the staff has taken technology workshops and courses, we need to continue to work on this goal.</p>
<p><i>Somewhat Successful</i> Goal # 2 Continue to develop a plan to meet the new Vermont Technology Standards for grades K-6 and incorporate information/educational technology into the curriculum.</p>	<p>Children are taught to the standards on a weekly basis, but there is no specific plan in place to integrate the IT GE's into the curriculum.</p>
<p><i>Successful</i> Goal #3 Continue to maintain the network and purchase new equipment for upgrades and replacement so that information/educational technology can be taught effectively.</p>	<p>We have upgraded our lab and most of the classroom computers. We have put a new, more powerful server into place so that our network works better. The "Dan's Guardian Computer" (filtering) has been upgraded to a more powerful computer so it wouldn't interfere with Internet traffic. We have upgraded our Internet service from dial-up to satellite.</p>
<p><i>Unsuccessful</i> Goal #4 Develop a plan for assessing the effectiveness of our information/educational technology program.</p>	<p>We do not have an assessment plan in place at this time.</p>
<p><i>Successful</i> Goal #5 Continue to create an efficient communication system between our school, other schools in the district and the community at large.</p>	<p>We now have an interactive website. Teachers have posted information on it and our school community has been invited to participate. There is a link from the WCSU website to our school's website and visa versa.</p>