



Wappingers Central School District

Technology Plan 2007-2010

Table of Contents

Section	Page
1 Vision and Related Goals and Objectives	1
2 Integrating the Most Appropriate and Effective Technology Content.....	3
3 Access for All Learners	5
4 Internet.....	7
5 On-Going Professional Development	7
6 Access Plan and the Impact of Technology.....	8
7 Funding.....	9
8 Involving Key Stakeholders	9
Appendices	
A Infrastructure and District Technology Hardware Standards	10
B Software Standards	12
C Computer and SmartBoard Inventories	15
D Internet User Agreement	20
E NETS for Students, Teachers, and Administrators.....	21
F Projected Costs and Budget	26
G Implementation Action Plan	27

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WCSD 3-YEAR TECHNOLOGY PLAN, 2007 TO 2010.

1. VISION AND RELATED GOALS AND OBJECTIVES:

1a. Using Technology to Improve Student Learning, Teaching and Administrative Functions.

To prepare our students for a future in our technological, global world, they will need to:

- Understand the role of technology as a tool and be able to determine what, when and where it is appropriate and best to use it.
- Have the ability to communicate and create collaborative communities with others within the school, around the district, throughout the state, across our country and around the world.
- Find, organize, manipulate, synthesize, create, share and present timely information.
- Be able to find answers to their own questions, thereby participating in their own learning and becoming more motivated to learn.
- Work directly with content providers to get the latest, most up to date information.
- Prepare for and be able to understand their place in a global community.

To properly prepare students for our world, teachers now need to be able to:

- Have the ability to communicate and to create collaborative communities with other teaching professionals to stay current on best practices.
- Create interdisciplinary lessons so students will understand how content areas relate to one another.
- Have the ability to teach to different student modalities.
- Provide students with authentic audiences so their work has meaning for them.
- Provide students with immediate access to the most timely materials.
- Provide students with easy access to content providers and electronic resources.
- Help students develop questions and work toward their own answers allowing the learning to be more student directed.
- Provide interactive experiences to improve student understanding of concepts.
- Use data to make meaningful and effective changes in instruction.

Administrators need to be able to:

- Have the ability to communicate and create collaborative communities with other professionals as well as those they supervise.
- Provide adequate and timely information to help those they supervise.
- Use data to make meaningful and effective instructional and administrative decisions.
- Create appropriate staff development opportunities to help teachers understand the role of technology in instruction.

1b. Specific Goals to Be Accomplished With the Plan:

Goal 1: It is the goal of the WCSD to use technology to support and advance instruction and thereby promote student achievement by:

- 1.1 Developing, conducting pilot projects of, and implementing effective methods of integrating technology into instructional practice. For example, by:
 - Extending the Smart Classroom model from the junior high schools to district elementary schools.
 - Extending the elementary school wireless laptop model to all elementary schools.
- 1.2 Continuing to develop and use innovative strategies such as distance learning, video conferencing and virtual school courses to expand options available to students.
- 1.3 Continuing to utilize technology integration teachers to work with teachers and students to create collaborative projects integrating technology.
- 1.4 Continuing to evaluate and purchase software and on-line resources which are aligned with instructional needs and goals and are technically feasible to install.

Goal 2: It is the goal of the WCSD to support and advance the district administrative systems to enhance efficiency and effectiveness by:

- 2.1 Continuing to review technical needs of administrative departments and assist as needed.
- 2.2 Continuing to work with BOCES and the Regional Information Center to plan for changes in state technology and assessment reports requirements.

Goal 3: It is the goal of the WCSD to maintain a technology framework and infrastructure that sustains the district's technology plan objectives by:

- 3.1 Reviewing and updating *Internet User Agreements* for students and staff as needed.
- 3.2 Continuing to analyze use patterns to allocate equipment for equity and maximum effectiveness.
- 3.3 Continuing to replace computers in ordinary use on a 5-6 year cycle and computers in specialized use on a basis that meets specific program needs.
- 3.4 Monitoring infrastructure needs, network traffic, use of software applications, remote access, and wireless access.
- 3.5 Continuing to use the bidding process, preventative maintenance and other cost saving measures to ensure adequate supplies (projector bulbs, toner cartridges, etc.) will be available on an equitable basis for technology users.
- 3.6 Including funds in each budget year to purchase, install and maintain new equipment.

Goal 4: It is the goal of the WCSD to provide professional development programs for instructional and non-instructional staff that sustains the district technology plan objectives by.

- 4.1 Continuing to implement the ISTE standards with students, teachers and administrative staff.
- 4.2 Investigating on-line staff development options.
- 4.3 Continuing to provide training to professional as well as non-teaching support and technical staff.
- 4.4 Continuing to offer interdisciplinary IT staff development programs each summer.

Goal 5: It is the goal of the WCSD to provide regular and timely information to staff, students and the community to encourage and support collaboration by.

- 5.1 Continuing to provide staff with useful analysis of NYS and other NCLB-related assessments to help them modify instruction to promote student achievement.
- 5.2 Continuing to use the district data warehouse to provide student-level data and/or data analysis to administrators.
- 5.3 Continuing to develop collaborations with area businesses, agencies and colleges.

Goal 6: It is the goal of the WCSD to develop and regularly update a long-range plan for efficient and effective incorporation of technologies into the district's operations by.

- 6.1 Updating the district's technology plan annually by conferring with administrators, teachers, students, parents and support staff and surveying their technology needs.

2. INTEGRATING THE MOST APPROPRIATE AND EFFECTIVE TECHNOLOGY AND DIGITAL CONTENT.

2a. How Technology Will Be Used Within Instruction:

Interactive Whiteboards – Teachers and students are using their SmartBoards to enhance the curriculum. The students become actively involved in the learning process by manipulating phrases, objects, and specific vocabulary. The teachers have the ability to preplan lessons that they can reconstruct as the students engage in the lesson. After the lessons are completed, they may easily print new notes and use them as a study guide.

Video Conference Equipment - Teachers and students have the ability to interact with students or content providers around the world. This technology enhances global learning along with cooperative learning. When connecting to each other, students can tutor their peers and learn in an environment where they teach each other. They become the empowered by the ability to teach and steer their learning. Teachers and students can use the content providers as a resource to experts in the field they are studying.

Wireless Laptop Labs - Teachers and students are able to use a wireless laptop cart as a tool to enhance their curriculum in the classroom. The cart allows both students and teachers to be multimedia accessible throughout the day on an “off the clock” schedule. The students can engage in digital photography, movie making, and music production, along with other tools such as word processing and Internet access. Teachers are able to teach using thematic based learning. Through this type of teaching students are able to produce work that stretches across all subject areas.

Fixed Labs - Teachers and students have the ability to schedule lessons on a regular basis. During this time they are able to access the Internet, Microsoft Office Suite, and use software that is age appropriate and supports their curriculum. Elementary school students visit the lab with their teacher at least one in every six days. Secondary school students use the fixed, general purpose labs when their teachers schedule lessons there. The fixed labs provide a setting where hands-on computer instruction can take place for an entire class at the same time.

Secondary Department-Specific Labs – These labs have specific software based on the curricular needs of the department and are generally not available for general building use.

2b. How Technology will be used to Support Administrative Activities:

- Maintain WERCS, the on-line elementary school report card system created by the district in the 2005-6 and 2006-7 school years.
- Sustain the MUNIS fiscal management system.
- Sustain the Pentamation Student Management System and make plans for its replacement in the 2009-10 school year.
- Support Transportation Department software and hardware.
- Support the work order system and hardware for the Facilities and Operations Department.
- Support hardware and software for the Food Service Department.
- Provide Palm Pilots for secondary administrators so they can have immediate access to the student management system and related data.
- Provide laptops for all administrators so they can work productively from different locations.
- Provide data warehousing and data analysis to help administrators make instructional and administrative decisions.

2c. Technology will be integrated into K-12 curriculum and instruction K-12 in the following ways:

- Four technology integration teachers will provide integration training to district instructional staff, support ongoing technology-focused school programs, and initiate and implement new technology integration programs and practices.
- Staff members, including teaching assistants, administrators, clerical staff and teachers will receive staff development on technology topics.
- Summer curriculum projects will be designed to train teachers to effectively integrate technology into their curriculums.
- User group meetings will be held for teachers using new technologies in their instruction.
- The district will continue to host technology based conferences such as the Regional Interactive Whiteboard Conference, the Regional NYSCATE conference and a conference on the uses of video-conferencing in instruction.

3. ACCESS FOR ALL LEARNERS.

3a. Minimum Infrastructure and Equipment Per School. (See Appendix A).

3b. LAN and WAN Configurations and Requirements.

- The district office and all but one school are connected directly to an internal 50 MHz fiber ring (Kinry Road School, the exception, is connected through Vassar Road School, through a 1 Gb fiber connection). The district's ring is connected to the Dutchess County BOCES through a 100 MHz external fiber connection and from BOCES to the Internet. The server closets in each building all have layer 3 switches with 1 Gb fiber connection between closets with redundancy.

3c. Software/Digital Content to Be Available, at a Minimum, for All Learners. (Software Standards and Library Databases; see Appendix B).

3d. Assistive Devices and Processes to Be in Place.

The district purchases a variety of software and hardware for our students who require assistive technology to succeed, based on periodic reviews of their needs. Purchases have included:

- Software:
 - *Lexia* – to help improve vocabulary and phonics skills.
 - *Reach Interface*, *Zoom Text* and *Screen Doors 2000* – for “on-screen” keyboards.
 - *Dragon Speak*, *Write-Out Loud*, *Readplease 2000*, *IBM Via Voice* and other speech to text to speech software.

- Hardware:
 - *AlphaSmart 3000, Dana and Neo Keyboards* – used to help students increase their keyboard and writing skills. These types of devices are lighter weight than laptops.
 - *Optelec Clearview Video Magnifier* – to increase the size of print in books, magazines and teacher hand-outs for visually impaired students.
 - *Dynavox Communication Devices* – keyboard and LCD displays that can be mounted on wheelchairs to help multiply disabled students communicate.
 - *Intellikey Keyboards* – large, easily identifiable keys to help students local letters, numbers and symbols.
 - Wireless microphones and transmitters for hearing impaired students.

3e. Data on current access to technology by students. (See Appendix C).

3f. Technology Acquisition (three year projection of the type and amount of equipment, wiring, type and amount of software and on-line resources to be acquired to ensure successful and effective users of technology).

Technology Acquisition Projections:

<i>Equipment Type</i>	<i># to be purchased. in 2007-2008</i>	<i># to be purchased. in 2008-2009</i>	<i># to be purchased. in 2009-2010</i>
Desktop Computers	400	400	400
Laptop Computers	80	80	80
Interactive Whiteboards	20	20	20
Wireless Labs (32 computers each)	2	2	2
Wireless Access – complete school buildings	2	2	2
Software and Databases	Continue at current funding levels, revising standards and titles as needed	Continue at current funding levels, revising standards and titles as needed	Continue at current funding levels, revising standards and titles as needed
Networks and Other Infrastructure	Upgrade, as needed	Upgrade, as needed	Upgrade, as needed

4. INTERNET (voice, video, data).

4a. Implementing the WCSD Acceptable Use and Internet Safety Policy. (See Appendix D).

The WCSD implements and monitors our students' use of the Internet in several ways. Filtering and Visual CaseI software limit where students can go on the Internet. We insist that students who wish to use the Internet agree to our terms and have a form with the parents' permission on file. The computer lab teaching assistants in each school assign rights to each student log-on based upon the receipt of a signed Internet user agreement. Finally, our Help Desk technical staff monitors usage, troubleshoots problems and recommend sites for blocking by our filtering software.

Board policies related to Internet safety can be found on the Wappingers CSD version of BoardDocs (<http://www.boarddocs.com/ny/wcsd/Board.nsf>), using the *Policies* link that appears at the top of the public side of that web site. The most relevant policies are 4526, *Internet Safety Policy* and 4526.1, *Internet Safety Policy Regulation*.

4b. Strategies to Ensure That Equipment, Software and Online Resources Are Available to All Learners.

The WCSD strives for equity among departments, schools and students. To ensure that all learners have access to technology, the Technology Support Services staff and the Assistant Superintendent for Technology, Testing and Assessment work cooperatively with principals, departmental coordinators, special education coordinators and administrators to balance the needs of each area against budgetary constraints.

5. ON-GOING PROFESSIONAL DEVELOPMENT.

5a. Determine Knowledge, Skills and Attitudes Needed by Teachers and Administrators.

The WCSD uses the *National Educational Technology Standards* for students, administrators, and teachers (developed by the International Society for Technology Education) as guides to the appropriate technology skills needed by each group (see Appendix E as well as the NETS site at <http://www.iste.org/nets>). The Help Desk keeps track of training requests so that courses can be designed to meet the needs of our constituents. Finally, professional development is designed to promote district technology initiatives such as the SmartBoard Academies for new Interactive Whiteboard users.

5b. Who Will Participate and How Will This Be Determined.

Staff development will be provided for the entire school community. Course topics will be determined based on staff surveys, requests to the help desk, recommendations from the technology integration teachers and recommendations from teachers who hold the WCSD advanced certification in technology. (Detailed information about the certificate is on the district's web site at <http://wappingersschools.org/DOT/AdvTechCertificate>).

