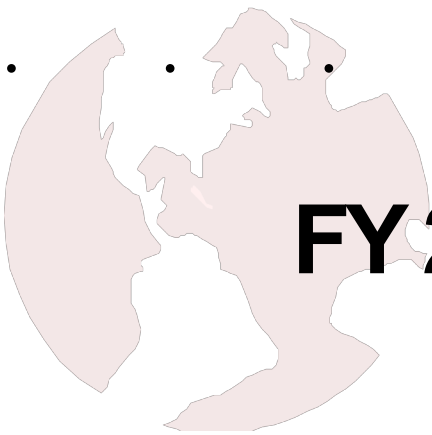


Roseville Area Schools

Technology Plan



FY 2008-2011

***Integrating Technology into the
Business of the District***

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Planning and Needs Assessment

Technology Leadership is shared by the Admin Tech Team who oversees and develops the direction for the integration of technology into our district business. This approach allows a connection from infrastructure to the application. As a result, our students, teachers and staff have a strong voice in what is needed and how we do business.

District Wide Leadership

The technology planning team for the Roseville Area School is called the Admin Tech Team. The team membership includes:

- Assistant Superintendent of Technology
- Supervisor of Information Systems/ Technology
- Coordinator of Media Services and Technology
- Supervisor of Technology
- Supervisor of Teaching and Learning,
- High School Principal
- Elementary Principal

The Admin Tech Team is the research and development body for creation of the strategic plan. They bring the plan forward to the Superintendent's Cabinet for approval and for final review by the School Board.

Local School/ Community Involvement

Members of the Admin Tech Team are closely connected to the local school community through strong linkages with the building professional, support staff and parents. The following are the formal communication methods in which the team is connected to the buildings and the community.

- Coordinator of Media Services and Technology meeting with Media Specialists on a monthly basis for discussion, planning and training.
- Supervisor of Information Services/Technology meets monthly with DITA's (Information Technology Assistants) to discuss ideas, issues and provide training.
- Supervisor of Teaching and Learning and his specialists meet monthly with Curriculum Assistants to discuss resources and training necessary to integrate technology into the instruction practice.
- Supervisor of Technology meets monthly with school, city and county staff to discuss the local infrastructure.

Demographics

The Roseville School District consists of seven communities including; Roseville, Falcon Heights, Little Canada, Lauderdale, and parts of Shoreview, Mounds View and Maplewood. The total population is 54,737 and the total student population is 6,338 students k-12.

The district is located directly north of Minneapolis and St. Paul and is a first ring suburb with all of the characteristics including, an aging population, landlocked with no open land, declining population, increased free and reduced lunch families currently at 32% and an increasing minority population, currently at 32.2%

Needs Assessments

The district conducts a community-wide survey every three years. The most recent survey was conducted by the Center for Community Opinion in March 2006. In this survey 84.4% of the community reported that the district was “teaching the technology skills necessary for students to compete in a global society.”

In 2005 a technology survey was administered to the staff to determine their level of use and need for training. Approximately 20% of the staff responded to the survey. The significant findings reported only 30% of the staff were using databases, spread sheets and power point or graphics with their students. In addition, 59% reported using Web resources as learning tools. Only half of them reported attending a specific technology training even though 87% ranked their commitment to technology as a professional development areas as very important or important.

As a result of this survey the team planned professional development to address some of the gaps. The most successful one was a series of summer workshops offered in the summer at no cost for staff. Over the past three summers 400 staff has taken part in the training. We will be re-administering this survey in the fall of 2007.

Keyboarding teachers were given a survey in December 2006 to assess the effectiveness of the elementary keyboarding software UltraKey. This software has been piloted the previous year and adopted in the fall of 2006. Over 90% of the keyboarding teachers (grades 3-6) responded to the survey. More than 50% of them had been teaching keyboarding for at least five years. The significant findings include 94.3% of the teachers reported their students were engaged in the program, 67% reported that students were using the correct use of the eyes, posture and keyboarding methods as a result of the program. In addition, 74% reported their students were able to achieve grade level proficiency and 88% felt the program provided “good instruction.”

B. Vision, Goals, Objectives and Strategies for Technology

623 Vision:

The Roseville Area Schools Vision is to be a learning community characterized by engaged, motivated and high achieving lifelong learners; a nurturing and challenging environment for each students and staff member; clear goals, high expectations and measurable results; professionals who apply current best educational practices in instruction, curriculum and assessment; and meaningful involvement and interactive communication among students, families, staff and the community.

623 Values:

Respect for Self and Others, Compassion, Responsibility, Honesty/Integrity, Commitment, Valuing Families and Sense of Community



623 Goals:

Resources, Equity, Achievement, Leadership

Roseville Area Schools will equip students to succeed in our global society by:

- Providing secure and stable resources;
- Implementing the District's Equity Vision to ensure that our school community provides an equitable learning environment for all;
- Engaging, supporting, and challenging each student to make significant annual academic growth;
- Preparing students for their next stage of life; and
- Strengthening and increasing the leadership skills of students and staff.

Report on Technology Performance Objectives for 2004-07

The following performance objectives were identified and addressed in the previous technology plan.

- **Achievement:** keyboarding, portability
 - Implemented UltraKey computerized keyboarding software for grades 3- 6
 - Implement MAP testing for grades 2-8
 - Replaced district wide mobile ibook lab
- **Instruction:** staff training, teacher implementation incentives
 - Provided grade level specific technology training during workshop week
 - Purchased district wide curriculum oriented software licenses for Inspiration/Kidsperation Kidpix, Ultrakeys, and Ilife
 - Developed district standard technology handouts on curriculum oriented software
- **Communication:** web based teacher pages
 - Implemented Schoolcenter teacher web publishing system for all schools
 - Implemented Student Information Portal (SIP) for RAHS to give parents access to grading and scheduling information.

Technology Performance Objectives for 2008-2011

- **Resources**
 - *Achieve a 4 year replacement/ rotation cycle for computer hardware*
 - Update computer rotation chart with ages and locations for review by Admin Tech
 - Explore lease purchase and other options for hardware acquisition
 - *Develop stable network performance at all buildings*
 - Complete fiber optic connection to Central Park and Roseville Middle school
 - Work with vendors to explore Voice over IP
- **Equity**
 - *Create district-wide system for identification and utilization of assistive and differentiation technologies.*
 - Implement technology purchasing process for all assistive technology software.

- Develop a training module for staff to better utilize assistive and differentiation technologies.
- **Achievement**
 - *Implement Sagebrush (Viewpoint) at the classroom level fall 2007.*
 - Introduce Sagebrush capabilities to elementary teachers at Back to School Workshop
 - Train elementary teachers in local buildings
 - Work with buildings to better accommodate on line assessment
- **Leadership**
 - Prepare district leaders for the coming technology changes
 - Continue to pilot of administrative level for Sagebrush with principal and supervisors

Meeting the Minnesota Academic Standards:

The following areas are being used to meet the Minnesota Academic Standards for our district teachers. These resources are provided by our Media Specialist Coordinator.

- Resources – Encourage buildings to purchase of more technology through regular budgets and grants
- Link to MDE standards and standards correlation documents from district website at <http://www.isd623.org/edc/ps/it/curriculumoverview.cfm>.
- Provide teachers with information and opportunities to go online to investigate MCI samplers in professional learning communities.
- Employ data from MAP (Measures of Academic Progress) online testing as formative assessment tool to proscribe differentiated instruction.
- Provide board-credit toward lane change for teachers choosing to take online instruction classes via *Learning Bridges* program.
- Subscribe to *Atomic Learning* to provide tutorials for learning tech tools as needed.
- Identify teacher technology skill sets
 - Provide staff development opportunities for gaining technology skill sets
 - TIES summer classes
 - August teacher technology workshops
 - August library media specialist technology workshops
 - Building technology classes as requested
- Identify student technology skill sets
 - Provide learning activities that use technology as integral component (technology integration)
 - Will pilot the *EasyTech* online curriculum at Brimhall Elementary School in 2007-2008 in grades K-5.

Technology Literacy Standards

A K-12 scope and sequence of technology and information literacy skills have been created and are part of the curriculum review process (SOARC). The classroom teachers are responsible for teaching technology

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skills and can collaborate with media specialists to deliver instruction. Library media specialists and technology assistants provide support.

In November 2002, the School Board approved the following Exit Outcome that guides this curriculum: *Roseville Area Schools' graduates are proficient at using the tools of technology and information systems. They use technology to increase their productivity, improve the effectiveness of their communication, find credible information, solve problems and make decisions. The critical use of information and technology tools increases achievement of our students and enables continued learning after graduation.*

Three Essential Understandings and their Essential Questions organize the learner outcomes for information media and technology.

I. Information Literacy is a framework for a lifetime of learning.

- What do I do when I have an information problem?
- What does it mean to be literate?
- How do media affect me?
- Why is information and access to it important in a democracy?

II. Intellectual work has value, and its use requires appropriate acknowledgement.

- What are intellectual works?
- When is using another person's ideas stealing?
- Can you respect intellectual works without agreeing with them?

III. Technology and information tools can enhance our work and communication.

- What is "right" and "wrong" when using technology and information tools?
- What technology skills are necessary to be successful in school, work, and personal life?
- When is it helpful to use a technology tool?

Our curriculum, with supporting information, can be found on the ISD #623 website at <http://www.isd623.org/edc/ps/it/curriculumoverview.cfm>. Care was taken to align our learner outcomes with the (AASL) American Association of School Librarians' *Information Literacy Standards for Student Learning*, (ISTE) International Society of Technology in Education's *National Educational Technology Standards (NETS)* and the Minnesota Educational Media Organization's *Standards for Effective School Library Media Programs*. Both of the national professional organizations have begun the process of updating their national standards, so we will follow their efforts closely to make sure we stay current. Our next major media/technology curriculum revision will begin in the 2011-2012 school year.

This curriculum was formally approved and adopted by the Board of Education on September 28, 2004. It is presently in a two-year phase to Assess and Gather Data to determine how well we are doing. The part-time Instructional Media and Technology Coordinator provides leadership through both the Teaching and Learning & Library Media departments.

Curricular Materials Online

The district and the state of Minnesota provide several online resources that can be used to support curriculum. They are collected on a district web page as Ready Reference Tools at <http://www.isd623.org/edc/r/tools/>. Subscription agreements determine who in the school district may use these tools.

- Learning Bridges online classes on instruction available for board-credit.
- Subscribe to Atomic Learning for on demand technology training.
- Plan to look into enabling student home access to UltraKey program from outside district. We implemented this software tool this year and will continue to refine our teacher and student support for keyboarding.

- Many teachers provide resources and communications on classroom website using our School Center subscription.

Planning Innovative Initiatives

We plan to purchase online subscription to EasyTech) from learning.com) for grades K-5 at Brimhall Elementary School next year. Due to the success of the recent implementation of the UltraKey program for elementary keyboarding, we investigated *EasyTech* and found it aligned with our curriculum. We will assess to see if it provides a more consistent core of technology training to students.

Data Driven Decision-making/ Computerized Testing

The district frequently uses online surveys to gather opinions and desires for aspects of technology. (Examples include *spring 2005 Technology Survey*, *March 2006 Elementary Software Survey*.)

Measures of Academic Progress (MAP) testing results are used as formative assessments to determine differentiated instruction needs. Students will test each fall and spring, and teachers (and parents) will analyze resulting data in professional learning communities. Best practices will be determined and developed.

Results of MCAs are analyzed by teachers (and parents).

With the impending state on line testing our buildings are feeling the need to increase their technology resources to lessen the negative impact on instructional time in our computer labs. The media tech staff are supporting the MEMO appeal to the MN Legislature to fund technology equipment for school districts for this mandate.

Parental Involvement

Communications is a major portion of this year's District wide focus goals. District and building web sites have been in place for several years, and the district cable access channel has provided numerous school activities to cable subscribers for over 20 years. The area of growth and concentration at present is in the area of individual student information to parents such as attendance, class work, grades, and school news. This year a Technology Conversation was held with live broadcast over the district cable channel. This discussion centered on how to best reach the public and specifically the school community with technology enhancements to our communications processes. Periodically, as conditions warrant, community and parent groups are brought together to study specific issues.

Note: See the 2008-2011 Performance Objectives

C. Policies and Procedures

Acceptable Use Policy

The Acceptable Use Policy (See exhibit F File: CTAU) was approved in 2002. Each school has procedures based upon the policy and regulations. These procedures include training, parental signature and keeping

records of who has signed off at each level of access. Media specialists work with principals to oversee building plans to inform and educate the Acceptable Use Policy.

The district is in compliance with the requirements of the Child Internet Protection Act (CIPA) using Sonic Wall Internet filtering software, as well as the use of GFI anti Spam software to filter email entering the district. The district currently has E-Rate, other Federal Title programs and LSTA funding grants supporting educational programs in the School District.

Federal Requirements

The NCLB requirement of technology literacy will be met by students under present technology articulation as they do their regular class work. The media/tech curriculum review committee is working with teachers to develop assessments that show student technology achievement as well as competence in other subject areas.

It is a challenge to keep up with the ever changing demands of state and federal reporting requirements. The NCLB act has resulted in the addition of four new computerized state achievement tests (Testing is required in Gr. 3-8, 10 & 11.). These new required online tests will place a huge burden on already taxed technology resources. These types of unfunded mandates present financial hardships for districts, increased workloads for staff, and potentially may limit technology use within other curriculum areas.

Roseville Area Schools provides a computer in each classroom that would operate the standard district software. We continue to also upgrade the computer labs with high level technology use more often as newer resources, software or functionalities become available.

Security

We have never conducted a full security audit. We did conduct a network infrastructure assessment (January 2007) that include elements of security review. Security is well integrated into our basic processes, and systems that are replaced or upgraded are assessed for security. In addition to our basic systems, we run a dedicated Intrusion Detection server that monitors any security attacks from outside the district. We also protect the District network from the Internet with a SonicWall firewall, which logs any intrusion attempts. Overall operation of this security assurance equipment is scrutinized on a regular basis.

The shift to a data driven district has put a burden on our limited technology staff and technology infrastructure. Many information system areas have greatly expanded such as online testing, data warehouse systems, and web communication portals, while technology support staffing allocations and funding have remained the same. This continues to present great challenges as we attempt to implement new systems. We are also aware of the limitations to our 6 sites with Broadband and are working with other public agencies to provide fiber to all of our buildings.

D. Technology Infrastructure, Management and Support

Our current technical support staffing is able to provide excellent services in the areas of desktop support and network management. Computer hardware is repaired in-house and average resolution time on technical problems is less than 24 hours.

Staffing Design

The Roseville Area Schools have a strong infrastructure with a technology team in each building consisting of: Media Coordinator, Media Technology Assistant and a part time Information Technology Assistant. The district-wide technology support team consists of eight staff members: Technology Services Supervisor, Helpdesk Manager Network/Server Support Specialist, PC Support Specialist, Macintosh Support Specialist (three full time), AV &Telephony Specialist.

Basic Hardware Infrastructure

Within each building the network backbone bandwidth is 1 gig or higher. Network access is available in every instructional area in the district. Secure centralized data storage is provided for all students and staff using a combination of Apple Xserves and Windows 2000 servers. To summarize our infrastructure is:

- 1 gig network backbone at every school
- Network connectivity to every classroom
- Centralized data storage for all staff and student accounts
- Fiber WAN to 5 schools, Broadband to 6 other sites
- W2k administrative servers, Xserve Mac instructional servers –45 servers total
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Administrative Technology Infrastructure

The infrastructure is comprised of the administrative applications and activities below – along with a brief functional definition for each item.

- Skyward PaC Finance software – HR (staff) information, payroll and accounts payable, budgeting and state finance reporting.
- SASIxp – Student Information system, including student family data, health information, attendance, health, grades, and test scores.
- EEPR – electronic gradebooks
- Sagebrush/Viewpoint – Data warehouse for student testing and achievement data.
- Data Card – Production of Identification Card software.
- Automated Logic – Energy Management Systems DPRS – Special education data
- Edulog- School bus routing software
- PCS Revenue Food Service – Nutrition Service
- Microsoft Outlook – Email, calendars, scheduling.
- District Web Pages – provide information to the public regarding schools, schedules,
- District Cable Access channel – provide information to the public
- Back-up activities – three levels of backup processes

Student Computers:

Currently we have a ratio of 1:4 computers to students in the district. In addition all students have a student account. We change out equipment every three years and all of our media centers, classrooms and offices are connected to the internet. Macintosh computers are used in all classrooms, computer labs, and instructional areas. At the high school level, PC's are used in business and drafting areas. In administrative areas, Windows 2000 PCs are used.

Elementary schools utilize AlphaSmart portable computers for various writing projects. Laptops are available for special Ed staff checkout at all schools. A mobile ibook lab of 12 stations is available for



checkout to all schools for special projects. At the secondary level, PDAs are used in science classes to gather and analyze data. Most administrators regularly use a PDA for calendar and contacts management.

E. Role of the School Media Center

All of our schools have library media specialists who determine and disseminate best practice for delivering this curriculum across grade levels. In addition to the Media Specialist the Media Center has a Media Tech Assistant who is in the secretarial unit. We did have Instructional Technology Assistants but they were cut to .5 with more district-wide responsibility in 2005-6.

Both the Media Specialists and the District- wide Instructional Technology Assistants meet separately several times through out the year to discuss the aspects of the tech plan that involve them. They also make recommendation to our Admin Tech team for discussion. Media specialists work with each other and classroom teachers to integrate information technology in subject areas.

The school library media specialists facilitate the integration of technology into instruction through direct staff instruction, either one-on-one or through in-services, and by collaborating with classroom teachers on lesson development. They often team-teach with classroom teachers to deliver instruction effectively. There are three major areas of responsibility for media specialists: learning and teaching, information access and program administration. Details of these areas follow:

1. Learning and teaching
 - a. Develop a thorough knowledge of subject area and grade level curricula in order to promote integration of technology and information literacy skills needed.
 - b. Be a faculty leader and participate on school committees that deal with media and technology issues.
 - c. Provide instruction and leadership in instruction and technology integration.
 - d. Provide direct instruction when needed in instructional units such as with gifted/talented students or independent study programs.
 - e. Promote reading and provide reading selection guidance.
2. Information access
 - a. Facilitate student and staff access to information by scheduling for maximum media center and resource availability.
 - b. Create an open and comfortable learning environment.
 - c. Create and maintain an accurate, relevant collection of resources and technologies and teach their use.
3. Program administration
 - a. Provide information skills and resources (print, nonprint, AV, technology, etc.) to help teachers deliver instruction and students meet curriculum goals.
 - b. Collaborate with administrators and teachers to teach technology and information skills and to provide needed resources to support instruction.
 - c. Manage media center budgets and prepare reports as needed.
 - d. Promote the media/technology programs, services, and its materials by maintaining a positive relationship with students, staff, and community.

F. Staff Development and Training

Most professional development money is allocated through building staff development committees. Activities must relate to yearly department, building, or district academic goals. Integration of technology would be embedded into a specific content area goal to obtain approval from a professional development committee. In addition, the Instructional Media and Technology Coordinator supports opportunities for technology-related staff development activities and conference attendance as her budget allows.

District professional development is provided when a specific need arises, such as the MAP testing initiative or the latest assistive technology.

The Instructional Media and Technology Coordinator has found two types of activities helpful to staff and well received. She provides these as her district budget allows:

- A summer membership is purchased for TIES classes so district staff can attend technology classes free of charge. We have done this for three years and our numbers are increasing each year.
 - In 2004, 82 classes were taken.
 - In 2005, 103 classes were taken.
 - In 2006, 219 classes were taken.
- August work sessions where teacher participation is voluntary and paid. We used this model to ease the transition to Mac OS X and new standard district software. This helped us get off to a good start in the fall of 2006. Future plans are to continue such annual sessions to encourage teachers and media specialists developing technology lessons and resources that can be shared across grade-levels and/or departments.

In the district Media and Technology Services Handbook, we give this professional development advice:

How can I develop technology skills?

- Request/participate in district, school, or other technology training sessions. *See your media specialist, building information technology assistant (ITA), or staff development committee.*
- Learn on your own using a step-by-step manual, handout, tutorial, or video. *Available from your media & technology staff or online.*
- Learn from a peer who has the skill and willingness to help.

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G. Budget for Technology

See appendix A

H. Implementation Plan

See appendix B

I. Evaluation Plan

The evaluation of our tech plan is build into the process in several areas. The implementation Plan has a place for dates of completion. At the time of the budget the Admin tech Team reviews the Implementation Plan to see where there are areas of need which have not been addressed and to view what is planned for the coming year. Each year items are moved around based upon circumstances of budget, need and changing technology priorities.

In addition to our Implementation Plan the Admin Tech Team discusses needs and sets Performance Objectives based upon the district goals and our needs and areas if growth. In addition we use community wide surveys to gain feedback ever three years and technology has always been an area we are asking about. Finally we have on going surveys as described in our needs assessment section which relate to specific goals or projects where we wish to have feedback from a segment of our population on a specific topic. These tools allow us to evaluate where we are going and if we are being effective in meeting our mission of integrating technology into the business of our district.

Final Thoughts

The tech plan is both an exercise in thinking ahead and a time to evaluate where we are and where we are going. We will need many things in the near future as our students and our state demand more things be done with technology. I welcome this challenge and know that the only thing in the way is the availability of resources. Our School Board, staff and administration is ready and our plan is comprehensive.

Our weakness is lack of resources and our strength is the strong collaboration of the technology staff and department with the curriculum and instruction department. We plan our work based upon what we need to support teaching and learning in the Roseville Area School District.