

INTERSTATE 35 COMMUNITY SCHOOL



EDUCATIONAL TECHNOLOGY SHORT AND LONG RANGE PLAN



2009-2010

INTERSTATE 35 COMMUNITY SCHOOL TECHNOLOGY COMMITTEE:

The following individuals have been dedicated to the process of developing a Short and Long Range Technology Plan for the Interstate 35 Community School District. The Technology Committee has met on a monthly basis since April of 2008. During the past twelve months, the committee has carefully studied the educational technology at Interstate 35 in the following manner:

- On-site inspection of facilities and equipment
- Review of 2005-2006 AEA Assessment Document
- Review of 2006-2007 Technology Reports
- Results of a Survey of all I-35 Teachers
- Results of a Survey of all I-35 Students in 2nd through 12th Grade

During the past twelve months, the committee has researched educational technology in relationship to the needs of students for 21st Century Skills. This research has involved the following:

- An extensive review of literature regarding technology and 21st Century Skills
- Material gathered from other Iowa School Districts
- Attendance by committee members at Iowa Technology Educators Consortium Conference
- Input from district patrons and technology vendors

After much discussion and deliberation, the Interstate 35 Community School District Technology Committee drafted this Educational Technology Short and Long Range Plan convinced that this document will provide the school district with a road map to technology integration and services essential to providing all students with the acquisition of 21st Century Skills.

Committee Members:

Julie Kordick	-	Teacher
Cindi Cassady	-	Community Member
Casey Christensen	-	Administrator
Ashley Smith	-	Teacher
Ryan Streeter	-	Community Member
Timothy Tibbits	-	Community Member
Eric Sundermeyer	-	Superintendent
Kris Zuercher	-	Teacher
Scott Meyer	-	Part-time Network Admin
Julie Zimmerman	-	Librarian/Media Specialist
Barb Flickinger	-	I-35 Communications
Bryan Nelson	-	I-35 Communications
Alyson Morrison	-	Teacher

Facilitator: Jade Pospeshil

- Technology Director

INTRODUCTION:

The Interstate 35 Community School Board of Education approved the formation of a District Technology Committee in the early winter of the 2007-2008 school year. The purpose of this committee is to develop a short and long range plan for educational technology. The committee is comprised of community members and school employees. The goal is to have a technology plan prepared for the board's approval at the earliest date.

The Interstate 35 Community School District Technology Committee initiated the planning process in early spring 2008. On April 16, 2008, the committee met for the first time. Over the course of the past several months, the committee has met on a monthly basis to lay the ground work for the planning process.

This document is the Short and Long Range Plan being recommended to the Interstate 35 Board of Education for adoption.

DEFINITION OF EDUCATIONAL TECHNOLOGY:

“Educational Technology includes all components of informational technology used to enhance teaching and learning.”

FOUNDATION OF BELIEFS:

- In preparing for the future, all students need to gain a basic foundation and knowledge of technology.**
- Educational technology must serve all students.**
- Educational technology must be adaptable.**
- Educational technology needs to be used as a problem solving tool.**
- The school district must provide appropriate funding for educational technology.**
- All patrons of the school district need to be aware of the importance of educational technology.**
- Educational technology must include learning about technology etiquette, ethics, appropriate use, and consequences.**
- Educational technology includes a commitment to teacher training.**

VISION OF EDUCATIONAL TECHNOLOGY:

“Educational Technology must enhance teaching and create new opportunities for learning.”

MISSION OF THE INTERSTATE 35 COMMUNITY SCHOOL DISTRICT:

“The Interstate 35 Community Schools exist to develop life-long learners and responsible, productive, and successful citizens in an ever-changing society.”

STUDENT INPUT:

In the fall of 2008, the Technology Committee implemented a survey of all students in grades 2-12 to determine the following four things: 1) The level of student proficiency; 2) The areas of students use; 3) The desire to use technology for learning; 4) How students would like to use technology for learning.

Input in second through fourth grade was limited but revealing. Our elementary learners like to use educational games. As they get older, our elementary students expect more involvement with technology. Many of them know how to use digital cameras, iPods, Google, and a whole host of other technology. They would like to see greater computer availability in their classrooms and the computer lab along with other peripherals and software. They would also like to learn more about how to use the keyboard, and they would like to do more creative things with technology.

In grades 5-6, there is a definite demand for more use of technology. Only half of the students in grades 5-6 feel proficient in the use of technology, and their use is primarily in the area of entertainment and communication. The 5th and 6th grade students would like to see more learning promoted through the use of educational games. They would like to be more involved with the internet. They would like to have more time and access to technology for educational purposes.

The students in grades 7-8 want to see much more use of technology for educational purposes. These students feel competent in the use of technology at most levels. They would like to see more technology use for research, projects, homework, and educational games. Time and availability are concerns for this group of students.

High school students proclaim a high proficiency with technology. They would like to use technology in every class. They recognize the educational value of technology, and they want it used for more than teacher presentations. High School students believe technology makes things much easier to understand, and they feel technology adds a real world element to learning. Several high school students said technology would make learning more relevant and motivational. The biggest concern in the high school is the lack of accessibility to justifiable sites on the Internet. They want a more open environment. The high school students asked for more research, project-based learning, online homework, and creativity. They would like to see laptops for all students. As for classes, high school students want classes in web design, graphic design, game design, video making, computer art, robotics, and technology support.

The responses from the student surveys make it very clear that technology is truly an integral part of our student’s world. Most students enjoy access to technology for communication, entertainment, and research at home. Our students are

connected to the world, and they are frustrated when they come to school they are isolated from the world. They know the power of technology, and they want us to use it.

TEACHER INPUT:

In the late spring of 2008 prior to the dismissal of school for the summer, all teachers completed a technology assessment. These assessments were tabulated (elementary, middle school, high school, and PreK-12) and submitted to the committee for consideration. The following reflects the main points that the committee pulled from this information.

- The elementary seems challenged by supervision issues when it comes to elementary student use of the computer labs.
- There is very little computer lab use in the elementary. Teachers note the inefficiency of getting all students logged on in the lab as an impediment.
- Teachers would like to see more technology available in their rooms.
- There is no existing curriculum for technology at the elementary.
- Fun keyboarding programs would be helpful in teaching the students to keyboard.
- The middle school teachers seem most challenged by the reliability issue of the hardware, software, and network.
- The high school teachers seem challenged by limited access due to a lack of availability and scheduling.
- A number of high school teachers are interested in large screen projectors.
- Some teachers would like project boards and other devices for whole group instruction.
- Student needs should push technology, not technology push needs.
- We need to maintain updated hardware, software, and operating systems.
- The challenge for the elementary is three fold: Getting students to know the system, training for teachers, and a curriculum.
- There needs to be a written curriculum of standards and benchmarks.
- The teachers valued technology classes as one of the professional development strands.
- The school needs to tie into technology and jobs.

TEACHER COMPETENCE:

A review of the teacher assessment data revealed the degree of teacher competence along a wide range of technology knowledge, skills, and applications. The committee felt that it was important to identify technology knowledge, skills, and applications in which all teachers needed to possess competence. It is the belief of the committee that by possessing competence in these areas of technology knowledge, skills, and applications teachers will take the initiative to integrate technology as an integral part of the teaching and learning process.

The following represent the knowledge, skills, and applications for which all teachers need to possess and demonstrate competence:

Use of E-Mail	Use of Web Search
Use of Microsoft Word	Use of Microsoft Excel
Use of PowerPoint	Use of Graphics
Downloading of Images	Use of Wiki
MySpace/Facebook (social networking)	Use of USB Drive
Download from a Scanner	Connect to a Large Screen Projector
Keyboarding Ability	Use of CD ROM/DVD
Multiple Print Capabilities	Construction of a Website
Use of Digital Camera	Grade Book Program
Use of an LCD Display	Use of a Smart Board
Use of Blogs	Use of Video Streaming

The previously mentioned knowledge, skills, and applications have significant implications for professional development training.

PROFESSIONAL DEVELOPMENT:

Based on the committee's identification of technology skills that should be possessed by all teachers, the committee initiated a conversation around the most effective ways to provide training. It was recognized that the skills are significant and the abilities possessed by our teachers will be vastly different.

What would be the most effective and valid way to determine the level of knowledge and ability of each teacher?

We need to develop a schedule. We need to identify those teachers with a high degree of interest who possess competence in certain areas, and use them to teach and peer coach specific skills.

Professional development must be relevant to the teacher. When engaging each one of the required skills and applications, it is important to ask, "When would or will the teacher(s) use it?" Should use be an option.

How will it be determined that a teacher has learned the required skill? Should there exist some form of demonstration of competency?

The other view is that teachers need to believe in the value of technology. Teachers need to possess 21st Century pedagogical skills to apply to technology. They must believe in the need to create an environment for the ubiquitous use of technology. Professional development needs to promote the development of teachers with the ability to be an adaptor, a communicator, a learner, a visionary, a leader, a model, a collaborator, and a risk taker.

What are the implications of the technology skills and application requirements for future hiring? What are the implication of the technology skill and application requirements for hardware and software acquisition?

TECHNOLOGY CURRICULUM:

The primary reason for the existence of technology in a school system needs to be the benefit that technology brings to the learning process. A significant commitment to technology needs to be combined with a significant commitment to make full use of technology as a tool for learning. Without the commitment to make full use of technology as a tool for learning, the investment represents wasted funds.

When considering technology and the learning process, there are three considerations: Learning of Technology, Learning for Technology, and Learning with Technology.

Learning of Technology involves learning about the hardware and software. In this curricular area, schools need to determine what it is that all students need to know and be able to do in using technology hardware and software. Once it has been determined what it is all students need to know and be able to do, then a scope and sequence needs to be created that illustrates when and where the learning and mastery will occur. Once a scope and sequence is established, it is critical that teachers are identified to carry out the scope and sequence with a formally developed units, lessons, and assessment.

Learning for Technology involves learning regarding the sociological implications of technology including appropriate use, diverse use, regulations and laws, and ethical use. As with Learning of Technology, this learning requires a scope and sequence to determine when and where this learning will occur.

Learning with Technology requires teachers to take a whole new approach to teaching and learning. Teachers need to be willing to employ a full range of technology to create a learning environment that is dynamic, exciting, motivational, and authentic. Learning with Technology is not sitting and receiving information via a PowerPoint presentation. Learning with Technology is hands-on. Learning with Technology is often project based. Learning with Technology is focused on the utilization and acquisition of 21st century skills by all students.

The integration of technology involves the acquisition of resources, the development of skills, and curricular implementation. When all three of those components exist, the full integration of technology occurs.

HARDWARE CONSIDERATIONS:

What needs to be the access and availability of the following?

- **Laptops**
- **Smart Boards or Mimio Whiteboards**
- **Digital Cameras**
- **Large Screen Projectors**
- **Document Cameras**
- **iPod Sets**
- **Student Polling Systems**
- **eInstruction Tablets**
- **eInstruction Clickers**

SOFTWARE CONSIDERATIONS:

What needs to be the access and availability of the following?

MS Office Professional	iPhoto
iTunes	iMovies
Accelerated Reader	Administrator Plus
Atlas	Photoshop
HTML editors	SQL databases
Kidspiration	Star Reading
Creative Studio	Final Cut Pro
DVD Authoring Software	ALEKS (online math)
Passkey (online Reading, Math, Science)	Autodesk Inventor and AutoCad
Quickbooks	Sunburst Titles
Type to Learn	Advanced Microtype
Adobe	Plus eInstruction
Inspiration	Kid Pix
Moodle	FilmMaker Pro
Ultra Key	VectorWorks

FINANCIAL COMMITMENT:

Over the course of the past three fiscal years, the school district’s financial commitment to technology has increased to begin the process of meeting the needs of students and staff. Prior to fiscal year 2007, limited finances were available or allocated for technology.

Beginning with fiscal year 2007, \$40,000.00 from the general fund was allocated for the purchase of software and computers. During this fiscal year, \$6,619.74 was spent on salaries and benefits for technology services. \$11,464.05 was spent on software and computers. Also during fiscal year 2007, there was \$16,534.99 spent from the Local Option Sales Tax on computers. It is important to remember that

this is the first fiscal year for the financial plan created by the Guiding Coalition. It is also important to note that in January of 2006, the school received 70 new computers and a new network server donated by Kum and Go.

In fiscal year 2008, the technology budget was increased to \$70,000.00 of general fund expenditures. During this fiscal year, \$17,056.00 was spent from the general fund on salaries and benefits for technology services. During fiscal year 2008, \$24,671.05 was spent from the general fund on software and computers. There was \$22,289.00 spent from the Local Option Sales Tax, and \$22,289.00 donated by Kum and Go for computer expenditures.

For fiscal year 2009, the school district made a commitment to share a technology coordinator with Southeast Warren at a general fund cost of \$51,887.00 for salary and benefits. The total budgeted amount from the general fund for technology in fiscal year 2009 is \$116,887. Of the total budget, \$65,000.00 is allocated from the general fund for software and computers. The fiscal year 2009 budget also calls for \$20,000.00 to be allocated for computers out of the Local Option Sales Tax.

Based on the past three years, there was a total of \$34,618.78 spent on technology in fiscal year 2007, \$86,306.60 spent on technology in fiscal year 2008, and \$136,887.00 budgeted for technology in fiscal year 2009.

In projecting the funds that will be necessary for fiscal year 2010, it is important to keep in mind the financial tolerances of the school district. While the district currently has a very fiscally sound Unspent Balance and Fund Balance, the current economic conditions within the nation and state cause reason to pause and consider the impact that the economic downturn could have on the school budget. It is also important to consider funding in relationship to all other financial obligations.

The following technology budget for fiscal year 2010 is within the financial tolerances of the school district:

Fiscal Year 2010 Software Costs	=	\$ 35,000.00
Fiscal Year 2010 Hardware Costs	=	\$ 60,000.00
Fiscal Year 2010 Hardware LOST Allocation	=	\$ 10,000.00
Fiscal Year 2010 Technology Director Cost	=	\$ 90,000.00
Projected Increase for PreK-12 Wireless Facility	=	\$ 5,000.00
Total Anticipated Fiscal Year 2010 Tech Costs	=	\$200,000.00
Total General Fund Commitment	=	\$190,000.00
General Fund Increase over Fiscal Year 2009	=	\$ 54,113.00

After considerable conversation, the Technology Committee determined that the employment of a Technology Director and Technology Support Technician needed to be phased in over two or three years. The committee feels strongly that these two

positions are critical if the district is truly going to create a 21st century environment for learning. This is addressed in alignment with this particular goal.

Long Range Technology Plan (2010-2011)

Software Costs	=	\$ 40,000.00
Hardware Costs	=	\$ 75,000.00
Technology Director	=	\$ 93,000.00
Technology Support Technician	=	\$ 55,000.00
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Total Year 2 Costs	=	\$263,000.00

Long Range Technology Plan (2011-2012)

Software Costs	=	\$ 45,000.00
Hardware Costs	=	\$ 80,000.00
Technology Director	=	\$ 96,000.00
Technology Support Technician	=	\$ 58,000.00
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Total Year 2 Costs	=	\$279,000.00

SHORT RANGE GOALS:

The short range goals are those goals targeted for completion within the course of one year after adoption. Short range goals are deemed to be essential to moving technology education beyond the current state. Short range goals are the initial steps in the pursuit of long range goals. The following are the short range goals being recommended as a part of this plan.

- The school will employ the services of a full time Technology Director to be part of a leadership team in converting the Interstate 35 Community School District into a 21st Century School. (see Appendix for Job Description)
- Create, implement, and maintain the districts technology advisory committee made up of school administration, teachers, support staff, students, parents and community members.
- A replacement plan (yearly rotation) will be developed for all technology at Interstate 35 Community School District.
- A network map will be created with copies stored in the technology office, central office, and vault for reference when working with the school's network.

- All technology hardware and associated equipment at Interstate 35 will be inventoried with asset tags with a record of the inventory kept in the technology office, central office, and vault for future reference.
- All software inventoried with licenses, registration keys, maintenance agreements, and all pertinent information available.
- All technology inventories, network map, and replacement plan will be accessible, stored and maintained with one master.
- A PreK-12 Technology Curriculum Map will be created in collaboration with the Technology staff, Curriculum Coordinator, Building Principals, and Teachers at Interstate 35 Community School.
- Elementary (PreK-4) Keyboarding Software will be researched and purchased for implementation by the Interstate 35 Element. School.
- A PreK-12 wireless environment will be created.
- All PK – 8 classroom ports will be connected and live to the network.

SHORT RANGE 21st CENTURY LITERACY GOAL

- Every student will be technologically literate by the time the student finishes the 8th grade, regardless of the students race, ethnicity, gender, family income, geographic location, or disability.
- Teachers, administrators, and classroom support personnel will embrace teaching strategies based on recognition of technology as an enabler and motivator for 21st Century learners.
- Teachers, administrators, and classroom support personnel gain a willingness to use learner's own skills and abilities to enhance learning and the integration of technology.
- Specific professional development time will be allocated for educational technology.

SHORT RANGE 21ST CENTURY INTEGRATION GOAL

- **The school will acquire the resources needed for technology integration such as: Interactive White Boards, Laptop Computers, PDAs, IPODS, etc.**
- **Students will learn to apply technology skills in meaningful and appropriate ways.**

LONG RANGE GOALS:

- **The school will employ the services of a full time Technology Coordinator to work with the Technology Director in addressing the components of the technology plan and fulfills the role and responsibilities outlined in the job description. (see Appendix for Job Description)**
- **The necessary resources will be acquired for technology integration.**
- **Hardware and software purchases will focus on educational and administrative applications.**
- **Review technology security policies annually.**
- **Acquire, implement, and maintain asset management software to document all inventories, maps and plans.**
- **For each computer, appropriate documentation exists regarding platform, hardware, software, licenses, security and all other pertinent information needed for recovery, maintenance, and audits.**

LONG RANGE 21ST CENTURY LITERACY GOAL

- **The technology application will drive the curriculum framework.**
- **Teachers, administrators, and classroom support personnel will implement teaching strategies based on recognition of technology as an enabler and motivator for 21st Century learners.**
- **Learning goals will be organized and aligned with technology use.**
- **The curriculum will drive technology use.**
- **21st Century assessment models will be based around technology.**

LONG RANGE 21ST CENTURY INTEGRATION GOAL

- **Technology will be used to enhance student learning.**
- **Technology will include real world applications.**
- **Cross Curricular studies will include technology.**
- **Curriculum will be aligned with technology resources for teaching and learning.**
- **Sufficient time will be allocated for professional development.**
- **Teachers must demonstrate proficiency in the use of educational technology for instruction.**
- **The tools, techniques, and applications of technology will support integrated, inquiry-based learning to Prepare all children to be life-long learners.**

ASSESSMENT:

There must exist a means by which the adopted goals are assessed. The following are stages of technology implementation. A rubric needs to be developed for each goal to help us assess our growth towards technology integration:

**No Use
Exploration
Emerging
Integrated
Leadership**

The Technology Director could provide the leadership and create the collaboration needed to develop action plans and assessment rubrics.

**TECHNOLOGY DIRECTOR
Job Description**

Qualifications: **Teaching Experiences**
 Instructional Technology Leadership Skills
 Management Skills
 Administrative Skills
 Interpersonal Relationship Skills

Reports to: **Superintendent of Schools**

Supervises: **Any Employee serving in a technology related capacity**

Job Goal: **To use leadership, supervisory and administrative skills so as to guide the development, access, and implementation of the district's technology for the educational benefit of all students.**

Job Performance Responsibilities:

- **Facilitates the District Technology Committee in the short and long range planning process.**
- **Guides development, implementation, and evaluation of district technology services.**
- **Analyzes problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of established goals.**
- **Assists in the design, implementation, maintenance, and analysis of district networks and systems.**
- **Oversees asset management of both hardware and software, including licensing, maintenance agreements, warranty information, etc.**
- **Coordinates the planning of the security of technological systems.**
- **Consults with the administration on network related security issues.**
- **Assists in the development and coordination of the sections of the budget that pertain to technology.**
- **Prepares, implements, and administers the district technology plan and budget.**
- **Keeps abreast of developments in technology innovations, and provides leadership in determining their appropriateness for inclusion in the district educational program.**
- **Guides development, implementation and evaluation of inservice training programs for professional personnel.**
- **Works with building principals in the improvement of individual staff competencies.**

- **Assists the district technology support technician with implementation of the national educational technology standards for students and ensures alignment of technology education among grade levels, subject areas and buildings.**
- **Works with principals and teacher committees in organizing and coordinating the full integration of technology throughout and across the curriculum.**
- **Provides staff leadership to ensure understanding of and promote the educational technology goals of the school district.**
- **Provides professional development opportunities for staff to assist them with the integration of technology as an effective teaching and learning tool.**
- **Provides one-on-one support for teachers when needed.**
- **Facilitates the development and enforces the district's policies and procedures for the use of the district's technology.**
- **Assumes responsibility for reviewing and evaluating results of district-wide technology programming.**
- **Coordinates all formal efforts of the professional staff in projects of technology implementation.**
- **Participates in appropriate local, area, state, and national professional meetings related to educational technology and advancement.**
- **Serves as a contributing member of the Administrative Leadership Team and other committees as assigned.**
- **Evaluates, negotiates, and aids in the writing of bid specifications for the development and/or purchase of administrative and instructional software and hardware.**
- **Participates in technology professional growth activities to keep abreast of current and future trends in instructional technology.**
- **Supervises and works cooperatively with the technology support technician.**
- **Performs such other tasks and assumes other responsibilities as may from time to time be assigned by the superintendent.**

TECHNOLOGY SUPPORT TECHNICIAN
Job Description

Qualifications: **Various Network, Software, and Hardware Certifications**
 Interpersonal Relationship Skills
 Minimum of Associate Degree or Equivalent Experience

Reports to: **Technology Director**

Job Goal: **Primary technician in support of I-35 CSD technology including network, hardware, software, and application programs.**

Job Performance Responsibilities:

- **Serves as a member of the District Technology Committee**
- **Maintains, upgrades, and replaces hardware/software systems in support of classroom, administrative, and public access initiatives.**
- **Configures new computers**
- **Inventories new equipment**
- **Installs and certifies network cabling (coax, cat-5, fiber, etc.)**
- **Maintains district file servers**
- **Provides phone support to district personnel**
- **Maintains remote accessibility and security.**
- **Troubleshoots and supports district laser printers**
- **Works with hardware and software vendors for support.**
- **Supervises student interns.**
- **Supports digital media – i.e. setup projectors and presentation areas.**
- **Acquires applications in support of customers goals using appropriate software solutions.**
- **Remains on call during work hours for unplanned events and consultation.**
- **Works with end users and the Technology Director to develop web page content consistent with district policies.**
- **Performs other duties as directed by the Technology Director or Superintendent.**

Note: **The Technology Support Technician job description will be revisited and revised as necessary prior to Board approval of advertising for this position.**