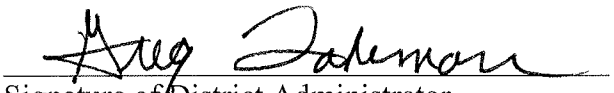
School District of Altoona Information and Technology Plan 2009-2012



Signature of District Administrator
Board of Education Date of Approval:

IT Plan Contact:
Mark Scheppke, Technology Coordinator
715-839-6168
mscheppke@altoona.k12.wi.us

B. Executive Summary

The Information and Technology Plan of the School District of Altoona is the result of a process that combines the library and technology plans into one document. Throughout this plan the Library/Media and Technology programs are referred to as Information and Technology programs. This is a recognition that a primary purpose of both programs is to provide students with the skills and tools required to use information in a digital-age society. As a result of the planning process, the district Technology Committee will be called the IT committee. The primary focus of the combined plan is to increase student achievement through utilizing information and technology resources in research-supported ways. The plan seeks to fulfill the district's mission to "provide a quality education in a safe environment where all students have the opportunity to prepare for today's challenges and realize tomorrow's dreams." The process of developing the plan involved gathering and analyzing information from a wide range of sources to evaluate the success of the previous plan. This information was then used as a basis for establishing goals, objectives and action plans to better address the needs of the school community. Central to the implementation of the new plan are efforts to integrate information and technology literacy within the curriculum. This plan includes goals to communicate to the community the effectiveness of using information and technology resources for learning, and increasing staff and student information technology competencies. Maintaining and improving the current level of services provided by the library media and technology staffs is crucial to fulfilling the goals and objectives expressed in this plan.

The plan's goals, objectives and program information will be disseminated to the community through district newsletters and postings on the district web site. News releases will be provided to various media outlets, such as newspapers and television stations, as educational activities incorporating information and technology occur within the schools.

The Information and Technology goals for the 2009-2012 plan are as follows:

Supportive Environment for Technology Use Goals: District leaders will:

Maintain or improve the current level of communication by sharing with district stakeholders the vision, goals and initiatives, as well as the progress made by the Information and Technology Program.

Fund and support the Information and Technology Program, with one FTE library media specialist at the elementary, middle and high school, in order to assist in meeting the vision and mission of the School District of Altoona. Consider reinstating the Library/Media specialist position that was eliminated at the end of the 2008-09 school year, provided there is adequate funding from the state.

Professional Development Goals: District leaders will:

Provide time and assistance to populate our online curriculum database Link4Learning, integrating core curriculum and Information and Technology standards.

Provide training and opportunities for staff to integrate information and technology into their lessons, using research-based, best practices, including performance-based assessment and project-based learning.

Provide opportunities for staff to develop differentiated instructional strategies using assistive technology and to incorporate the use of technology devices for students having special needs.

Teaching and Learning Goals: District leaders and staff will:

Increase the frequency of using research-supported best practices including performance-based student assessment, cooperative learning situations and project-based activities to enhance learning and achievement by integrating core curricular standards with Information and Technology standards.

Impact of Technology Goals: District leaders and staff will:

To help students become more engaged, independent learners, the school district will attain a computer to student ratio of one-to-one.

There will be challenges to implementing the plan over the next three years. However the goals and objectives of this plan are realistic, measurable and attainable, if funding and staffing levels are returned to the levels recommended by the DPI.

C. Table of Contents

D. INTRODUCTION

The School District of Altoona's Information and Technology Plan is the foundation for the application of library/media and technology services. This plan is designed to assist students, teachers, administrators, parents and community members to support the vision and mission of the school district.

The planning committee conducted a literature review of research on the use of information and technology in schools and the classroom, specifically its relationship to student academic achievement. This information was shared via literature discussions to prepare for the creation of the School District of Altoona's Information and Technology Plan.

The district's mission is "to provide a quality education in a safe environment where all students have the opportunity to prepare for today's challenges and realize tomorrow's dreams." This mission includes beliefs that, "schools, families, and community must be partners in the education of children," and that, "learning is a lifelong process."

The School Improvement Team established, through an ongoing strategic planning process, the goal of "researching and implementing curriculum using a district wide collaborative decision-making process," to increase student achievement.

These beliefs have led to an information and technology vision which states that the School District of Altoona will use information and technology services to improve student achievement by developing a set of skills that will help students survive and thrive in the 21st century. To accomplish this vision, the information and technology mission is to stimulate student learning by providing access to current information and technologies by integrating information and technology literacy across the curriculum. Recognizing the importance of parental and community involvement in the education of all students, technology and information literacy resources will be shared with the community.

Analysis/Summary of Relevant Research/Best Practices

The research examined by the planning committee points to the following:

From 1998 to the present, over 15 states (including Wisconsin, Iowa, Minnesota and Michigan) have undertaken studies to determine the impact of school library media centers on student academic achievement.

Synopsis:

There is a clear and consistent finding that is supported by this research: a school library media program, with a fulltime library media specialist, support staff, and a strong computer network (one that connects the library's resources to classrooms and labs) leads to higher student achievement, regardless of social and economic factors in a community. Other clear findings supported by research are that there is a need for adequate training and support in order for technology to be used appropriately; it must be integrated into the curriculum; use of it must be directed toward higher order thinking skills; and it is an appropriate avenue for improving communication among a school's stakeholders.

(See Appendix A for a detailed bibliography.)

Information (Library Media) & Technology research have the following points in common:

- Schools with full-time certified library media specialists and full-time library aides have higher performance on the WKCE.
- Schools where the library media specialist spends more time on instructionally-related student and teacher activities have higher WKCE scores.
- Schools with greater library media program resources for collections and technology have higher performance on the WKCE.
- Library media specialists help students acquire unique skills not taught in the classroom and information and technology skills essential for students in the 21st century.'
- School libraries provide an equalized educational opportunity for all students.
- Students have higher standardized test scores when served by a full-time school librarian.
- Principal support of the Library Media program and collaboration between classroom teachers and the media program is associated with higher academic achievement.
- Information technology that extends the reach of the Library Media program into the school's classrooms is associated with higher student achievement.
- Higher academic achievement is demonstrated where LMCs have a quality collection of materials which supports the curriculum.
- An adequate budget, required to support the LM program, is necessary for higher student achievement.
- LM staff activities relating to leadership, collaboration and technology use are predictors of student academic achievement.
- Higher academic achievement is demonstrated where state of the art technology is integrated into the information seeking/teaching/learning process.
- Higher academic achievement is demonstrated where there is cooperation between Library Media Centers and public libraries (inter-library loan).
- Academic achievement of K-12 students is higher where the Library Media specialist is a part of the planning/teaching team and works with students in a flexible schedule program.
- Media literacy training can result in young people becoming less vulnerable to the negative aspects of media exposure and more able to make good choices about how they use their time.
- Educational returns require that technology be viewed as providing tools to meet central educational goals, not as defining a new separate set of goals.
- Schools must invest in ongoing professional development, training and support services, not just in technology alone. Training teachers to integrate technology into curriculum is critical in successfully implementing technology in schools.

- The extent to which teachers are trained to use technology to support learning plays a role in determining whether technology has a positive impact on achievement.
- Access to the Internet and other resources is needed in order for students to benefit from technology.
- Educational technology plays a role in improving learning through instructional practice only when:
    - educators use a variety of models of curriculum design and learning strategies supported by technology.
    - educators support new, collaborative, professional practices.
    - administrators take an active role in the professional development of all staff..
- Trained users of technology will recognize how technology might be well used in classrooms.
- Adequate financial and staff support is essential if teachers are to use technology appropriately to promote learning for students in the classroom.
- Professional development activities should enhance teachers' curriculum, learning and assessment competencies and skill as well as classroom and instructional management competencies.
- Technology has the greatest impact when integrated into the curriculum to achieve clear measurable educational objectives.
- Higher order uses of computers are positively related to academic achievement, whereas drill and practice technology has proven not to be effective.
- Technology must be easy to access and implement in order to be used.
- Just-in-time support, assistance and encouragement must be provided for effective widespread use of technology.
- School administrators must be vested in the process of professional development in technology.
- Schools that use technology can better facilitate school-parent communication.
- The distributed technology model has proven to positively affect student outcomes.
- The use of technology has helped promote learning among students of all ability levels, but especially among those with mild learning disorders
- Students and teachers need media literacy training to become savvy consumers of information.

School District and Information and Technology Vision and Mission

The school district's information and technology program exists to support and further the district's vision, mission and educational goals and to improve student achievement. Our plan fosters collaboration and ongoing development of the Information and Technology Literacy program to support and enhance educator proficiency and student achievement. It focuses on programs and services that provide for effective teaching and learning. Effective information and technology skills are essential for students hoping to succeed in the global economy. The end result of the district's information and technology program is the development of a community of learners capable of using real-world tools to accomplish real-world tasks.

Mission

To achieve its mission, the School District of Altoona will provide:

- A Supportive Environment for Technology Use by:
    - providing an information and technology program that functions as the hub for access to a full range of information by students staff and parents
    - providing leadership in social, ethical and legal issues related to life in a digital age
    - providing intellectual and physical access to current information and technologies
    - providing information and technology resources that stimulate and promote lifelong learning for students and the community
- Professional Development for Staff by:
    - providing leadership, collaboration and professional development opportunities which support the use and integration of information and technology literacy throughout the curriculum
- Enhanced Teaching and Learning Opportunities for Staff and Students by:
    - integrating information and technology throughout the Pk-12 curriculum
    - supporting a combined ITL program to improve academic achievement
- Technology that will Impact Student Achievement by:
    - emphasizing independent learning and 21st Century skills.
    - providing for an anytime, anywhere learning environment

E. Background

Community/School District Demographics

Altoona is a community of approximately 7,000 residents, which is located adjacent to Eau Claire, WI. Although sometimes considered a "bedroom community", over two hundred small businesses make their homes in Altoona. It has a diverse economic base including office, light industrial, and small business entrepreneurs.

The district serves approximately 1,500 students. The community takes pride in its educational system and has demonstrated that pride through strong support for academic and extra curricular endeavors.

The district has one early childhood special education center, community-based 4-K program, one K-4 elementary school, one 5-8 middle school and one 9-12 high school. The K-12 facilities are connected via enclosed walkways. The school population continues to become more ethnically, socially and economically diverse. The student population includes 12 percent EEN classified students and 37 percent who qualify for the free and reduced lunch programs.

Information and Technology Committee Members (IT Team)

Chelsea Engen	Pedersen Elementary School Principal
Jan Oestreich	Altoona High School LMC Director/ IT Specialist
Bobbie Kuchta	Pedersen Elementary School LMC Director/ IT Specialist
Connie Kohlhepp	Altoona Middle School LMC Director/ IT Specialist
Greg Fahrman	School Superintendent
Jeff Pepowski	Altoona High School Principal
Mark Scheppke	Technology Coordinator/ IT Specialist/ Parent
Helen Drawbert	School Board Member/ Parent
J. Scott Thiel	Altoona Middle School Teacher
John Streif	Altoona High School Teacher
Lisa Skifstad	Altoona High School Teacher
Karen Henry	Pupil Services/Curriculum Director
Jack Wagener	Altoona Middle School Principal
Rachel Torud	Pedersen Elementary School Teacher
Judy DeShong	Altoona High School Teacher
Tammy VanBlarcom	Pedersen Elementary Teacher/ Parent
Amanda Miller	Pedersen Elementary School Media Literacy Teacher

Information and Technology Planning Committee Members

Jan Oestreich	Altoona High School LMC Director
Bobbie Kuchta	Pedersen Elementary School LMC Director
Connie Kohlhepp	Altoona Middle School LMC Director
Mark Scheppke	Technology Coordinator
Patricia Solfest	Middle School Teacher
Karen Henry	Pupil Services/Curriculum Director
Amanda Miller	Pedersen Elementary School Media Literacy Teacher

Overview/Description of the Information and Technology Planning Process

The Information and Technology Committee, which is composed of teachers, administrators, parents, community members and a school board member, meets to develop, expand, and refine the Information and Technology program. One of the goals of the committee is to monitor, evaluate and revise the current plan to reflect current research/best practices and needs assessment (WKCE, School Technology Needs Assessment (STNA)). This plan focuses on the successful and effective integration of information and technology literacy across the curriculum to enhance educator proficiency and improve student achievement. To accomplish this on-going goal, the Information and Technology Planning Committee (ITPC) continues to review research and best practices in order to produce our 3 year Information and Technology plan. Planning materials produced and presented by the Wisconsin Department of Public Instruction aided the planning committee in producing a viable plan which supports effective teaching and learning.

Members of the ITPC were delegated responsibilities for sections of the plan, including research reviews, data compilation, and document formatting. The library/media and technology personnel attended informational workshops sponsored by CESA 10, which were presented by the DPI, on information and technology planning. The draft was submitted to the Information and Technology Committee in early May, 2009 for consideration and revision. The finished plan was presented to the School Board on May 18, 2009, for their approval. The chairperson of the Information and Technology Committee will report to the Altoona Education Planning Council, a committee that oversees the educational direction of the district.

Community Resources and Adult Literacy Providers

The school district recognizes the importance of community participation in teaching and learning. The district has developed a partnership with the City of Altoona, Altoona Public Library, Indianhead Federated Library System and local community organizations to promote the sharing of resources and information. The Altoona Planning Council is a district advisory committee that includes representatives from the following stakeholder groups: teachers, administrators, parents, community members and city government. The council meets regularly to discuss and share information and educational topics of interest and concern. The school district also has a finance committee whose membership represents the diversity of the community. Meetings are held to discuss the financial issues and challenges that the school district faces. The Altoona Children's Council and Parent/Teacher Organizations also provide important community involvement in the district's schools. They provide support to teachers and programs that directly affect student achievement and quality educational programs.

In cooperation with these partners, the district has offered and continues to organize various programs that have encouraged adults in the community to learn and use information and technology. Parents and children have shared learning experiences through opportunities provided by the district. Students continue to use district information and technology resources to access print materials and on-line learning opportunities.

Adult Literacy Opportunities

The school district will continue to provide information and technology related learning opportunities for community residents. Although not a specific goal of this plan, Altoona School District staff will continue to organize and provide adult information and technology literacy learning opportunities. The district technology facilities will continue to be offered for classes to students and community members through the Chippewa Valley Technical College, CESA 10, Globe University, and UW-Eau Claire.

F. Needs Assessment/Current Status

Analysis and assessment of progress towards previous plan's goals

The previous technology plan of the school district had five goal areas:

Forward-Thinking Shared Vision

Goal 1: The district will communicate the vision, goals and initiatives, as well as the progress made by the Information and Technology program.

During the 2006-2009 plan period, members of the IT team have met with the school board periodically to communicate the vision, goals, and initiatives of the IT program. In addition to communicating with the school board, the IT plan has been published on our web site giving the community the opportunity to review the plan. Our web site offers an opportunity for community members to provide feedback and ask questions via an online forum. In analyzing and assessing the progress towards achieving this goal it is the feeling of the planning committee that the goal for the 2006-09 plan period has been met. Efforts to share information and progress towards the 2009-12 goals will continue to be a priority.

Effective Teaching and Learning

Goal 2: Integrate Information and Technology Literacy Standards (ITLS) into the curriculum to improve student achievement.

Integrating ITL standards into all curriculum areas is an ongoing process. Currently the curriculum mapping has been completed for all three schools. In the elementary school all but two of the fourth grade ITL standards are being met with many of these standards being taught by the LMC director and media literacy teacher. In the middle school all but six of the eighth grade ITL standards are being taught by classroom teachers and the LMC director. In the high school all twelfth grade ITL standards are being taught by classroom teachers and the LMC director. This information was gathered from a teacher self-assessment of the ITL standards. Assistive technology, hardware and software, was provided to aid underserved populations, including students with special needs and diverse learning abilities and styles. This will continue to be a priority in the current plan.

Educator Proficiency with Effective Teaching and Learning Practice

Goal 3: Improve district instructional staff information and technology competencies.

Staff improved their IT competencies through ongoing staff development opportunities at meetings, at one-on-one training sessions, at in-service times, and attending conferences/workshops.

The planned staff competencies rubric was not developed because the emphasis was placed on the curriculum mapping including the new initiative Link 4 Learning which was introduced during the implementation of this plan.

Systems and Leadership

Goal 4: The district will equip and staff information and technology programs to meet the vision and mission of this plan.

This goal was partially attained through the addition of a .4 FTE technology assistant, however due to budget constraints the district has decided to eliminate one FTE Library Media specialist position at the end of the 2008-09 school year. Recognizing the importance of the ITL program as essential to student achievement, the school board and administration provides as much support as possible in helping to maintain staffing and budget levels given the current financial status of schools.

Access to Information Resources and Learning Tools

Goal 5: Provide flexible and equitable access to age-appropriate information and technology resources that support the school district's mission.

Material collections at all three library media centers are continuously evaluated. A broad range of current balanced resources in a variety of formats were provided through selecting and weeding materials. New materials and technology are available to staff and students, including interlibrary loan, streaming video, on-line encyclopedias, on-line career resources, on-line information databases, and computers for student check out. Training for Family Access was provided at open house/parent-teacher conferences and continues on as just-in-time training for students and parents. Anecdotal data suggests that a majority of parents are utilizing Family Access services to access their students' progress and information.

Analysis of student proficiency

The weakest areas of performance on the WKCE 2007-2008 were: (See Appendix C)

Grade 4 – Mathematics, 27% of our students scored minimum/basic proficiency compared to 23% of students statewide; 19% of Altoona 4th grade students were at a minimal performance level vs 13% statewide.

Grade 4 – Reading, 25 % of our students scored minimum/basic proficiency compared to 17% of students statewide.

Grade 8 – Mathematics, 25% of our students scored minimum/basic proficiency compared to 24% of students statewide; 15% of Altoona 8th grade students were at a minimal performance level vs 11% statewide.

Grade 10 – Mathematics 28% of our students scored minimum/basic proficiency compared to 28% of students statewide; Altoona 10th grade students had a lower percentage of students scoring in the advanced range (22%) against a state average of 24%.

In 2007-2008 WKCE Breakout group information: less than 64% of economically disadvantaged students in grade 4 were proficient or above in Mathematics as compared to 82% of students not economically disadvantaged;

69% of grade 4 females were proficient in Mathematics compared to 81% of males;

In grade 8, 94% of females vs. 87% of males were proficient or above in Reading; in Mathematics, students with disabilities vs. students without disabilities were at 21% vs. 87% proficient or above respectively.

9% of students with disabilities were proficient or above in 10th grade Mathematics as compared to 87% of students without disabilities; and 50% of economically disadvantaged students were proficient or above on 10th grade Mathematics compared to 87% of students who were not economically disadvantaged.

In Language Arts 52% of economically disadvantaged students were proficient or above vs. 85% of students who were not economically disadvantaged in Grade 10. Students with disabilities scored 56 percentage points lower in the proficient and advanced range than students without disabilities.

Underserved and special needs populations are aided by making assistive and instructional technology equipment available for use in many classrooms and for checkout at each school's library media center. (See Appendix D)

All K-12 teachers reported which ITLS standards they addressed within their curricular areas. Teachers indicated at which level the standard was taught, ranging from introduction to mastery, and if it was assessed A report was generated that indicates that nearly all standards are being taught at this time. (See Appendix E)

Internet Safety instruction takes place at all levels in the elementary school (grades k-4), some of the lessons are taught in cooperation with the guidance counselor, lessons are based on the iSafe curriculum. At the middle school, Internet Safety lessons are part of the ITLS Curriculum (grades 5 and 6). At various times throughout the HS Curriculum, Internet safety issues are reinforced.

All students who successfully complete the following classes will be certified as having met the NCLB requirements for information and technology literacy:

Keyboarding 5

Library Media and Technology 5

Library Media and Technology 6

Computer Applications 6

Computer Applications 7

Computer Applications 8

Analysis of Educator Proficiency

Introduction to the STNA Process

In order to determine the current status and future needs of the Information and Technology program within the School District of Altoona, the STNA Technology Assessment process was completed in January 2009 as a follow up to the enGauge process which was completed in the spring of 2006.

The STNA process measures much of the same framework that the enGauge evaluation tool measured. STNA is an online self-reporting tool that administrators and teaching staff participated in to identify their strengths and weaknesses, and those of the ITL program within the School District of Altoona. Listed below is a summary of the findings from the STNA process. (STNA Home Page) (See Appendix B to view the STNA Report.)

Summary of findings:

The areas of enGauge have been replaced in the STNA process by the following: Supportive Environment for Technology Use, Professional Development, Teaching and Learning, and Impact of Technology.

Supportive Environment for Technology Use

The Administration supports technology and the need for integration with the curriculum to enhance learning and achievement. Technology systems are in place to assist with parent communication such as *Family Access* at all grade levels. The district also works with CESA 10, Cluster A and other CESA 10 schools, as well as the District's curriculum director, the Instructional Computer Coordinator, and LMC Directors to provide necessary staff development and resources in an efficient and cost effective manner. Results for the STNA surveys show strong support from teaching staff for the use of information and technology resources in the teaching and learning process.

Professional Development

The STNA process provided vital information on educator proficiency. A majority of staff in the district feel that staff development opportunities are relevant, ongoing and beneficial. An area of weakness from the STNA survey was lack of opportunities to evaluate the learning in-services. With this noted, efforts will be made to allow for additional staff feedback. A high percentage of teachers indicated that they would benefit from professional development on the use of research-based best practices as they relate to information and technology. Also educators pointed out a need to provide time resources to align curriculum and information and technology standards. Using Link4Learning.com teachers are integrating core curriculum with information and technology standards. The completion of this curriculum mapping project is a goal of this plan and will continue to be a major focus of in-service time.

Analysis of Effective Teaching and Learning Practices

A high number of teachers responded through the STNA survey that they never or rarely use technology-enhanced performance-based student assessment, project-based learning, and cooperative learning situations. Students use technology for productivity applications, communication and collaboration, for accessing online resources and research tools. Technology tools are also used regularly to solve problems and support higher-order thinking skills. From the data gathered a teaching learning goal will be to increase the frequency of using research-supported best practices including performance-based student assessment, cooperative learning situations and project-based activities to enhance learning and achievement by integrating core curricular standards with Information and Technology standards.

Impact of Technology

Efforts are ongoing to provide for more of teaching of integrated standards by the teachers and Information and Technology professionals. In an anecdotal review of library usage and IT professionals' schedules, the integration of ITL standards occurred when there was collaborative planning between classroom teachers and ITL professionals.

Students with disabilities have access to assistive or modified technology as is necessary to provide appropriate instruction. The Altoona School District also is a consortium member with CESA #10 special education which includes consultation for assistive technology needs. The district also works with WATI to gain technology through group buys that are available through the state.

IT professionals purchase through CESA 10, WILS, and TEACH state contract to maximize value in purchasing resources.

The library media centers provide a structured environment for collecting and analyzing information which helps teachers and administrators make informed decisions that affect teaching and learning.

The School District of Altoona in cooperation of the Cluster A consortium provides access to the Cluster A Virtual School. We have one student attending.

Analysis of Access to Information Resources and Learning Tools

Each building includes an LMC with an attached computer lab which is available for student and staff use from 7:30 a.m. to 3:30 p.m. daily. Each LMC has numerous up to date computers and media for research and productivity. Each LMC allows students flexible access to all LMC resources and labs throughout the school day. Additional computer labs can be scheduled by teachers for class use.

Information and technology classes are taught by the library media specialist and the media literacy teacher in the elementary school. In the middle school and the high school, information and technology classes are taught by the library media specialist and the business education teachers.

According to our STNA survey results, 75.5% of teachers in the elementary school, 57% of teachers in the middle school, and 71% of teachers in the high school believe that they have sufficient computer hardware available for their use. When asked if computer labs can be flexibly scheduled for equitable access to resources and instruction, 49% of elementary, 58% of middle school, and 70% of high school teachers agreed or strongly agreed. When asked if the media center can be flexibly scheduled to provide equitable access to resources and instruction, 74% of the elementary school, 58% of the middle school, and 86% of the high school teachers agreed or strongly agreed.

Technology equipment is allowed to be checked out for students, including: digital cameras, digital video cameras, laptops, flash drives, and AlphaSmarts.

Analysis of Support Systems and Leadership (Staffing) for Library Media and Instructional Technology Programs

Our current staffing and district program leadership includes the following:

Each school library media center in our district is currently staffed by a full-time certified library media specialist as well by as a paraprofessional. Beginning in the 2009-2010 school year, the staffing level of the library media centers will decrease by 1.0 FTE library media specialist, leaving the three schools in the district with a total of 2.0 FTE library media specialists. The district currently has one full-time Instructional Technology Coordinator and a .4 FTE technology assistant.

The on-going role of the IT team is to provide leadership, support, training, and collaboration with teachers, leading to the integration of ITL standards. The professional development of the IT leaders in our district is extensive with the Instructional Technology Coordinator finally earning his master's degree, and the three library/media directors each possessing master's degrees and extensive experience, including one library media specialist possessing National Board Certification. All of the IT professionals continuously seek

ongoing education through various avenues such as WEMTA, WLA, CESA, and university courses. Administrators foster an environment that is supportive of teachers integrating information and technology literacy to improve student achievement.

Links to Altoona School Board policies regarding information and technology are included in section L later in this document.

Analysis of Resources/Fixed Assets

Alignment of ITLS to the Local Curriculum

During the last IT plan period, teachers in each of the three schools completed a curriculum map indicating where the ITLS were being taught. (See Appendix E) An overwhelming majority of the ITLS are being taught within the local curriculum. The curriculum mapping project will be on-going in Link4Learning. Opportunities for staff development on the use of research-based best practices which incorporate integrating information and technology standards will be provided during the next three years.

Learning Tools

The School District of Altoona offers students the opportunity to use both Macintosh and Windows operating systems. Offering students a choice of computer systems provides a broader computing experience. The district current level of 650 computers, has provided good access for students and staff information resources. According to STNA results, less than 50% of the staff believe, that technology has helped their students become independent learners and self-starters. To fully realize the potential of learning through the use of technology, a one-to-one computing environment will be explored during this planning period.

The technology coordinator, along with outside partners, provides the maintenance and repair of equipment. The district technology coordinator keeps a current inventory of the technology assets for the district. For a complete list of hardware and software standards and inventory, contact the School District of Altoona technology coordinator at:

School District of Altoona
c/o Mark Scheppke
1903 Bartlett Ave.
Altoona, WI 54720
715-839-6168
mscheppke@altoona.k12.wi.us

Computer Hardware

Each teacher in the district has in his/her classroom an up-to-date computer with Internet and e-mail access as well as on-line access to the library/media collection throughout the district. Hardware purchases are ongoing and are reviewed and approved by the Information and Technology committee. Total cost of ownership is being addressed by minimizing the wide variety of models and types of equipment that the district purchases. By limiting the number of different models of equipment purchased, maintenance costs and tech support requirements should be reduced. All technology purchases are approved and inventoried by the technology coordinator. The school district has approximately 650 networked computers available for student use. Each year many new computers are purchased to replace old

equipment. Although the computer-to-student ratio of one-to-one would greatly increase access to learning resources in an anytime, anyplace learning situation, the school district's financial situation has not allowed that ratio to be realized. The current computer-to-student ratio of 1-3 is a ratio that the district has been able to maintain. This ratio definitely hinders teaching efforts and access to online resources. The district's replacement schedule is approximately 8-9 years, rather than a more ideal 4-5 years. It will be a major initiative of this 2009-2012 Information and Technology plan to realize a one student to one computer educational environment for grades 3-12. The successful realization of this goal will require the cooperation of students, teachers, parents, the administrative team and the school board.

The elementary school has one computer lab and one mobile wireless lab that are both Microsoft Windows-based. The middle school has three labs and one mobile lab that are Microsoft Windows-based. The high school has five Microsoft Windows-based labs and many mobile computers for teacher and student checkout. The elementary school library media center has 9 computers, the middle school library media center has 11 computers and the high school media center has 15 computers for student use.

Audio-Visual Hardware

The district has many up-to-date pieces of audio-visual equipment that is available for staff and student use. The district has 12 digital still cameras and 10 video cameras, 8 document cameras, 40 digital projectors, 3 laminators, and 29 scanners. Each classroom is outfitted with a television. DVD and VCR players are available from the library. Abiding by copyright and fair-use laws the media centers offer DVD recording services for educational purposes. Acoustic and sound systems are provided by the media centers for large group presentations. Traditional equipment such as overhead projectors and tape recorders are also available for checkout.

Instructional Technology, Library Media Materials/Resources

Library Media/Research Software

Follett's Destiny Resource Management Solution
SIRS Researcher
Worldbook Online
Badgerlink
Netlibrary
Vocational Biographies
WisCareers Database
WISCAT
Gale Biography Resources
Teaching Books
Soundzabound

Library Media Print and Audio-Visual Materials

Library Collection Analysis

Collection Analysis

Each LMC has 8,000-10,000 volumes, print and non-print, (books, periodicals, AV) to support curriculum and to provide for recreational reading. The library media directors work closely with classroom teachers to provide resources that meet the needs of the curriculum. The District's Materials Selection Policy provides the guidelines for the inclusion and weeding of resources for the media centers. Current library media software does not allow for analysis of collection materials. Follett's Collection Analysis will be done periodically to examine the quality/age of the LMC collections after installation of new Destiny software.

Software - Students have access to a large variety of software titles. Acquisition of software is primarily accomplished through building curriculum committees and individual teachers with input from the technology coordinator and the Library/Media directors. Software titles are kept in an inventory by the technology coordinator and the Library Media Directors.

School Administration Software

Skyward PAC
DPI Report Applications
Link4Learning

Network Administration Software

Windows 2003 Server
Microsoft IIS
Internet Filtering Software – Lightspeed System, Total Traffic Control
Mail Server Software – AltN, Mdaemon with Web Client
Deployment and Imaging Software – Altiris, Deployment Solution
Archiving and Network Usage Software – Sergeant Labs, Aristotle

Personal Productivity Software

Microsoft Office XP (Windows) 2001 (Macintosh)
Skyward's Educator Access for Middle and High School

Security Software

Lightspeed Systems, Security Agent Anti-Virus

Networking and Telecommunications Capacities - The district is connected to the Internet via a 20 mbps data circuit provided by Charter Communications. All staff and students are provided with file server space and an e-mail account. Each classroom is equipped with a phone; and a voice-mail box is provided for staff. The School District of Altoona has a network comprised of fiber and Cat 5 wiring with at least three data and one voice drop in every classroom. The network backbone has gigabit speed equipment with 100 mb speed to desktops. Internet access is provided to all classrooms and labs. The school district gives parents/guardians access to their child/children's school information through a secure web site. Parents/guardians can access student attendance, grades, progress reports,

food service and discipline information from the district's web site. Students in the middle and high school can access their current grades through Skyward's Student Access portal. Other information that is available on the web site includes meeting minutes, school and sports calendars, student assignments, and links to educational resources. The current wireless infrastructure consists of numerous independent IEEE 802.11g access points covering many but not all instructional areas of the district's buildings. The wireless network is protected from unauthorized users and computers by a RADUIS server. To prepare for a one-to-one computing environment the wireless infrastructure would have to be upgraded to adequately provide bandwidth to the additional wireless users. Financial resources would need to be expended on a site survey and IEEE 802.11n infrastructure before implementing a one-to-one computing plan.

G. Plan Goals and Objectives

The Information and Technology goals for the 2009-2012 plan are as follows:

Supportive Environment for Technology Use Goals: District leaders will:

Goal 1: Maintain or improve the current level of communication by sharing with district stakeholders the vision, goals, and initiatives, as well as the progress made by the Information and Technology Program.

Objective: Inform the stakeholders at least semi-annually, how information and technology literacy improves student achievement.

Goal 2: Fund and support the Information and Technology Program, with one FTE library media specialist at the elementary, middle and high school, in order to assist in meeting the vision and mission of the School District of Altoona. Consider reinstating the Library/Media specialist position that was eliminated at the end of the 2008-09 school year, provided there is adequate funding from the state.

Objective A: Restore library media staffing to DPI recommended levels.

Objective B: Increase library media center budgets by 20% over the next 3 years.

Professional Development Goals: District leaders will:

Goal 3: Provide time and assistance to populate our online curriculum database Link4Learning, integrating core curriculum and Information and Technology standards.

Objective: In-service committee will schedule time for training and inputting curriculum data integrating ITL standards until all core curricular areas are completed.

Goal 4: Provide training and opportunities for staff to integrate information and technology into their lessons, using research-based, best practices, including performance-based assessment and project-based learning.

Objective: Provide opportunities for teachers to attend workshops and conferences where teachers gain insight into current trends and research-based best practices in the integration of information and technology.

Goal 5: Provide opportunities for staff to develop differentiated instructional strategies using assistive technology and to incorporate the use of technology devices for students having special needs.

Objective: Provide opportunities for teachers to attend workshops and conferences where teachers gain insight into current trends and research-based best practices in the use of assistive technology.

Teaching and Learning Goals: District leaders and staff will:

Goal 6: Increase the frequency of using research-supported best practices including performance-based student assessment, cooperative learning situations and project-based activities to enhance learning and achievement by integrating core curricular standards with Information and Technology standards.

Objective: Utilize currently available resources, send staff to conferences and workshops and promote the investigation of research-supported teaching practices.

Impact of Technology Goals: District leaders and staff will:

Goal 7: To help students become more engaged, independent learners, the school district will attain a computer to student ratio of one-to-one.

Objective: Study, develop, and implement a plan to provide students with a sustainable one-to-one computing environment for anytime, anywhere learning.

There will be challenges to implementing the plan over the next three years. However the goals and objectives of this plan are realistic, measurable and attainable, if funding and staffing levels are maintained.

H. Action and Implementation Plans

Supportive Environment for Technology Use

Need Statement: The 2005 enGauge process revealed that the school district needs to communicate the vision, goals, and initiatives of the Information and Technology program more effectively. The follow-up STNA survey in 2009 shows gains in some indicators. Better communication of the vision will promote more support for the plan.

Goal 1: Maintain or improve the current level of communication by sharing with district stakeholders the vision, goals, and initiatives, as well as the progress made by the Information and Technology Program.

Objective: Inform the stakeholders at least semi-annually, how information and technology literacy improves student achievement.

Activities:	Publish the information and technology plan on the district web site.
Resources/Budget:	Certified IT plan - $200/yr
Person/Team Responsible:	IT specialists
Timeline/Completion Date:	2009-2012
Measure/Method:	Publication of plan and regular dissemination of information to stakeholders highlighting progress toward plan goals.
Policy Change:	None needed

Activities:	Report in a variety of formats, significant news, progress, initiatives and research data to district stakeholders.
Resources/Budget:	Certified plan and preparation time - $200/yr
Person/Team Responsible:	IT Specialists, Administrative Team, IT Team Members
Timeline/Completion Date:	2009-2012
Measure/Method:	Various meeting minutes (Administrative Council, School Board, Planning Council) indicating distribution of information.
Policy Change:	None needed

Goal 2: Fund and support the Information and Technology Program, with one FTE library media specialist at the elementary, middle and high school, in order to assist in meeting the vision and mission of the School District of Altoona. Consider reinstating the Library/Media specialist position that was eliminated at the end of the 2008-09 school year, provided there is adequate funding from the state.

Objective A: Restore library media staffing to DPI recommended levels.

Objective B: Increase library media center budgets by 20% over the next 3 years.

Activities:	Inform the administrative team and the school board of the vital role the library media specialist plays in student achievement and advocate for the reinstatement of the eliminated library media specialist position.
Resources/Budget:	$70,000
Person/Team Responsible:	Media Specialists, Technology Coordinator, IT committee
Timeline/Completion Date:	2009-2012
Measure/Method:	The hiring of 1 additional FTE library media specialist
Policy Change:	None needed

Activities:	Inform the administrative team and the school board of the need for new media materials and information resources that support and enhance the curriculum.
Resources/Budget:	$10,000
Person/Team Responsible:	Media Specialists, Technology Coordinator, IT committee
Timeline/Completion Date:	2009-2012
Measure/Method:	Media center budgets increasing by 20% beyond the 2008-09 budget
Policy Change:	None needed

Professional Development

Need Statement: A review of literature indicates that the integration of ITLS into curricular areas positively impacts student achievement. Completed curriculum maps indicate that almost all ITLS are being integrated into the curriculum. STNA data indicates that staff desire and would benefit from additional opportunities to integrate ITL standards into core curriculum.

Goal 3: Provide time and assistance to populate our online curriculum database, Link4Learning, integrating core curriculum with Information and Technology standards.

Objective: In-service committee will schedule time for training and inputting curriculum data to integrate ITL standards until all core curricular areas are completed.

Activities:	Meet with the in-service committee to continue to ensure efforts to complete the curriculum mapping project is continued through the duration of this plan period.
Resources/Budget:	$300/yr.
Person/Team Responsible:	In-service committee, curriculum committees, Admin team, IT specialists, teachers
Timeline/Completion Date:	2009-2012
Measure/Method:	On-going construction of our curriculum database,
Policy Change:	None needed

Goal 4: Provide training and opportunities for staff to integrate information and technology into their lessons, using research-based, best practices, including performance-based assessment and project-based learning.

Objective: Provide opportunities for teachers to attend workshops and conferences where teachers shall gain insight into current trends and research-based best practices in the integration of information and technology.

Activities:	Encourage teachers to attend information and technology rich workshops or conferences such as TIES, WEMTA
Resources/Budget:	$5000/yr
Person/Team Responsible:	IT specialists, Admin team, IT committee
Timeline/Completion Date:	2009-2012
Measure/Method:	Each year the group attending a larger conference such as TIES will report to the IT committee how they will incorporate knowledge learned at the conference in their classrooms.
Policy Change:	None needed

Activities:	Continue to provide training on the use of productivity tools.
Resources/Budget:	$2,000/yr
Person/Team Responsible:	IT specialists, in-service committee, teachers
Timeline/Completion Date:	2009-2012

Measure/Method:	Completion of scheduled training events each year
Policy Change:	None needed

Activities:	Develop and use an evaluation tool that allows staff to provide feedback regarding training opportunities in which they participate.
Resources/Budget:	None needed
Person/Team Responsible:	IT specialists, in-service committee, teachers
Timeline/Completion Date:	2009-2012
Measure/Method:	Completed evaluation tool and analysis of participant feedback.
Policy Change:	None needed

Goal 5: Provide opportunities for staff to develop differentiated instructional strategies using assistive technology and to incorporate the use of technology devices for students having special needs.

Objective: Provide opportunities for teachers to attend workshops and conferences where teachers gain insight into current trends and research-based best practices in the use of assistive technology.

Activities:	Encourage teachers to attend information and technology rich workshops or conferences that address the use of assistive technologies and include the use of these technologies into the classroom.
Resources/Budget:	$2000/yr
Person/Team Responsible:	IT specialists, Admin team, regular and special educators
Timeline/Completion Date:	2009-2012
Measure/Method:	Each year, staff attending conferences and workshops will report new instructional strategies to their colleagues.
Policy Change:	None needed

Teaching and Learning

Need Statement: The STNA needs assessment indicates that a low percentage of staff consult professional materials to identify research-supported practices and their lessons include few technology enhanced, learner-centered teaching strategies and assessments.

Goal 6: Increase the frequency of using research-supported best practices including performance-based student assessment, cooperative learning situations and project-based activities to enhance learning and achievement by integrating core curricular standards with Information and Technology standards.

Objective: Utilize currently available resources, send staff to conferences and workshops and promote the investigation of research-supported teaching practices.

Activities:	Promote currently available resources and solicit input for purchasing additional professional materials.
Resources/Budget:	$500/yr
Person/Team Responsible:	IT specialists, Admin team
Timeline/Completion Date:	2009-2012
Measure/Method:	IT specialists will speak at staff meetings and email information about new materials.
Policy Change:	None needed

Activities:	Encourage teachers to attend information and technology rich workshops or conferences that address the use of research-supported best practices.
Resources/Budget:	$2000/yr
Person/Team Responsible:	IT specialists, Admin team, teachers
Timeline/Completion Date:	2009-2012
Measure/Method:	Each year, staff attending conferences and workshops will report new instructional strategies to their colleagues.
Policy Change:	None needed

Activities:	Promote the use of research-supported best practice pedagogy through the district's personal in-service plan program.
Resources/Budget:	$1,000/yr
Person/Team Responsible:	IT specialists, Admin team, teachers
Timeline/Completion Date:	2009-2012
Measure/Method:	Completed and implemented PIP
Policy Change:	None needed

Impact of Technology

Needs Statement: According to our STNA survey, a majority of teachers believe that technology has helped students become more engaged, independent learners. Additionally, they believe that technology helps students achieve greater academic success. The current computer to student ratio of one-to-three impedes student access to technology resources thus limiting the benefits that may be realized through an improved student to computer ratio.

Goal 7: To help students become more engaged, independent learners, the school district will attain a computer to student ratio of one-to-one.

Objective: Study, develop, and implement a plan to provide students with a sustainable one-to-one computing environment for anytime, anywhere learning.

Activities:	Research programs where a one-to-one computing environment exists to determine if students are achieving higher levels of academic success and are more engaged learners.
Resources/Budget:	$2,000
Person/Team Responsible:	IT committee
Timeline/Completion Date:	2009-2010
Measure/Method:	Finished findings and recommendations for a one-to-one computing plan.
Policy Change:	None needed

Activities:	If it is decided that the one-to-one computer plan is viable, develop policies and implementation strategies
Resources/Budget:	$2,000
Person/Team Responsible:	IT committee, school board
Timeline/Completion Date:	2010-2011
Measure/Method:	Finished and board approved policies and implementation plan.
Policy Change:	One-to-one computing implementation policies

Activities:	If it is decided that the one-to-one computer plan is viable, an infrastructure upgrade to support one-to-one computing will be installed.
Resources/Budget:	$75,000
Person/Team Responsible:	IT committee, contractor
Timeline/Completion Date:	2010-2011
Measure/Method:	Completed infrastructure upgrades
Policy Change:	None needed

Activities:	If it is decided that the one-to-one computer plan is viable, purchase hardware and software to implement one-to-one computer plan.
Resources/Budget:	$120,000
Person/Team Responsible:	IT committee, school board
Timeline/Completion Date:	2011-2012
Measure/Method:	Finished and board approved policies and implementation plan.
Policy Change:	One-to-one computing implementation policies

I. BUDGET SUMMARY

Goals and Objectives	2009-2010	20010-2011	2011-2012	Sources
1.	$400	$400	$400	Local
2.A.	$0	$70,000	$70,000	Local
2.B.	$0	$10,000	$10,000	Local/Common School
3.	$300	$300	$300	Local/Title II-D
4.	$7,000	$7,000	$7,000	Local
5.	$2,000	$2,000	$2,000	Local/IDEA/ARRA
6.	$3,500	$3,500	$3,500	Local
7.	$2,000	$77,000	$120,000	Local
Totals	**$15,200**	**$170,200**	**$213,200**	

J. Dissemination to Stakeholders

Reporting of information and technology-related activities will take place through the Altoona Educational Planning Council and by the district Information and Technology Committee members. The chairperson of the IT committee will report to the Altoona Planning Council and also to the school board and community at school board meetings. Information will also be distributed to the community through district newsletters and postings on the district web site. News releases will be provided to various media outlets, such as newspapers and television stations, as educational activities incorporating information and technology occur within the schools.

K. Monitoring, Evaluation, and Revision

The monitoring of the information and technology plan will be continuous and accomplished by the District Information and Technology Committee. Each spring the IT committee will evaluate and review progress towards the completion of each action step of the plan using data collected from district sources including parent surveys, curriculum committee feedback, and student assessment data from WKCE. Other devices used to monitor and evaluate progress may include resource usage reports, curriculum maps, collection maps, professional development evaluations, and inventories and purchases. Mid-course corrections may be implemented in response to new opportunities and developments.

In 2009, the results of the STNA process was used to help evaluate the previous plan's progress towards the goals and was used in developing the current Information and Technology plan. The committee will determine if the objectives have been attained based on the completion of the action plan steps.

The chairperson of the IT committee will report to the administrative council, the school board, and the Altoona Educational Planning Council. Planning Council members and building administrators will then distribute information to all staff. Community members will be informed through normal district information avenues, as described above in Section J.

The IT committee will also annually review the current plan to determine if changes to action plans, objectives, and goals are warranted based on current district needs indicated by curricular revisions, student assessment data, and financial information. Collecting data throughout this process will provide the IT committee with a clear picture of the district's information and technology needs for the next three-year planning cycle.

L. Required Policies Approved by School Board

Student Technology and Internet Safety Policy – CIPA, AUP

Staff Technology and Internet Safety Policy

Material Selection Policy

Reconsideration Policy

Inter-Library Loan Policy (Resource Sharing)

Software Copyright Policy

Copyright Policy – Including digital and web resources

Student Use of Electronic Devices Policy

Technology Concerns for Students with Special Needs

M. Appendices

Appendix A – Bibliography

Appendix B – STNA Report

Appendix C – WKCE Testing Summaries

Appendix D – Assistive Technology Narrative

Appendix E – 4th, 8th, 12th grade results from ITLS Curriculum Mapping

Appendix F – Hardware and Software Inventories

Appendix A – Bibliography

3R's add up to a fourth- Rudimentary – Source: By Jennifer Buske, Washington Post Staff Writer Thursday, August 28, 2008; Page PW03

American Academy of Pediatrics. Media Education. Pediatrics (August 1999) 104:341-43

Baker, E., (2000, July). *Instructional approaches used to integrate literacy and technology*. *Reading Online, 4* (1). Available: http://www.readingonline.org/articles/baker/

Baker, E.A., & Kinzer, C.K. (1998). Effects of technology on process writing: Are they all good? In T. Shanahan & F. Rodriguez-Brown (Eds.), Forty-seventh Yearbook of the National Reading Conference (pp. 428-440). Chicago, IL: National Reading Conference.

Baker, E.A., Rozendal, M., & Whitenack, J. (in press). Audience, compositions, and computers: Examining the nature and impact of audience. Journal of Literacy Research.

Baumgartner, E. & Reiser, B. J. (1998). Merging engineering and scientific reasoning: High school students' use of scientific evidence in design projects. San Diego, California.

Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (1999). How people learn: Brain, mind, experience, and school. National Academy Press, Washington, DC.

Byrom, E. (1998). Factors influencing the effective use of technology for teaching and learning: Lessons learned from the SEIR-TEC intensive site schools [Online]. Available: http://www.serve.org/seir-tec/publications/lessons.html

The CEO Forum on Education and Technology, June 2001

Children and Computer Technology: Analysis and Recommendations. The Future of Children. Vol 10. No 2. Fall/Winter 2000. pg 12

Connecting the Digital Dots Literacy of the 21 Century - Source : Teacher Librarian: Feb2008, Vol. 35 Issue 3, p13-16, 4p

Coughlin, Edward C., Lemke, Cheryl, (1999) Professional Competency Continuum: Professional Skills for the Digital Age Classroom, Milken Exchange

Fatemi, E. (1999, September 23). Building the digital curriculum. Education Week on the Web [Online]. Available: http://www.edweek.org/sreports/tc99/articles/summary.htm

Getting Information Literacy Standards Noticed: How Promoting These Standards Just Might Save Your Job. Source: Library Media Connection; Nov2007, Vol. 26 Issue 3, p28-30, 3p

Henriquez, A., & Riconscente, M. (1999). Rhode Island Teachers and Technology Initiative: Program evaluation final report. New York: Education Development Center, Center for Children and Technology.

Is Your School Librarian Highly Qualified? -Source: Education Digest; Mar2008, Vol. 73 Issue 7, p17-20, 4p Author: Kaplan, Allison G

Kleiman, G., (2000) *Myths and Realities about Technology in K-12 Schools* . The Digital Classroom: How Technology is Changing the Way We Teach and Learn. The Center for

Online Professional Education (COPE) at Education Development Center, Inc. (EDC). http://www.edc.org/LNT/news/Issue14/feature1.htm

Lance, Curry, K., Rodney, M., Hamilton-Pennell, C. (2000), available online at: http://www.dpi.state.wi.us/dpi/dltcl/imt/relevres.html

Linn, M. C. & Hsi, S. (2000). Computers, teachers, peers: Science learning partners. Mahwah, NJ: Lawrence Erlbaum Associates.

Linn, M., Kessel.C., Lee, K., Levenson, J., Spitulnik,, M., Slotta, J., (2000) Teaching and Learning K-8 Mathematics and Science Through Inquiry: Program Reviews and Recommendations. http://www.ncrel.org/engauge/resource/techno/k8.htm

Lockwood, A. T. (1999). The promise and potential of professional development. Unpublished manuscript.

Mann, D. (1999). Documenting the effects of instructional technology: A fly-over of policy questions (Secretary's Conference on Educational Technology). Retrieved from http://www.ed.gov/Technology/TechConf/1999/whitepapers/paper6.html

Mann, D., Shakeshaft, C., Becker, J., & Kottkamp, R. (1999). West Virginia story: Achievement gains from a statewide comprehensive instructional technology program. Retrieved from the Milken Family Foundation Web site: http://www.mff.org/ pubs/ME155.pdf

McKenzie, J. (1998, April). Adult technology learning: Creating learning cultures with just-in-time support. ESchool News [Online]. Available: http://staffdevelop.org/adult.html

Media Literacy Online Project http://interact.uoregon.edu/medialit/homepage

National Center for Education Statistics. (1999a). Internet access in public schools and classrooms: 1994–98. Washington, DC: U.S. Department of Education. (NCES No. 1999017)

Networking Teachers Coaxing Colleagues To Use Technology– Source: Education Week; 9/10/2008, Vol. 28 Issue 3, p10-11, 2p, 2 color , Author: Manzo, Kathleen Kennedy

Penuel, B., Golan, S., Means, B., & Korbak, C. (2000). Silicon Valley Challenge 2000: Year 4 report. Menlo Park, CA: SRI International.

Plugging In (2001) NCREL

The Power of Connections – Source: American School Board Journal; Sep2008, Vol. 195 Issue 9, p52-54, 3p, 1 color

Ram Singh, R., Means, B. *Technology and Education Reform.* A Research Project Sponsored by the Office of Educational Research and Improvement, U.S. Department of Education. Conducted by SRI International http://www.ed.gov/pubs/EdReformStudies/EdTech/overview.html#authentic

Reboot Camp: Get into Tech Shape – Source: School Library Journal, v54 n5 p56-57 May 2008. 2 pp. Author: Valenza, Joyce; Johnson, Doug

Rodriguez, G., Knuth, R., (2002) *Critical Issue: Providing Professional Development for Effective Technology Use*: NCREL. http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te1000.htm

Sandholtz, J. H. (2001). Learning to teach with technology: A comparison of teacher development programs. Journal of Technology and Teacher Education, 9(3), 349–374.

Schacter, J. (1999) The Impact of Educational Technology on Student Achievement. What the most current research has to say. Milken Exchange on education technology.

Silverstein, G., Frechtling, J., & Miyaoka, A. (2000). Evaluation of the use of technology in Illinois public schools: Final report(prepared for Research Division, Illinois State Board of Education). Rockville, MD: Westat.

Sivin-Kachala, J., & Bialo, E. (2000). 2000 research report on the effectiveness of technology in schools (7th ed.). Washington, DC: Software and Information Industry Association.

Slotta, J. D. & Linn, M. C. (2000). How do students make sense of Internet resources in the science classroom? In M.J. Jacobson & R. Kozma (Ed.), Learning the sciences of the 21st century. Mahwah, NJ: Lawrence Erlbaum Associates.

Staff Development: Still an Important Role Source: MultiMedia & Internet@Schools; Jan/Feb2008, Vol. 15 Issue 1, p35-37, 3p Author: Anderson, Mary Alice

Statham, D. S., & Torell, C. R. (1999). Technology in public education in the United States. Retrieved from http://www.tea.state.tx.us/Textbooks/archives/litrevie.htm

Statham, D. S., & Torell, C. R. (1999). Technology in public education in the United States. Retrieved from http://www.tea.state.tx.us/Textbooks/archives/litrevie.htm

Study reveals library media programs contribute to student academic success – Source: State of Wisconsin – Department of Public Instruction This study was conducted by Ester G. Smith, Ph.D. EGS Research & Consulting 6106 Ledge Mountain Austin, TX 78731

Tech Without Support: IT Snags Hamper Schools' Technology Use Source: edutopia.com by: Alexandra R. Moses

Use of Computer Technology to Help Children with Special Needs. The Future of Children. Vol 10. No 2. Fall/Winter 2000

Valdez, G., McNabb, M., Foertsch, M., Anderson, M., Hawkes, M., and Raack , L., (2000) *Computer-Based Technology and Learning: Evolving Uses and Expectations*: North Central Regional Educational Laboratory

Wahl, E. (2000). Cost, Utility, and Value. New York: Education Development Center, Center for Children and Technology

Wenglinsky, H. (1998). Does it compute? The relationship between educational technology and student achievement in mathematics. Policy Information Center, Educational Testing Service.

White, N., Ringstaff, C., Kelley, L., (2002) Getting the Most from Technology in Schools. WestEd

Why We Need to Teach 21st Century Skills--And How to Do It. – Source : MultiMedia & Internet@Schools; Jul/Aug2008, Vol. 15 Issue 4, p10-13, 4p

Appendix B – STNA Report

Pedersen Elementary School STNA Report

Altoona Middle School STNA Report

Altoona High School STNA Report

Appendix C – WKCE Testing Summaries

WKCE/Turning Leaf Testing Results

Appendix D – Assistive Technology Narrative

SCHOOL DISTRICT OF ALTOONA

TECHNOLOGY CONCERNS FOR STUDENTS WITH SPECIAL NEEDS

The School District of Altoona shall provide special education and related services designed to meet the unique needs of each student with a disability, based on his/her individualized education program (IPE), as required by law.

The term "related services" means transportation and such developmental, corrective and other supportive services as required for the student with a disability to benefit from special education. "Assistive technology devices" and services would clearly be a functional part of the services defined. An "Assistive technology device" means any item, piece of equipment, product or system, which is used to increase, maintain, or improve functional capabilities of students with disabilities. "Assistive technology service" means any service that directly assists a student with a disability in the selection, acquisition or use of an assistive technology device.

A student's need for assistive technology shall be determined on a case-by-case basis. If an IEP team determines that a particular assistive technology item will provide a favorable benefit for a student's education program, the technology may be provided to implement the IEP.

Those students having special needs but not requiring a formal IEP according to law, which may include but are not limited to migrant students, homeless students, students living with poverty, and English Language Learners, will also be considered for assistive technology devices and/or services.

The District is responsible for evaluation in areas in which assistive technology may be a factor.

LEGAL REF: Chapter 115, subchapter V
Wisconsin Statutes
Individuals with Disabilities Education Act
Amendments of 1997

Appendix E – 4th, 8th, 12th grade results from ITLS Curriculum Mapping

4th Grade Curriculum Mapping Project

8th Grade Curriculum Mapping Project

12th Grade Curriculum Mapping Project

Appendix F – Hardware and Software Inventories

Complete hardware and software inventories are available upon requests. Contact Mark Scheppke, Technology Coordinator, Altoona School District, 1903 Bartlett Ave, Altoona, WI 54720. 715-839-6168, mscheppke@altoona.k12.wi.us