

# *Oregon School District*

## **District Information and Technology Plan**

**Effective July 1, 2007 – June 30, 2010**

Signature of School District Administrator\_\_\_\_\_

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Plan Contact:  
Jon Tanner, Technology Director  
Oregon School District Office  
123 E. Grove Street  
Oregon, WI 53575  
Phone: 608-835-4024  
Email: [jst@oregon.k12.wi.us](mailto:jst@oregon.k12.wi.us)

## Executive Summary

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This summary is designed to give an overview of this document for the reader who does not need to review all the information provided.

This document is the Oregon School District's three-year plan for the Information and Technology Literacy Program, formerly known as the Library and Computer Technology Programs. The planning process started on October 9, 2006, when representatives of the writing team participated in a DPI planning workshop at CESA 2. Stuart Ciske provided guidance in achieving a successful planning process. The writing team comprehensively analyzed the current plan's status, evaluated the progress toward meeting goals in previous plans, and analyzed the results of the enGauge on-line survey in the fall of 2006.

The previous (2003-2007) technology plan focused on maintaining status quo within financial constraints. Strategic planning has provided the technology program with predictable and consistent funding for the past years, and is expected to continue in the near future. **The 2007-2010 plan identifies several key elements on which to focus our current efforts to achieve maximum benefit for our students.**

The District has built, and currently enjoys, a strong information and technology literacy program. Each school has a substantial library with a full time Library Media Specialist, district-wide networking infrastructure, access to computing technology, Internet access in every classroom, and a part-time Technology Resource Teacher. Some challenges we now face include the need for more Internet bandwidth as more applications are accessed via the web; stability and reliability of LAN and WAN services to support critical functions such as network-based instruction and VoIP; updating board policies and school rules to stay relevant to changing technologies; communication with stakeholders regarding our technology program; and effectively integrating information and technology literacy into the curriculum and instructional practices to maximize student achievement.

The information and technology goals for this plan are selected based on the District's current initiatives and the results of the enGauge assessment conducted in October 2006. The Information and Technology Literacy Team identified key areas which are related to District initiatives and are identified by the enGauge assessment as needing improvement. The goals of this plan are to:

**Provide Robust Internet Access**

**Improve Communication with Stakeholders**

**Provide Professional Development to Support Effective Teaching and Learning**

**Develop a Comprehensive, Continuous Professional Development Program**

**Provide Flexible, Ubiquitous Access to Technology**

**Provide Integrated Technology and Information Literacy Instruction**

The Technology Director, working in concert with the Technology Resources Teachers and Library Media Specialists from each school, will continue to provide leadership for our Information and Technology Literacy Programs. We will enhance the learning process for our students by implementing the aligned Wisconsin Information and Technology Standards and expand the involved teacher base.

Given current financial and labor restraints, we replace the oldest technology first and eliminate non-essential and non-standard hardware. Desktop computers are replaced every five years. We are in the fourth year of a five year migration to Windows-based computers as a standard operating system.

Professional development is a key factor in moving away from a teacher-centered classroom and toward student-centered learning. Technology will facilitate a diversified classroom where students choose appropriate resources for inquiry-based, project-based, and problem-based constructivist learning. Professional development has historically been aimed at making educators “technology literate,” that is, able to use specific technology to complete specific tasks. For technology to have lasting positive results on learning, professional development must result in teachers being able to use technology to transform instruction and incorporate 21<sup>st</sup> Century Skills.

The Technology Director implements the plan with the help of the District Information and Technology Literacy Team (ITLT), which meets monthly to review progress and discuss any problems or changes that need to take place. The Board of Education reviews and approves the multi-year plan in concept. The budget for each year follows the normal approval process for all budgets, one year at a time. This provides Board review of the specific goals and budgetary requirements of each year of the plan.

The achievement of the objectives at the classroom level will be monitored using our grade level information and technology checklist completed by the teaching staff and submitted for review at the end of each school year. In the 2006-2007 school year, we piloted an online assessment of technology literacy skills for all eighth grade students, in order to meet new DPI reporting requirements. We plan to continue using the online assessment in the future.

The District will use the enGauge online evaluation tools for on-going evaluations. Data collected from self-evaluations, anecdotal information, and student achievement data will be analyzed each year and used for the modification of our plan implementation. Starting in the spring of 2009 we will renew the long-range planning process, starting with the enGauge evaluation system and culminating with the creation of a new three-year plan.

*This ends the Executive Summary.*

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# Introduction

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## Research

### Analysis and Summary of Relevant Research and Best Practice

The 2007-2010 Oregon School District Technology Plan is built on three principles: School library media programs have a positive impact on academic achievement; The integration of technology into the curriculum has a positive impact on academic achievement; And the best practice for teaching information and technology Literacy (ITL) standards is integration into a curriculum that is built on higher order thinking and rich with problem solving opportunities.

A number of recent studies in states across the country--including the most recent study from the State of Wisconsin--consistently demonstrate successful school library media programs have a positive impact on the academic achievement of learners (Departments of Public Instruction: Alaska, 2000; Pennsylvania, 2000; Minnesota, 2001; Texas, 2001; New Mexico, 2002; Oregon, 2002; Florida, 2003; Michigan, 2003; Missouri, 2003; North Carolina, 2003; Ohio, 2004; Illinois, 2005; Wisconsin, 2006).

In fact, "...Smith [who ran the Texas study] found school libraries to have a measurable effect on student achievement...Library variables outweighed the effects of other school variables, including computers per student, teachers' experience, and even teacher turnover ratio" (ASCD 2003, par. 3). The Department of Public Instruction Study from the State of Wisconsin (2006) indicated schools with strong school libraries programs earned higher scores on the Wisconsin Concepts and Knowledge Exam (WKCE) in both reading and language arts across all tested grade levels (p. 8). In addition, the Wisconsin study, "...demonstrated that library media programs can play a very special role in providing enrichment to those student who come from economically disadvantaged backgrounds and who need additional help to develop the skills that they will need to succeed" (p. 13). Continuing to have a strong library media program will become essential to providing equal learning opportunities for all students, as our district becomes more socially and economically diverse.

Successful school library media programs share common characteristics across all the studies. These include at least one certified Library Media Specialist (L.M.S) or Teacher Librarian, full time support staff, and the L.M.S serves as both a teacher of student and in-service provider. The key role of the L.M.S is expanding access to information technology beyond the library and into the classroom. The roles of an effective L.M.S. include teaching, information access and delivery, program administration, and researcher. Essentially, the Oregon School District Technology Plan concurs with the ideals described in the multiple studies from across the nation; our school libraries play an incredibly important role in academic achievement. Our goals for the 2007-2010 school years rely heavily on the impact a successful school library media program can make and the leadership of highly qualified, certified, full-time Library Media Specialists in each school.

The integration of technology into the curriculum also has a positive impact on academic achievement. Oregon School District has prided itself on providing extremely high quality

technology integration at all levels. In the Oregon School District, high quality instruction is dependent on the highly qualified and certified technology integration specialists at each level. This is reiterated in a national study. The CEO Forum (2001) stated:

When applied to well-defined educational objectives, and integrated into the curriculum by trained teachers, educational technology can produce dramatic results for students that include

- Improved scores on standardized tests
- Increased application and production of knowledge for the real world
- Increased ability for students to manage learning
- Increased ability to promote achievement for special needs students.

To achieve these results, computers and technology can serve many roles. Computers act as tutors, and student can practice and drill important skills. But, computers must also become tools for problem solving and critical thinking. Authors of a study developed by WestEd (2002) explain: “Technology is most powerful when students and teacher take advantage of its sophistication and versatility to support higher-order thinking and conceptualizing” (p. 2). The study goes on to show, “...students using sophisticated technologies as everyday learning tools show marked growth in essential workplace skills. Moreover, such gains do not come at the expense of basic skills” (p. 2). Finally, the study demonstrated, “... increased student motivation, engagement, and self-esteem as well as improved school attendance and fewer dropouts” (p. 3).

Successful educational technology programs share common attributes. They are built on assessment, alignment, accountability, access, and analysis (CEO Forum 2001). The goals set forth in this Technology Plan are focused on achieving these attributes as well as fulfilling the Oregon School District’s vision for technology education.

The best practice for both information and technology literacy instruction is building problem solving tasks that require technology and research into current curriculum. In other words, both technology and information literacy skills are not as well retained when taught as discreet skills. The WestEd (2002) explains, “The overriding message from the most current research on computer-based technology in K-12 education is that technology is a means not an end; a tool for achieving learning goals, not a goal it itself” (p. 1) Serim (2002) concurs: “...information literacy is not a set of individual tasks, or skills, but rather a way of thinking that allows individuals to be the flexible thinkers and lifelong learners who will succeed in the information age” (par. 8). When students retain these skills they know how to use technology as a tool that assists with organization and communication, research and problem solving (Eisenberg & Johnson, 2002).

Teachers can create meaningful information and technology literacy instructional opportunities when the activities, “Directly relate to the content area curriculum and to classroom assignment, and when they are tied together in a logical and systematic information process model” (Eisenberg & Johnson 2002, par. 4). This helps students understand when to apply certain skills and why these skills are important to a task. The systematic information process model that we are currently working with in the Oregon School District is the Big6 created by Eisenberg and

Berkowitz, 1988. The Big6 was cited as an “exemplary practice” by 21<sup>st</sup> Century Literacy Summit (Serim 2002, par. 16). Integration of the Big6 in the Oregon School District at the Oregon Middle School has improved student writing scores on persuasive and informational essays (Anderson, 2004).

When Information and Technology Skills are taught in context, imbedded into the curriculum, and under the collaborative instruction of a technology specialist, information specialist, and classroom teacher an environment of “Digital-Age Literacy” is created. This literacy includes Inventive Thinking, Effective Communication, and High Productivity. These are the 21<sup>st</sup> Century skills that the 21<sup>st</sup> Century Literacy Summit cited as the most critical for 21<sup>st</sup> Century learners entering the workforce (Lemke, 2003). These are the skills we hope to nurture through the implementation of the 2007-2010 Oregon School District Technology Plan.

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## **Mission and Vision**

The Information and Technology Literacy Mission Statement is consistent with the District's overall mission statement:

“The mission of the Oregon School District is to educate the student entire by helping students acquire the skills, knowledge, and attitudes needed to achieve their individual potential, to contribute to a changing society, and to be receptive to learning as a lifelong process. The mission will be accomplished by delivering a high quality program through the joint efforts of students, staff, parents, and community.”

### **Mission**

The mission of the Oregon School District Information and Technology Literacy Program is to integrate information and technology literacy into standards-based curricula that prepares students to become effective communicators, life-long learners, problem-solvers and productive members of their current and future global communities.

(Adopted March 5, 2007)

### **Vision**

All learners, including educators, administrators, support staff, and students, are able to process and manage information through the skillful use of technology. Skillful use of technology supports the development of process skills such as flexibility, adaptability, critical thinking, problem solving and collaboration, which are essential to success in the rapidly changing world of a global community. Technology is a means of empowerment, research, production, and communication for all.

Through the use of technology, learning can take place anywhere and at any time in a school setting, the public library, or at home. This vision has major implications on how, when and where learning takes place. Students increasingly take more responsibility for their own education, with the instructional staff guiding their inquiries and reflecting on their process. Technology is not an end or add on, but provides an environment that facilitates teaching and life-long learning.

Our vision for the community of learners is to increase their achievement and develop life-long learning skills through active engagement with informational and technology resources.

## **Background**

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### **Community/district demographics**

Oregon lies at the center of the school district and is about eight miles south of Madison. The District is a mix of rural farms and urban development. State Government Agencies, the University of Wisconsin, insurance headquarters, technology-based companies, farming, and other usual businesses employ many residents of the district in the Madison area.

The District includes the Village of Oregon, Village of Brooklyn, the southeast portion of the City of Fitchburg and surrounding townships totaling about 85 square miles. The northern boundary joins the Madison School District, bordered on the east by the McFarland and Stoughton School Districts, bordered on the south by Evansville and Belleville School Districts and on the west by the Verona School District.

In the fall of 2006 the District served 3,676 students K-12, with 1198 in the high school, 557 in the 7-8 middle school, 517 in the 5-6 intermediate school, and 1,404 in the three PreK-4 elementary schools.

The Oregon School District is recognized as a leader in the field of education. Exemplary programs in the areas of gifted/talented education, education for employment, library/media services, staff development, and learner-centered instruction are some of the programs which have received national recognition.

Our general curricular offering is comprehensive in scope and includes many special areas, such as foreign languages, driver education, industrial technology, vocal, instrumental and string music, business and marketing education, family and consumer education, as well as strong core academic offerings. An extensive co-curricular and extra-curricular program is also available. The District employs a pupil services staff including school psychologists, guidance personnel, and speech, hearing, physical and occupational therapists. Students with special needs receive instruction from specially-trained teachers, and also have opportunities to participate in regular education classroom instruction.

Active parent and community volunteer groups play an important role in the education of our students. Many other parents and community members serve on planning and advisory committees and others volunteer thousands of hours each year in our schools.

The staff includes 368 certified teachers, 15 administrators, and program directors for special education, transportation, food service, technology, reading, gifted and talented, and several educational assistants. The student population ethnicity is about 93% white and 7% other heritages. The economically disadvantaged student population is about 7%.

### **Overview of the library media and instructional technology programs as they exist today**

In order to insure that all students meet the Wisconsin State Information and Technology Literacy Standards, we have aligned the standards to our K-12 curriculum. An Oregon initiative

started in 2000-01 and completed in 2002-03 links each of the pertinent Wisconsin Model Academic Standards to our K-12 content, integrating information and technology knowledge and skills at every level. This ensures that every student will graduate with the information and technology skills needed to be responsible and productive global citizens. The primary task for our resource teachers is to help classroom teachers with the implementation of this plan.

Adequate staffing is necessary to support teachers in their implementation of the curriculum. The Technology Director oversees the management of technology support, budgets, planning, data services, and standards integration. District support is responsible for all aspects of technology including phones, voice mail, audio/visual, and computer technology from the infrastructure to the desktop.

The six school Library Media Specialists manage library media centers and District needs in a cooperative effort.

District Information and Technology Literacy Team staff provides 29.35 FTE support for schools as follows:

<b>FTE's</b>	<b>Number of Staff</b>	<b>Position</b>
1.0	1	Technology Director
1.0	2	Network Support Technician
1.0	1	Helpdesk Support Technician
0.6	1	Student Management Support Technician
3.0	4	Building Support Technician
6.0	6	Library Media Specialist
1.5	2	Audio/Visual Educational Assistant
6.75	7	Library Educational Assistant
3.0	6	Technology Resource Teacher
<u>5.5</u>	6	Technology Educational Assistant
29.35	Total Support FTE	

All technicians work out of a central office with each school being the responsibility of a specific technician. A web based work order system, a help line (phone), and the ability to remotely fix many technology problems provide timely support to all district students and staff.

The Library Media program helps teachers meet the ITLS by delivering instruction to students on Information Literacy skills. Library Media Specialists are increasing their involvement in, and coordination with, classroom instruction to provide integrated, relevant instruction to students. This is most noticeable in the middle and high schools, where students are learning research skills in the library media programs while they are performing research for the content-area classes.

The Board of Education has policies in place to guide and enforce the appropriate use of technology resources by staff and students. The creation of this plan prompted the review and

subsequent revision of several Board policies, as well as the addition of others, to comply with state and federal mandates, as well as to stay relevant to the changing technology environment. Relevant Board policies are available in Appendix A.

## Writing Team

The Information & Technology Literacy Team Members are the authors of this plan:

- Jon Tanner ..... Technology Director
- Jill Zielinski ..... Oregon High School Technology Resource Teacher
- Pat Fenner ..... Oregon High School Library Media Specialist
- Jeri Shumaker ..... Oregon Middle School Resource Teacher
- Margene Anderson ..... Oregon Middle School Library Media Specialist
- Gunnard Swanson ..... Rome Corners Resource Teacher
- Chris Antonuzzo ..... Rome Corners Library Media Specialist
- Shelly Kadow ..... Netherwood Knoll Elementary School Resource Teacher
- Heather Newton ..... Netherwood Knoll Elementary Library Media Specialist
- Velvet Holmes ..... Brooklyn Elementary and Prairie View Elementary Resource Teacher
- Mark Lee ..... Prairie view Elementary Library Media Specialist
- Linda Daly ..... Brooklyn Elementary Library Media Specialist

Administrators involved in the review and evaluation of the plan:

- Dr. Brian Busler ..... Superintendent of Schools
- Jane Peschel ..... Director of Instruction
- Andrew Weiland ..... Business Manager
- Candace Weidensee ..... Special Education Director
- Chris Ligocki ..... Oregon High School Principal
- Chris Telfer ..... Oregon Middle School Principal
- Jan Bonsett-Veal ..... Rome Corners Intermediate School Principal
- Marilyn Murphy ..... Netherwood Knoll Elementary School Principal
- Cathy Kooistra ..... Prairie View Elementary School Principal
- Anita Koehler ..... Brooklyn Elementary School Principal

Program Directors/Coordinators/Assistants involved in the review and evaluation of the plan:

- Anne Staton ..... Community Education
- Amy Miller ..... Gifted and Talented
- Candace Weidensee ..... Special Education

## Overview of planning process

The rationale for developing a long-range Information and Technology Literacy Plan includes the following:

- Assures the involvement and ownership of all the stakeholders making the use of technology an integral part of the educational process.
- Assures the development of sound educational goals for the use of technology in our learning environment.

- Assures the equitable access to technology in all K-12 Schools.
- Assures procurement of stable funding to insure the continued support of technology over the years.
- Provides the opportunity for an organized, research-based effort to review and evaluate our information and technology programs.
- Provides an instrument for reporting our progress to the stakeholders.
- Provides research based goals for the improvement of the information and technology education.
- Provides long term fiscal planning that is required for the continued support of information and technology education.
- Provides the tools needed to monitor and evaluate progress in achieving our goals.
- Provides the documentation required by DPI and the federal government for grant applications.
- Provides an operational guide for the Technology Director and District Administrators to use in the administration of the programs.

Work on this plan began in September 2006. The DPI enGauge training and CESA 2 Instructional Technology Services meeting on September 20, 2006, provided the necessary planning tools to the District's Information the Technology Literacy Team. Analysis of the previous (2003-2007) plan began in October, which led to the drafting of several new Board policies. Five representatives of the Information the Technology Literacy Team attended the October 9, 2006, Technology Plan Workshop provided by DPI at CESA 2. We established goals and began drafting the plan in October 2006. Our plan is based on the enGauge evaluation process which allowed us to develop research based goals. During October 2006, we collected the input of administrators, site councils, parents, students, Board of Education members and the community. The first draft of the plan was developed in November 2006.

In the spring of 2007 we presented the final plan to the Board of Education for approval and communicated the vision to all stakeholders. This plan will be presented to the Wisconsin Department of Public Instruction for approval in June 2007.

### **Community resources and adult literacy providers**

The School District has a key relationship with the Oregon Public Library, a primary adult literacy provider in the community. The Superintendent is a member of the Public Library Board. Recently several District staff, including Principals, Teachers, Librarians, and the Technology Director, participated in the creation of the Oregon Public Library's strategic plan. Additionally, many business owners and community leaders who are stakeholders in both the Public Library and the School District participated in the visioning process. Various opportunities for collaboration between the Public Library, School District, and other community resources were discussed. The Public Library's strategic five-year plan includes plans to collaborate with the District to provide adult literacy services and technology resources to the community.

The School District actively collaborates with the YMCA and After School Club by sharing resources including classrooms and office space. The District has long supported the Oregon

Youth Center, and is pursuing ways to more actively support both our missions. The District also works with the Oregon Preschool, Chamber of Commerce, and various community groups. The BadgerNet distance education classroom provides interactive access to worldwide resources for 9-12 classes daily and K-8 classes by special arrangements. It also connects the district staff to resources in the state community through special video conferencing events.

## Current Status & Needs

### Analysis of previous plan goals

The previous technology plan had eight goals. The table below states each goal, its current status, an explanation of the status, and the next steps to be taken.

2003-2007 Goal	Status	Explanation	Next steps
1. "The Information and Technology Literacy Team will actively encourage the stakeholders (students, teachers, administration, and community members) to discuss the purpose of public education in light of new technology. We would like the stakeholders to embrace the vision that a public education uses technology to meet the needs of learners—flexing the traditions of time, curriculum and place but still holding fast to the time and place constraints of the traditional system. We would like the Oregon School District to "buy into" our Information and Technology Literacy Long-range Plan."	Ongoing, and needs improvement	EnGauge survey indicates that although staff is "buying in" to the plan, communication about the vision of the technology plan is lacking.	Improve communication plan
2. "We will study and implement systems to provide the fullest access for all users including schools and the community to library and technology resources. Teachers will have the technology available and will need to fully implement the Technology Integration Plan."	Done.	Systems are in place to provide as much equitable access as possible.	Continue the regular maintenance and replacement plan.
3. "Teachers will work with instructional strategies for developing information and technology skills. Teachers will begin to create open-ended, problem-solving lesson plans that widen student-learning options."	Teachers have begun to create such lesson plans.	This is an ongoing professional development process, and generalities about the teaching staff are difficult to quantify.	Develop and implement professional development programs which specifically address creating such lesson plans.
4. "We need to ensure that each student meets the Wisconsin Information and Technology Standards by the end of 12 <sup>th</sup> grade.  Our teachers will move from didactic instruction to new implementation strategies that are more active and student-centered."	Students do meet WI ITS by the end of 12 <sup>th</sup> grade due to strategic inclusion in curriculum.  Many teachers are moving toward active, student-centered instruction.	Technology Resource Teachers insure that all students learn the WI Information and Technology Standards.  Many teachers require more training, support, and motivation to implement such strategies.	Continue meeting standards by 12 <sup>th</sup> grade.  Deliver professional development programs to support teachers in delivering such instruction.
5. "The Oregon School District's Information and Technology Literacy Program will promote information literacy through appropriate staffing, effective library and technology leadership for successful collaborative efforts, and a current collection	Done.	Each school has 1.0 FTE Library Media Specialist and .5 FTE Technology Resource Teacher. District has 1.0 FTE Technology	Revise Library Media Specialist staffing to enable cooperative teaching of Information

consisting of print, non-print, and electronic resources which will address cultural diversity and the pluralistic nature of our society.”		Director. Library collections are regularly updated to meet stated goals.	Literacy Skills in the classroom.
6. “We must find financially creative ways to keep hardware, software, and the infrastructure up to acceptable standards.”	Ongoing, predictable funding to maintain status quo is part of long-range planning.	Funding is planned and predictable for cyclical replacement of most infrastructure. However, new technologies to support instruction require additional funding or re-prioritization.	Prioritize capital equipment needs; explore alternative funding sources; reconsider the status quo.
7. “Have current information and technology-based skills seamlessly integrated with curriculum at all grade levels.”	In progress.	This is being done on an ad-hoc basis.	Administratively support inclusion of LMS teachers into curriculum development and classroom instruction.
8. “Our goal is to begin to use substantial student achievement data collection and quantitative data for the decision making processes in the district. Curriculum and instruction decisions will be made by nationally researched, best practices, quantitative data, and anecdotal evidence.”	Delayed due to technical systems being inadequate for the data analysis needed.	Data was not able to be easily retrieved or disaggregated from the SIS.	Implement a data warehouse application to store and analyze assessment data.

### **Analysis of Student Proficiency**

The enGauge survey was used in 2002 and again in the fall of 2006 to analyze the proficiency of students in the District. Each school annually completes a Technology Literacy Checklist to record which ITLS skills have been completed by each student. These are aggregated by school to show overall progress and to identify any skills that are not being met.

Portfolios of student work, anecdotal evidence, and Technology Literacy Checklists demonstrate that students understand the ITLS skills. Students use media and technology as tools to improve their learning. Use of these tools is integrated into the curriculum at the discretion of the teacher. As teachers become more proficient in the use of technology, the integration of technology into their instruction increases.

As evidenced by the enGauge survey data, there is a high degree of equitable access to technology resources in the Oregon School District. Students from different socioeconomic backgrounds have the same access. Students with special needs have equitable access to technology. This includes formally identified special education students and students with special needs that are not formally identified through special education. Technology is frequently used by the special education teachers to provide assistive technology to special education students.

### **Analysis of Educator Proficiency**

The enGauge survey was used in 2002 and again in the fall of 2006 to analyze the proficiency of educators in the District. Additionally, the Library Media Specialists and Technology Resource Teachers working in each building have anecdotal evidence of educator proficiency based on their experiences working with educators.

The 2006 enGauge survey results indicate that **Educator Proficiency is at the Exploration Level**, with a mean score of 3.31. Readers not familiar with the enGauge indicators may wish to refer to the Appendix or to the enGauge web site (<http://www.ncrel.org/engauge/>) to provide context for the scores in the following paragraphs. Each paragraph summarizes one indicator of Educator Proficiency.

### **Educator Proficiency- Cultivation of Digital-Age Skills and Processes**

The enGauge results indicate that educators are at the Exploration level, with a mean score of 3.29. This level is described as: *“Educators begin to experiment with instructional strategies for developing digital-age skills. In most cases, these efforts are confined to specific units of instruction, often directly attached to professional development experience. Educators do not have a generalizable set of skills that can be applied in different content areas.”*

### **Educator Proficiency- Planning and Design**

The enGauge results indicate that educators are at the Exploration level, with a mean score of 3.14. Educator proficiency at this level is described as: *“Experiences with technology-based learning cause educators to experiment with new models of planning and design. They may be more open, for example, to individualization as a design option in part because of the support for individualization that technology can provide. With each of these models, educators begin to build an understanding of the research base that supports the use of technology and apply that knowledge under some conditions. They begin to experiment with and use new classroom-management strategies that support technology use. Educators also begin to include strategies for accommodating special-needs students in learning plans.”*

### **Educator Proficiency- Implementing Technology-Supported Learning**

The enGauge results indicate that educators are at the Exploration level with a mean score of 3.41. Educator proficiency at this level is described as: *“Educators are comfortable with technology in the classroom and begin to experiment with new implementation strategies that might be considered more active or constructivist. These new practices may be implemented only in selected units or lessons and may be related to specific professional development activities. Educators have a greater variety of management strategies available and are more comfortable using technology to improve learning for special needs students.”*

### **Educator Proficiency- Assessment Literacy**

The enGauge results indicate that educators are at the Adoption level with a mean score of 2.96. Educator proficiency at this level is described as: *“Educators at this level may use technology to automate existing assessment practices. One of the most common examples of this automation is the use of grade-book programs in lieu of paper grade books. Educators may have difficulty developing assessment strategies for evaluating student products when technology is involved or when the products result from more collaborative, active learning that technology often engenders.”*

### **Educator Proficiency- Professional Practice and Productivity**

The enGauge results indicate that educators are at the Exploration level with a mean score of 3.65. Educator proficiency at this level is described as: *“Educators use technology on a daily basis, and it is beginning to change the ways in which educators learn and communicate. Increasingly, educators participate in decision making regarding the selection and deployment of classroom technologies.”*

### **Educator Proficiency- Social, Ethical, and Legal Issues**

The enGauge results indicate that educators are at the Exploration level with a mean score of 3.43. Educator proficiency at this level is described as: *“Many educators are sufficiently experienced with technology and aware of its social, ethical, and legal implications to guide students in this area. Most have strategies for guiding students to self-regulation and awareness of social and ethical issues. Schools have clear policies and training for helping educators in this area.”*

### **Anecdotal Findings**

While the enGauge survey results appear positive, it should be noted that only thirty-four educators responded to the survey. The experiences of Library Media Specialists and Technology Resource Teachers indicate **vast differences in proficiency of different individual educators**. It is surmised that the high scores on the enGauge survey are due to teachers with higher levels of technology proficiency being more likely to complete an online survey than teachers with lower levels of proficiency.

Library Media Specialists and Technology Resource Teachers have anecdotal evidence that the vast differences in proficiency among various educators make it impossible to characterize the general proficiency of the staff as a whole. One way to promote uniformity of educator proficiency is to **implement a comprehensive, mandatory professional development program focused on Information and Technology Literacy**.

### **Analysis of Effective Teaching and Learning Practices**

Results of the 2006 enGauge survey were used to analyze the effective teaching and learning practices in the District. Engaging learning environments do not necessarily rely on technology, but effective use of technology will result in an effective learning environment. Seven traits which distinguish an engaging learning environment from a traditional learning environment were identified by Barbara Means (Means et al., 1993). A comparison of the traits is shown in the following table.

	<b>Engaging Learning Environments</b>	<b>Traditional Learning Environments</b>
1.	Students are engaged in authentic and multidisciplinary tasks.	Students are "blank slates" onto which teachers etch information.
2.	Student participation is interactive.	Students sit passively and absorb information.
3.	Student work is collaborative.	Students work alone.

4.	Students are grouped heterogeneously.	Students are grouped homogenously.
5.	Students learn through exploration.	Students learn based on strict adherence to a fixed curriculum.
6.	The teacher is a facilitator.	The teacher "imparts" specific knowledge to students.
7.	Assessment is based on students' performances of real tasks.	Assessment means testing which is separate from teaching.

The enGauge results indicate that the district is at the **Exploration level of Effective Teaching and Learning**, with a mean score of 3.03.

Each following paragraph summarizes the district's score on one indicator of Effective Teaching and Learning Practices.

**Effective Teaching and Learning Practices- Learning Environment**

The enGauge results indicate that educators are at the Exploration level with a mean score of 3.15. The learning environment at this level is described as: *“At this level, technology has supported a significant change in the learning environment. Students are increasingly engaged and motivated as teachers begin to experiment with new models of teaching and learning. Collaborative learning is used with increasing frequency. Student grouping patterns are flexible within grade levels, and groups are more often determined by interest and specific learning needs than by a predetermination of ability level. The teacher is more often acting as a designer of the learning environment and a facilitator of student learning within that environment. Assessment is increasingly viewed as a formative activity, providing students with feedback and redirecting their efforts.”*

**Effective Teaching and Learning Practices- Sound Base in Research and Best Practices**

The enGauge results indicate that learning practices are at the border between the Adoption and Exploration levels, with a mean score of 3.00. Teaching and learning practices at the Adoption level are described as: *“Schools at this level are typically formulaic in adopting new technologies that support instruction. No process is in place whereby teachers can have a voice in making sure educational technology is consistent with curriculum topics and content. Educators may be aware of innovative practice through conferences and professional resources, but they do not have access to the peer support and networking that are necessary to implement these practices.”*

Teaching and learning practices at the Exploration level are described as: *“Schools at this level typically support new practice and have mechanisms through which educators have some access to research and best practices. The school and its district have created a careful review process that is used to select technology for classroom use. This process, however, may also lack a mechanism for piloting solutions and gathering data to support solutions in the context of the local school and district. Individual educators and/or teams of educators may have initiated review processes for technology use that give consideration to research and best practices. The school is usually supportive of such efforts. Processes for assessing the effectiveness of teaching and learning strategies may be used on a limited basis for specific initiatives.”*

### **Effective Teaching and Learning Practices- Alignment to the Vision**

The enGauge results indicate that teaching and learning practices are at the Exploration level with a mean score of 3.79. Teaching and learning practices at this level are described as:

*“Standards are present, and technology and digital-age skills are referenced in some fashion, though often as a separate set of standards. Assessments are usually aligned to the standards. Technology is used in some assessment processes, particularly in less formal classroom assessments, and the school is beginning to include thinking, reasoning, and life and workplace skills. Instructional strategies are usually aligned with standards, and there is a formal process that has been developed for ensuring alignment. Technology has been included as a design factor within the alignment and review processes, and most educators honor those processes.”*

### **Effective Teaching and Learning Practices- Relevance**

The enGauge results indicate that teaching and learning practices are at the Exploration level with a mean score of 3.12. Teaching and learning practices at this level are described as:

*“Technology is firmly embedded in the instructional program. Training in alternative instructional strategies supported by technology is readily available. Many staff members are using new strategies, such as problem-based or project-based learning supported by technology. Use of computers for skills training is on the wane as technology resources are dedicated increasingly to more professional applications. Formal mechanisms are being established to link classrooms with outside expertise and resources on a regular basis.”*

### **Effective Teaching and Learning Practices- Range of Use**

The enGauge results indicate that teaching and learning practices are at the Exploration level with a mean score of 3.24. Teaching and learning practices at this level are described as:

*“Technology is firmly embedded in the instructional program. Educators throughout the system have several key applications of technology that have gained prominence in their classrooms and may be investigating others. While there is inconsistency as different teachers begin to use technology for different purposes, successful applications are beginning to rise to the fore.”*

## **Access to Information Resources and Learning Tools**

The Information and Technology Literacy Team annually reviews the current deployment of information resources and learning tools, identifies students’ current and future needs, analyzes the district’s ability to meet those needs with the current resources, and plans for improvement.

The following is a summary of the analysis performed during the 2006-2007 school year.

### **District**

Total number of Internet-connected computers: 1,406

Total number of Internet-connected computers for instructional use: 1,237

Percentage of classrooms with dedicated (non dial-up) Internet access: 100%

Percentage of classrooms with telephone access: 100%

Each school has a library with computers available for student use, as well as computer labs for keyboarding instruction, computer skills instruction, Internet safety instruction, and for teachers to reserve for class use. Computers are available for cooperative student use in each library and computer lab.

Wireless networks and wireless-enable notebook computers are present in the Middle School and Rome Corners Intermediate. Standalone wireless access points are being replaced with enterprise-class, managed wireless access points to improve performance and reliability. **Areas with wireless have the capability to dynamically alter computing environments to allow students to work cooperatively.** Ongoing, targeted professional development is propelling the use of computers for real-world tasks.

A wide variety of software is available to meet the specific needs of students based on age, developmental level, learning standards, and special needs. Each building can purchase software which fits the needs of their own students.

Special education students and teachers are provided with information and computing resources specific to their needs. Funding comes from EEN budgets. IEPs are created and managed using E-Sped, a web-based service that is hosted by third party. While this allows staff to access information from any location, it also requires dedicated Internet bandwidth, which is guaranteed by an arrangement between the Special Education and Information Technology Departments.

Administrative software is available securely to stakeholders. Financial management information is available in Lawson, which is hosted by an ASP. While this reduces the burden of performing daily backups of data, it also **increases the traffic on the district's Internet connection, and increases the importance of fast, reliable Internet access.**

Student information is available to all stakeholders, including students, parents/guardians, teachers, and administrators, through PowerSchool. This web-based information system provides parents with real-time grade and outcome reports, school lunch balances, attendance records, and schedule information. Staff have secure, role-determined access to student demographic data, medical information, disciplinary logs, and guardian contact information.

**Each school library has an online media catalog and circulation system** which accesses a centralized district database. All functions are web-based, allowing students, staff, parents, and community members to browse and access the libraries' resources from any location. Additionally, each library provides access to various free and subscription-based resources such as WorldBook online. Each school has a subscription to United Streaming, which provides educationally appropriate, standards-linked, on-demand multimedia presentations to every classroom via the Internet.

LCD projectors are being installed in targeted classrooms using a combination of district and building funds. These projectors enhance the use of technology as a presentation tool and also provide a delivery system for United Streaming videos.

Parents and community members receive communication from the District via email, telephone, and publications on the district website. A directory of staff phone numbers and email address is published on the district website to allow parents to easily contact staff. Each staff member has an individual voice mailbox where parents can leave messages.

The Oregon High School has a distance education classroom which allows students to participate in live, real-time classes with students and teachers in geographically distant locations. Students take classes that are not offered onsite. Due to high demand, classes are scheduled in this room nearly every available hour.

The District uses several web-based distance education providers to meet the special needs of individual students. Decisions about web-based classes are made on an individual basis, according to each student's particular situation.

The District utilizes Novell Netware to provide all students and staff access to their email, bookmarks, applications, and documents on any computer in the district. All users have a network profile which stores their individual settings and applies them to whatever computer the user logs in to. Each user also has a home directory on a centrally-located file server in which to store their work. Using network-based logins, this directory is available to the user on any computer in the district. All users with email can access it from on campus using the Novell client, and also from any web-enabled device anywhere in the world using GroupWise Web Access. Novell Application Launcher makes a user's programs available to them even if the programs are not installed on the computer they are sitting at. In this way, we provide full access to all the information resources and learning tools needed by all students and staff, regardless of where they are on campus as they work and learn.

## **Analysis of Systems Support and Leadership**

The Oregon School District currently employs the following:

- One full-time Technology Director
- Five full-time Technicians
- One part time (.6 FTE) Database/PowerSchool specialist
- Six full-time Library Media Specialists
- The equivalent of three full-time Technology Resource Teachers

Additional technical services are purchased from third parties when specialized support is necessary. The Technology Director is a member of district planning groups such as the Curriculum Coordinating Council. The Director of Technology serves as an interface between the instructional and technical functions of the district, so that the ITLT and Technical Support staff cooperate to support the mission of the District.

Principals of each school use technology to analyze data from various assessments including WKCE, MAP, and School Climate Surveys. Advanced spreadsheet applications are used to disaggregate data, chart trends, and perform statistical analysis. The Director of Instruction works with Subject Area Committees, grade level teams, building teams, and the Administrative

Team to perform “data retreats” in which technology plays a vital role in analyzing data to improve student achievement.

Policies and procedures are updated regularly to address technological changes and identified needs. Policies are identified and revised by the ITLT, then submitted to the Board of Education’s Policy Committee for review and eventual approval.

Oregon School District has long used outcomes to structure its curriculum. The Wisconsin ITL standards were used to create the district technology outcomes. Once students are in high school, there is no longer a single class that all students must take, and therefore no class in which the outcomes could be included that is guaranteed to reach all students. Therefore, the District includes all state ITL standards within the K-8 district outcomes to insure that all students receive instruction in the standards.

All eighth grade students are assessed annually to insure they meet the Wisconsin ITL standards and district technology outcomes. Prior to the 2006-2007 year, this assessment was anecdotal in nature, and was performed by individual teachers. The Technology Resource Teacher at the Middle School compiled the assessment reports. During the 2006-2007 school year, the District is using the Learning Point Associates online assessment to measure eighth graders’ technology achievement. These results will be reported to DPI in the summer of 2007. It is anticipated that this test will provide more useful information about student achievement. The price of this assessment was free to the district this year. In future years, it may not be free. A decision will have to be made to determine if the results are worth the cost.

The network is built on Cisco managed switches with 100BaseT connections to the desktop and gigabit fiber links to each building. The network hardware is in the second year of a five-part replacement project. The vast majority of network hardware was purchased in 2001 and had reached the end of its five year life cycle. During the summer of 2006, the core network switch hardware was replaced, along with the main switch hardware at Oregon Middle School and Brooklyn Elementary School. That replacement resulted in improved reliability for those schools. The next phase of network replacement is targeted at provided redundant links to each school, and to replace edge switches which are experiencing a high load.

Desktop computers in the district are on a five year replacement cycle. In the summer of 2007, Brooklyn Elementary will have its Mac OS computers replaced with Windows PCs, completing a five-year migration to a single platform. A few Mac OS computers will still be used in niches where they are the best fit for specific needs. Approximately one-fifth of the total desktop inventory is replaced each summer to maintain a consistent workload.

## Goals

Provide Robust Internet Access

Improve Communication with Stakeholders

Provide Professional Development to Support Effective Teaching and Learning

Develop a Comprehensive, Continuous Professional Development Program

Provide Flexible, Ubiquitous Access to Technology

Provide Integrated Technology and Information Literacy Instruction

## Implementation Action Plans

### 1. Action Plan: Provide Robust Internet Access

<b>Need Statement</b>	Bandwidth usage reports and user support tickets indicate that instructional resources (United Streaming, Google Earth, web resources), communication tools (district web site for parents, PowerSchool) and management systems (Finance, HR, and online IEPs) are frequently not available due to insufficient bandwidth.
<b>Goal</b>	<b>Goal 1:</b> IT will provide sufficient available bandwidth to accommodate the increased amount of traffic needed for online content delivery systems, web-based communication tools, and management systems.
<b>Objective(s)</b>	<b>Objective A:</b> Available bandwidth will reach 90% saturation less than 5% of regular school hours, as indicated by longitudinal bandwidth usage graphs.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
1. A.1 Purchase 5Mbps additional bandwidth service on the district's existing DS3 circuit which is not being fully utilized.	IT Department	June 2007- August 2007	Increased bandwidth: \$250/month From Tech Access and TEACH funding (via DOA)	Bandwidth utilization and efficiency graphs and reports
1. A.2 Procure router hardware which is capable of aggregating two separate Internet connections.	Technology Director	June 2007-July 2007	Router: \$2500 IT hardware replacement budget	Implementation
1. A.3 Provide training to IT staff on the best use of Packeteer appliance.	Technology Director	June 2007- December 2007	\$1000 IT Training budget	Staff successfully completes training.
1. A.4 Implement web-caching proxy to reduce unnecessary Internet traffic	IT Department	Feb 2008- September 2008	Proxy server: \$2000 IT hardware acquisition budget	Logs show data transferred from cache instead of Internet.

1. A.5 Annually evaluate current bandwidth usage and projected future needs, resulting in purchase of additional bandwidth to meet the objectives.	Technology Director	June 2008-June 2010	Salaries	Annual report.
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<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	None.
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## 2. Action Plan: Improve Communication with Stakeholders

<b>Need Statement</b>	The results of the enGauge survey as well as anecdotal evidence indicate that communication with students, parents, and the community needs to be improved. This is especially true regarding communication about the Information and Technology Literacy program.
<b>Goal</b>	<b>Goal 2:</b> Students, staff, parents, and the community will receive regular communication about the vision, mission, purpose, and activities of the Oregon School District's Information and Technology Literacy program.
<b>Objective(s)</b>	<b>Objective A:</b> Parents will receive regular communication about the vision and mission of the Technology Literacy Program, and the related activities in which their child may be involved.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
2. A.1 Publish the ITL vision and mission in each school's regular newsletter.	Principals Tech Resource Teachers LMS Teachers	September 2007- June 2010	none	Inclusion in newsletter
2. A.2 Establish an informational web site geared toward parents with information specifically about the ITL program.	Technology Director	August 2007- September 2007	none	Presence on the web site
2. A.3 Provide informational seminars and workshops for parents on topics related to technology and children.	Technology Director LMS Teachers Tech Resource Teachers	November 2007- June 2010	\$1,000 annually. Teacher as Teacher pay; grants.	Completion of two parent workshops annually at each school.

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	None.
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<b>Goal</b>	<b>Goal 2:</b> Students, staff, parents, and the community will receive regular communication about the vision, mission, purpose, and activities of the Oregon School District's Information and Technology Literacy program.
<b>Objective(s)</b>	<b>Objective B:</b> Parents will be able to communicate their needs to the school district regarding the Information and Technology Literacy program.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
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2. B.1 Establish an electronic "comments box" to allow parents to submit questions to the ITL team.	Technology Director LMS Teachers	September 2007- October 2007	none	Comments being received from parents.
2. B.2 Hold interactive sessions where parents can ask questions of ITL team members.	ITLT	October 2007- June 2010	\$1,000 annually. Teacher as teacher pay.	Attendance at these meetings.

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	None.
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<b>Goal</b>	<b>Goal 2:</b> Students, staff, parents, and the community will receive regular communication about the vision, mission, purpose, and activities of the Oregon School District's Information and Technology Literacy program.
<b>Objective(s)</b>	<b>Objective C:</b> The public will be aware of the ITL vision and its relevance to the mission of the District.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
2. C.1 Publish the ITL vision and mission in the local newspaper.	Technology Director Community Outreach Coordinator	September 2007, and annually thereafter	none	Inclusion in newspaper
2. C.2 Publish the District's vision and mission, and the ITL vision, mission, examples, and products on a professional-looking public website	Technology Director	June 2007- September 2007	\$2400 annually for web hosting and content management system (to be shared with other uses)	Anecdotal feedback from community members

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	Policy on publication of student work on a public web site. Web page design policy.
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<b>Goal</b>	<b>Goal 2:</b> Students, staff, parents, and the community will receive regular communication about the vision, mission, purpose, and activities of the Oregon School District's Information and Technology Literacy program.
<b>Objective(s)</b>	<b>Objective D:</b> Provide telephone and voicemail access to every staff member to enable timely communication with parents, other staff, and community members.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure &	Success Indicators
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			<b>Source</b>	
2. D.1 Replace the District's obsolete voicemail system	Technology Director	October 2009 – May 2010	\$20,000 Capital budget	Implementation
2. D.2 Upgrade existing PBX phone system to allow expansion	Technology Director	July 2008 – June 2009	\$40,000 Capital budget + \$15,000 annually Tech operations	Implementation
2. D.3 Implement E911 to provide crucial location information in case of emergency	Technology Director	July 2007 – February 2008	\$5,000 Operations budget	Calls to 911 show room # and relevant directions, as evaluated by fire and police.

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	None.
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### 3. Action Plan: Provide Professional Development to Support Effective Teaching and Learning

<b>Need Statement</b>	enGauge survey results, observations, teacher self-reports, and anecdotal information indicate that technology and information literacy skills are not effectively integrated into curricula or the instructional process, thus reducing the effectiveness of instruction in preparing students for an information-based society.
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<b>Goal</b>	<b>Goal 3:</b> Staff who are already proficient with technology use will be offered targeted professional development opportunities to increase their teaching effectiveness through the use of technology, thereby serving as a model for others.
<b>Objective(s)</b>	<b>Objective A:</b> The ITL team will provide inservice training to all staff regarding the use of technology tools in their professional environment.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
3. A.1 Develop curricula related to available technologies	ITL Team	June 2007- August 2007	\$500, Curriculum Development	Curricula delivery
3. A.2 Schedule training sessions on inservice days and other available times	Tech Resource Teachers Curriculum Director	August 2007	None	Sessions are on calendar.
3. A.3 Deliver training to staff.	ITL Team	October 2007 – June 2008	None	Increase in the number of staff identified as “proficient” in technology.

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	None.
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<b>Goal</b>	<b>Goal 3:</b> Staff who are already proficient with technology use will be offered targeted professional development opportunities to increase their teaching effectiveness through the use of technology, thereby serving as a model for others.
<b>Objective(s)</b>	<b>Objective B:</b> Provide a graduate-level professional development course which focuses on providing “engaged learning” experiences using technology. Course will run over a semester to allow participants to apply what they learn in their classroom, reflect on their practice, collaborate with peers, and refine their methods.

Activities or Resources	Person /Team	Timeline	Budget:	Success
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	<b>Responsible</b>	<b>Start --- Finish</b>	<b>Expenditure &amp; Source</b>	<b>Indicators</b>
3. B.1 Develop course curriculum.	Technology Director, Technology Resource Teachers	June 2007- July 2007	\$500, Title II grant	Curriculum is developed and published.
3. B. 2 Implement the course	Technology Director, Technology Resource Teachers ,Director of Instruction	August 2007- December 2007 (and repeating annually)	\$5,000, Title II grant \$15,000, Technology Capital Budget	Participants score higher on the NCREL Profile Tool assessment after taking course.

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	None.
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#### 4. Action Plan: Develop a Comprehensive, Continuous Professional Development Program

<b>Need Statement</b>	There does not exist a mandatory, comprehensive, coordinated professional development plan for educators to improve their Information and Technology Literacy knowledge and skills.
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<b>Goal</b>	<b>Goal 4:</b> Curricula and instructional plans will contain information and technology literacy components as an integral part of student learning.
<b>Objective(s)</b>	<b>Objective A:</b> The District will develop a professional development program which insures that all staff continuously improve their Information and Technology Literacy knowledge and skills.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
4. A.1. Develop a model of technology use and instructional integration which identifies desired competencies	ITLT	September 2007- June 2008	None	Approval of model by administrative team
4. A. 2. Include technology professional development in the District's strategic professional development plan	ITLT, Director of Instruction	September 2007- June 2008	None	District's strategic professional development plan includes required technology component.
4. A.3 Define a continuum of technology use. Develop a way for staff to identify where they are on the continuum.	ITLT	September 2008- January 2009	None	Publication of continuum and assessment tool.
4. A. 4. Develop catalog of regular, ongoing, coordinated professional development experiences.	ITLT, Director of Instruction	January 2008 – December 2008	None	Publication of catalog of experiences.
4. A. 5. Revise job description of Technology Resource Teachers to reflect the priority of providing professional development.	ITLT, Principals	January 2008- May 2008	None	Approval of revised job descriptions.
4. A. 6. Provide professional development experiences.	ITLT	August 2009- May 2010	Professional development budget; IT budget	Attendance at events.

4. A. 7. Every educator has a mandatory Information and Technology Literacy professional development goal.	Principals	January 2009 – May 2009	None	Inclusion of goal in annual review.
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<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	Teacher observation policies. Collective bargaining agreements.
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## 5. Action Plan: Provide Flexible, Ubiquitous Access to Technology

<b>Need Statement</b>	Teachers report that limited access to technology inhibits their ability to use it in their instructional environment.
<b>Goal</b>	<b>Goal 5:</b> IT will provide technology in environments that are easily accessible, configurable, and flexible, to meet a variety of instructional needs.
<b>Objective(s)</b>	<b>Objective A:</b> IT will provide wireless LANs to allow flexible deployment of technology, resulting in timely, ubiquitous access in dynamic learning environments.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
5. A.1. Purchase Wireless Access Points to provide optimal wireless performance.	IT Department	August 2008- August 2009	\$8,000 Technology Capital Expenditure	80% building coverage, or 100% targeted area coverage
5. A. 2. Purchase Wireless Access Point Controller to manage phase 2 wireless implementations	IT Department	January 2009	\$15,000 Technology Capital Expenditure	Zero incidents of WAP interference
5. A. 3. Replace edge network switches reaching their end of life in a phased replacement plan	IT Department	July 2007 - August 2009	\$100,000 total, Technology cyclical hardware replacement budget	All network components are supported by manufacturer

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	Policy on Use of Electronic Devices in Schools.
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<b>Goal</b>	<b>Goal 5:</b> IT will provide technology in environments that are easily accessible, configurable, and flexible, to meet a variety of instructional needs.
<b>Objective(s)</b>	<b>Objective B:</b> IT will implement a regular equipment maintenance and replacement cycle to insure that all information technology systems are capable of support administrative and instructional needs of the District.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
5. B.1. Replace one-fifth of computers annually	IT Department	Summer of each year	\$180,000, Technology hardware replacement	Instructional computers are no more than five years old
5. B. 2. Replace servers and network devices according to need	IT Department	Annually	\$32,000 - \$56,000, Technology hardware replacement	Server and/or network performance are not found to

				be causes of poor performance
5. B. 3 Upgrade operating systems and productivity software	IT Department	June 2008-August 2008	\$125,000, Technology software budget	Windows XP has been replaced on 40% of total computers by August 2008.

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	Policy on Use of Electronic Devices in Schools.
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## 6. Action Plan: Provide Integrated Technology and Information Literacy Instruction

<b>Need Statement</b>	enGauge survey results, observations, teacher self-reports, and anecdotal information indicate that technology and information literacy skills are not effectively integrated into curricula or the instructional process, thus reducing the effectiveness of instruction in preparing students for an information-based society.
<b>Goal</b>	<b>Goal 6:</b> Library Media Specialists will teach information and technology literacy within the context of the classroom. Students will demonstrate high levels of information and technology literacy as a result of curricula.
<b>Objective(s)</b>	<b>Objective A:</b> Library Media Specialists and Technology Resource Teachers will participate in curriculum and instructional process development.

Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
6. A.1 Include Library Media Specialist and Technology Resource Teachers on Subject Area Committees	Director of Instruction	July 2007- June 2010	\$1000 annually, Curriculum Development	Presence of integrated ITL outcomes
6. A. 2 Create a curriculum development procedure which requires incorporation of ITL standards by a Library Media Specialist and/or Technology Resource teacher	Director of Instruction, CCC	September 2007- August 2008	Salaries	Identifiable ITL standards in grade-level and subject-area curriculum proposals submitted to CCC
6. A. 3 Adopt standard, district-wide curricula for information literacy, which includes reading, writing, research, and communication.	Director of Instruction	July 2007 – June 2010	\$1000 Curriculum Development	Students learn a standard method of writing, research, and information literacy.

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	Curriculum adoption process
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<b>Goal</b>	<b>Goal 6:</b> Library Media Specialists will teach information and technology literacy within the context of the classroom. Students will demonstrate high levels of information and technology literacy as a result of curricula.
<b>Objective(s)</b>	<b>Objective B:</b> Library Media Specialists will teach information and technology literacy concepts and skills in cooperation with the classroom or subject area teacher, in the context of subject area learning. LMS Teachers and Technology Resource Teachers will

	team-teach ITL skills “just in time” to meet relevant needs.
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Activities or Resources	Person /Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
6. B.1 Revise the job description of the Library Media Specialist to reflect the priority of contextual Information and Technology Literacy instruction.	ITLT, Director of Instruction	September 2007- June 2008	None	Approval of revised job descriptions
6. B. 2 Perform a functional analysis of Library Media Services and Educational Assistants.	Director of Instruction, Technology Director, ITLT	September 2008- June 2009	None	Functional analysis is published
6. B. 3 Adjust schedules and current resource allocation to maximize the time Library Media Specialists spend co-teaching Information Literacy Skills in a classroom context.	Director of Instruction, Administrative Team, ITLT	September 2009- June 2010	To be determined by functional analysis.	Librarians teach ITIL average of 3 or more classes daily.

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	Job descriptions for Library Media Specialists and Educational Assistants; evaluation procedures.
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## 7. Action Plan: Continue On-Going Collection Development of District Library Holdings

<b>Need Statement</b>	Ongoing collection development is vital to the success and viability of the library media program in any school. Students and staff need current and appropriate materials related to learning and achievement in order to meet local, state, and national standards.
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<b>Goal</b>	<b>Goal 7:</b> Library Media Specialists will participate in ongoing collection development by analyzing their collections, choosing appropriate and current resources that meet student and staff needs, and aligning resources with content area subjects and standards.
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<b>Objective(s)</b>	<b>Objective A:</b> Each LMS will determine areas for focusing their collection development efforts. They will examine their current holdings and resources and determine what needs to be replaced, added, or enhanced to meet the needs of their library's patrons.
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Activities or Resources	Person/Team Responsible	Timeline Start --- Finish	Budget: Expenditure & Source	Success Indicators
7.A.1 Analyze current collections in each district library to determine holdings age and breadth of content.	District LMSs	June 2007-October 2007	None	Collection analysis reports
7.A.2 Determine areas of need in each collection based on building, grade level, course, and content area curricular outcomes, goals, and standards.	District LMSs	October 2007-June 2008 (and into subsequent years of this plan)	None	List of areas to focus collection development on for each year of this plan.
7.A.3 Purchase/acquire materials that meet the needs of each building library as determined by the building LMS using the district policies and procedures and in conjunction with professional standards for collection development and material selection.	District LMSs	October 2007-June 2008 (and into subsequent years of this plan)	\$114,479 total District Library budgets  \$108,503 Common School Funds, remainder from District/ Building allocated funds	Decrease in the age of each library collection. Increase in numbers of materials meeting patron needs.

<b>Relevant Policies to Review that may have impact on Goals, Objectives, and/or Activities</b>	District Policies: 1.07 Purposes of an Educational Materials Selection Policy, 342 Inter Library Loan Policy
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# Budget Summary

	2007-2008	2008-2009	2009-2010
<b>Software procurement</b>			
Windows versions of software for Brooklyn Elem.	\$ 12,000.00	\$ -	\$ -
Operating system upgrades		\$ 25,000.00	\$ 15,000.00
Operational software	\$ 10,000.00	\$ 70,000.00	\$ 5,000.00
Instructional software	\$ 2,000.00	\$ 4,000.00	\$ 4,000.00
<b>Hardware, Facilities &amp; Networking Acquisition &amp; Implementation</b>			
Replace 20% of workstations annually	\$ 180,000.00	\$ 210,000.00	\$ 210,000.00
Wireless implementation	\$ 30,000.00	\$ 15,000.00	\$ 15,000.00
Network infrastructure replacement	\$ 20,000.00	\$ 50,000.00	\$ 30,000.00
Server replacement	\$ 12,000.00	\$ 6,000.00	\$ 18,000.00
<b>Operations, Maintenance, &amp; Upgrade</b>			
Internet access	\$ 8,000.00	\$ 10,000.00	\$ 12,000.00
Telecom access	\$ 14,000.00	\$ 14,000.00	\$ 14,000.00
Licensing agreements and support contracts	\$ 150,000.00	\$ 150,000.00	\$ 150,000.00
Consulting and specialize repair	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Repair	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
<b>Professional Development</b>			
Curriculum development	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
Substitute pay	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Conference registration and travel	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
<b>Human Resources in Support of Plan</b>			
Salaries and benefits	\$ 620,000.00	\$ 650,000.00	\$ 680,000.00
<b>Collection Development</b>			
	\$ 114,479.00	\$ 114,479.00	\$ 114,479.00
<b>Totals</b>	<b>\$ 1,210,479.00</b>	<b>\$ 1,356,479.00</b>	<b>\$ 1,305,479.00</b>
<b>Possible Funding Sources</b>			
Common School Funds	\$ 108,503.00	\$ 108,503.00	\$ 108,503.00
District technology budget	\$ 980,626.00	\$ 1,112,201.00	\$ 1,062,726.00
Building budgets	\$ 72,500.00	\$ 76,725.00	\$ 75,000.00
Special Ed Budget	\$ 20,750.00	\$ 20,750.00	\$ 20,750.00
E-rate	\$ 9,600.00	\$ 9,800.00	\$ 10,000.00
Title IIA grant	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00
Title IID grant	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
Ed Tech Competitive Grants		\$ 10,000.00	\$ 10,000.00
<b>Totals</b>	<b>\$ 1,210,479.00</b>	<b>\$ 1,356,479.00</b>	<b>\$ 1,305,479.00</b>

## **Dissemination to Stakeholders**

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This plan will be presented to the Board in May 2007, with a goal of approval in June 2007. Once approved, it will be presented to the public at the District's annual Town Meeting.

Components of the plan will be summarized for distribution in school newsletters and at parent events in the schools, including the training sessions that are described in the implementation plans.

The plan will be included in community interest stories, published in the local newspaper, which showcase student achievements using technology.

The Public Library, Rotary Club, Youth Center, and other partners of the District will be provided with summaries of the plan, and representatives of the district who are liaisons with these organizations will pursue opportunities to collaborate to achieve our shared goals.

The Information Technology and Literacy Team will develop a slogan for the plan to use on promotional material. They will purchase T-shirts emblazoned with the slogan to wear at training events and other functions.

The Community Outreach Coordinator will publish technology-related opportunities for the public in the COOP (Community Opportunities Open to all People).

The full plan will be available to all stakeholders and the public at large on the District's public website.

## **Monitoring, Evaluation, and Revision**

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The Information and Technology Literacy Team will use data from the enGauge surveys, anecdotal reports, assessments completed as part of the new professional development program, and available recorded district data to evaluate and review the goals of this plan.

The ITLT will annually review the plan's goals and evaluate progress toward completion. Implementation plans will be revised based on their current status and any other factors which impact them. The Technology Director is responsible for organizing periodic reviews.

Development of the 2010-2013 Plan will begin in the spring of 2009.

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## **Appendices**

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### ***Appendix A: Relevant Board Policies***