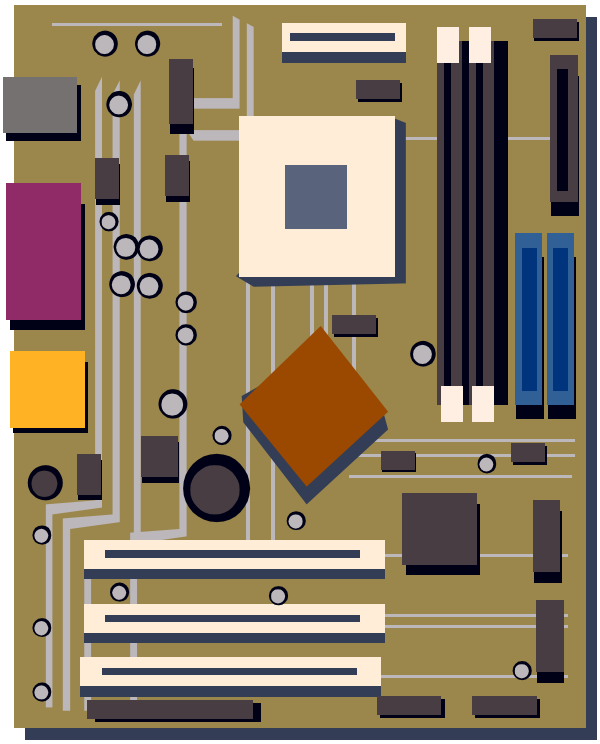
Oregon Educational Technology Plan 2006-2010



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The 21st century will require children to live, learn, and work in environments vastly different from the traditional classrooms they currently encounter. In order for students to be prepared for the demands of this new era, classrooms and schools need to reflect the changes in philosophy, teaching methods, environment, and equipment which are necessary for students to be competitive and productive in the information and communications age.

Imagine a home...
....where every parent regardless of native language or educational background can communicate readily with teachers about students' progress, improve parenting skills, and get an advanced degree or job training without leaving home.

Imagine a school...
.....where every student regardless of economic level, age, ethnicity, ability or disability can be immersed in the sights, sounds, and languages of other countries; visit museums; research the holdings of dispersed libraries; and explore the inner workings of cells from the inside out or the cold distance of outer space from inside a virtual space suit, or the depths of our oceans via a remote submarine.

Imagine a district.....
.....where every educator regardless of subject, experience, location, size or wealth can get hands-on training instantaneously -- when or where he/she needs it; interact with a virtual community of professional colleagues; and have access to student performance data as well as the analytical tools to use data effectively.

Imagine a state...
....where every community member regardless of where they live can collaborate with work colleagues at distant sites; search out primary source materials and data on events halfway around the world; and take high school or college courses with fellow students from Seville, Spain to Nyssa, Oregon.

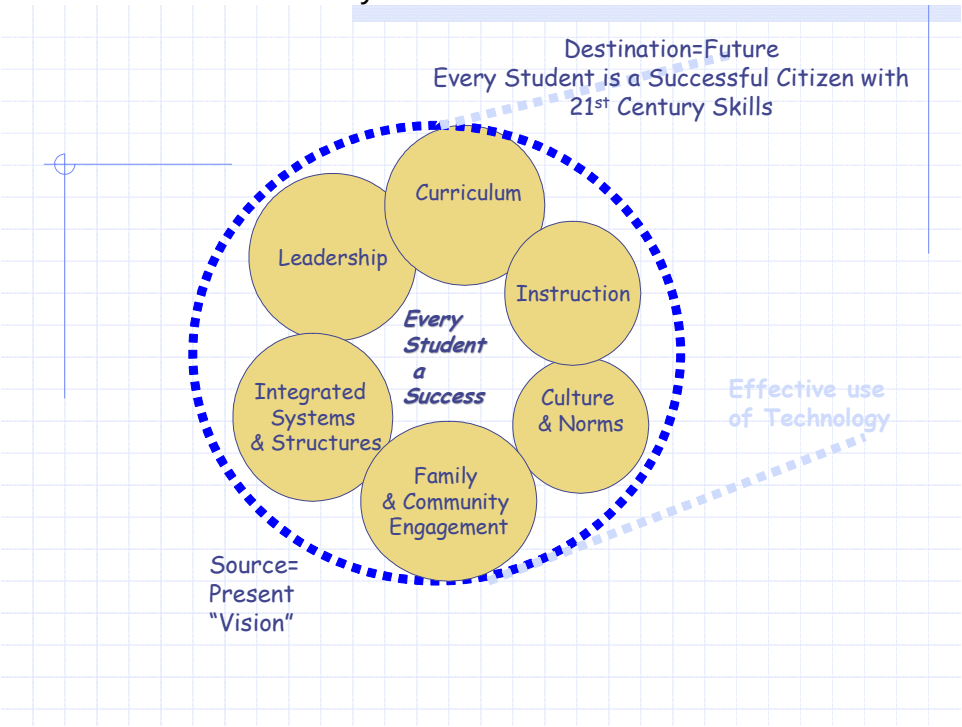
What we might see in some of today's classrooms:

> *Seventh grade students in Central Oregon are using technology to learn about the Lewis and Clark Expedition. Their first step is using the Internet to get the basics: Who, what, where and when. Next, they joined the Expedition as they virtually traveled down the Columbia in dugout canoes on the National Geographic website. As students make their virtual journey they collaborate with their fellow students across the country using podcasts, blogging, and vlogging to share their findings. Students map their day to day locations using global positioning system (GPS) mapping. Collections of information on new plant and animal species they discovered, the cultures of the different Native American tribes they encountered, and the changing geography are collated on a shared web workspace using an electronic database to organize and analyze their information. The collaboration was capped with an interactive videoconference summit where students shared their findings with students in St Louis, Chicago, Des Moines and Denver. The results of their research were presented in multimedia reports, video uploads, and podcasts published on a website of student projects from along the Lewis and Clark Trail.*

This is only a beginning . . .

What Does The Educational Technology Vision Look Like?

A twisted cable of integrated standards for success moving us from the present to a future where every student is a successful citizen with 21st Century skills.



Key Themes for Learning Through the Effective Use of Technology

- Curriculum
- Instruction
- Culture and Norms
- Family and Community Engagement
- Leadership
- Integrated Systems and Structures

Just as twisted cable moves data from source to destination, these themes are the essential components for moving the Oregon Educational Technology Plan from concept to successful implementation. Effectively using technology in education will be successfully implemented when we work towards a vision of future possibilities where every student is a successful citizen with 21st Century skills. In order to implement that vision of learning possibilities, we must provide leadership by developing policies and practices that promote innovative uses of technology in an evolving learning environment. Community Engagement between pre-K-12 and higher education, educators and business, public and private agencies and organizations must be encouraged so that we share ideas, new technologies, strategies and resources for the benefit of all learners at all ages. By learning from each other, we can offer high quality professional development to teachers, administrators, and higher education staff that will build capacity for strengthening the quality of learning opportunities. What happens in K-12 informs higher education, particularly pre-service programs that are preparing future teachers. K-12 and higher education inform the development of products and

technology innovations from business. Effective practices in business move to the classrooms. Both education and business push for policies that open the door for future changes in how we use technology. Working together, we build the capacity and sustainability necessary to achieve that future vision.

Purpose

The purpose of this document is to create an overall Strategic Technology Vision that will lay a path for accomplishments expected by 2012 and also align with the USDE Strategic Plan, ODE Strategic Framework, IRMD Strategic Plan, E2T2/E-Rate Plan, Oregon School Board Vision and the Quality Education Model.

The Strategic Technology Vision will be used to; articulate strategies for:

- technology initiatives and service offerings for the Oregon enterprise of education
- identify roles and responsibilities of various stakeholders
- long-term staffing and technical service offerings of the Oregon Department of Education

Goals of the Educational Technology Plan

Every Day . . . Every Student a Success

Technology is one of many tools that students have at their disposal as they engage in the learning process. Educational technology is the application of technology to the teaching and learning process. Technologically literate students access and acquire knowledge, exchange ideas and opinions, solve problems, and create, innovate and express themselves through the skillful use of a variety of technologies. As with any other tool, technology should be used by students when its use will increase understanding and enhance learning.

As technology filters out to every aspect of our society, it is essential that students not develop technological skills in isolation. Rather, technology should be integrated into every content area. By providing access to information, opening pathways to communication, and facilitating personal understanding, technology can support learning in all subjects.

The goals of the Oregon *Ed Tech* program are to:

- Improve student academic achievement in English/language arts, mathematics, science, social sciences, the arts and second languages (world languages) through the use of technology.
- Assist every student – regardless of race, ethnicity, income, geographical location, or disability – in becoming technologically literate by the end of eighth grade.
- Integrate technology into curriculum and instruction through high quality professional development based on relevant research and Oregon's Instructional Technology Common Curriculum Goals.

The goals of the Oregon Educational Technology Plan focus on the Oregon Education Performance Standard for Educational Technology and the six *Standards for District Success* that each district uses for self evaluation in the district *Continuous Improvement Planning* Process (Guidance: http://www.ode.state.or.us/schoolimprovement/cdip/planguid.doc). Oregon's *Continuous Improvement Planning* process is designed to include all stakeholders in creating a plan to ensure that all students regardless of race, ethnicity, gender, income status, Special Education or English language proficiency, show continuous academic improvement, attain high standards and develop as life-long learners. The planning process accomplishes this task in several ways. First, improvement planning is an on-going process driven by student needs. Second, it ensures that planning is comprehensive; most grant programs and other initiatives are rolled into a single district plan that supports school and district improvement. Third, the planning process allows local districts to integrate and leverage funding sources to make sure that the improvement plan is fully implemented. Fourth, the plan provides a means of staying on course throughout implementation of improvement strategies.

A Self-Evaluation is an analysis of data that identifies what the district is doing well (achievements) and areas that need improvement related to the *Oregon Education Performance Standards*. Further analysis of practices that contribute to both achievements and areas that need improvement is conducted using the *Standards for District Success*. The self-evaluation process leads to a comprehensive look at district performance focused on achievement gaps, learning opportunities for students, systematized practices and procedures.

Oregon Education Performance Standard for Educational Technology

All students will have access to and develop proficiency in utilizing technology to improve their academic achievement as evidenced by:

- Improved student academic achievement in English/language arts, mathematics, science, social sciences, the arts and second languages (world languages) through the use of technology.
- Demonstrate significant increase of student access to technology for the purpose of supporting academic achievement.
- Assist every student – regardless of race, ethnicity, income, geographical location, or disability – in becoming technologically literate by the end of eighth grade.
- Demonstrate significant increase of student access to technology for the purpose of supporting academic achievement.
- Integrate technology into curriculum and instruction through high quality professional development based on relevant research and Oregon's Instructional Technology Common Curriculum Goals.
- Documented professional development to support teachers in integrating technology into instructional program

Standards for District Success

1. Curriculum:

Develop and implement curriculum that is rigorous, intentional, aligned to state goals and content standards, and ensures seamless student transitions.

Objective 1.1: Ensure equitable access to technology for all students.
Oregon must build on the current technology infrastructure supporting the schools in promoting advanced and emerging technologies that will extend electronic educational resources and services to all students. Universal access by all students must occur in order for there to be a true transformation of the teaching and learning environment. There must also be support for research and continued development of new and emerging technologies.
Objective 1.2: Technology tools and digital content that engage our students will be seamlessly integrated into all classrooms on a regular basis.

Objective 1.3: Expand learning options for all student and schools by developing and maintaining dependable access to advanced technologies and telecommunications connectivity.
Objective 1.4: Establish Oregon Virtual School District.

2. Instruction:
Instructional programs actively engage all students by using effective, varied, and research-based practices to improve student academic performance. Research-based, results driven professional development opportunities for paraprofessionals, teachers and administrators focus on improved teaching and learning.

New learning environments should enhance student-centered learning. Each child can follow different paths in content areas based upon their individual needs and skills. There should be an emphasis on collaborative work that requires the exchange of information in these environments. Learning should be active, exploratory and inquiry based. Critical thinking and informed decision making should be products of this environment. Multi-sensory stimulation that is authentic in a real-world context should be common in learning environments.

Strategies must encourage the development and use of technologies that increase the capacity of state and local education officials to: (1) bolster and expand educational services for all students (K-20), (2) improve communication linkages among colleagues in education and research communities, and (3) better inform students, parents, and the public with reference to effective and worthwhile educational programs and services.

Objective 2.1: All teachers will possess the knowledge and skills to effectively use and integrate technology into their instruction.
Objective 2.2: Provide professional development to ensure that all teachers are technologically literate.
Objective 2.3: Increase academic achievement across all content areas though the meaningful and effective use of technology by students, teachers, an administrators.
Objective 2.4: Provide every student with opportunities for growth in technology proficiency.

3. Culture and Norms:
Oregon schools provide effective learning environments by working with families, community groups, business partners and higher education to remove barriers to learning in an effort to meet the intellectual, social, career and developmental needs of all students.

Objective 3.1: Develop partnerships with families, community groups, business partners and higher education to develop opportunities for contextual learning.

Objective 3.2: Work towards a culture where educational partnerships:

Promote Technologies and Electronic-based Services that Influence Learning and Achievement.

- Create a culture that supports new learning environments that include virtual, online, and beyond;
- Incorporate alternative methods of assessing students;
- Weave the Instructional Technology Common Curriculum goals and national technology standards (ISTE) into all the other Oregon content standards;
- Expand into international learning opportunities that capture the global nature of learning and offer exchanges, social opportunities, and cross cultural interactions;
- Use technology as a tool for data analysis; and
- Support school districts in developing, using and sharing online learning and other new learning environments.

4. Family and Community Engagement:
Oregon effectively engages parents, community groups, business partners, and higher education in meeting the intellectual, social, career and developmental needs of all students.

Objective 4.1: Engage families, communities, business partners and higher education in developing relationships with schools, districts and other educational organizations to promote interactive communication through the use of technology.
Objective 4.2: Promote and develop Web-based applications, services and resources.

5. Leadership:
State, school and district instructional decisions focus on support for teaching and learning, organizational direction, high performance expectations, developing leadership capacity and creating a learning culture that prepares students to live and succeed in the 21st Century.

Objective 5.1: Provide leadership training, resources and technical assistance to develop common understanding of integration of technology into curriculum, instruction and school-wide systems.
Objective 5.2: Provide professional development to ensure that leadership is technologically literate.

6. Integrated Systems and Structures:
Develop a statewide integrated and interoperable data system for all schools that is tied into a statewide data warehousing system that operates under ESD governance model. Integrated data systems will allow administrators and educators to have the information they need to increase efficiency and improve student learning. This effort will allow us to use assessment results, not only for compliance but to inform and differentiate instruction for every child.

Districts develop, implement, and evaluate comprehensive improvement plans that communicate a clear purpose, direction, and action plan focused on teaching and learning. Schools and districts are organized to maximize use of all available resources to support high student and staff performance.

Objective 6.1: Effective research, evaluation and assessment will result in continuous improvement in the implementation and use of technology.
Objective 6.2: Technology will be used effectively to improve school administrative functions and operational processes.
Objective 6.3: All public schools have access to integrated instructional and administrative services across interoperable high-speed networks.
Objective 6.4: Sufficient support is provided for ongoing reliable network operations.
Objective 6.5: Provide leadership and resources to promote efficient procurement of infrastructure, including the identification and procurement of emerging technologies.
Objective 6.6: Ensure that ODE, districts and ESDs have in place network security, filtering, and disaster recovery plans.

Components of the ODE Technology Vision

Five main strategies are critical to Oregon's Technology Vision. The components of these strategies include: the Ed Tech Professional Development Cadre, the Oregon Virtual School District, he KIDS project, and the Virtual Policy Data Warehouse and the Oregon Department of Education and the Oregon Association of Educational Service Districts partnership. Here is a brief overview of each component.

- Ed Tech Professional Development (Scale Up): The success during first five years of the Ed Tech Cadre has led to an increase of about 25 members to 50 members of the cadre. Individual members of the Ed Tech Cadre are now forming regional cadres to support the educators in their ESD regions and districts. In addition to the regional cadres, the Cadre is seeking to expand the membership of the regional cadres to include school improvement specialists, other Title program coordinators, content area specialists, special educators, and administrators to further develop a common language about integration of technology into instruction that enhances student learning and increases academic achievement. The expansion of the Cadre will assist Oregon in ensuring that all districts, especially those serving high need students, will have greater opportunity to participate. This expanded Cadre will allow educators across the state to network and collaborate as we develop an understanding of how we can best build those learning environments that engage students in the use of emerging technologies, prepare teachers to facilitate learning to help our students develop 21st century skills, and to ensure our students are successful in their next steps after high school.

- Virtual Learning: The Oregon Virtual School District (OVSD) will bring disparate online course content programs together under one access umbrella, administered by the Oregon Department of Education. The purpose of the OVSD, legislated in 2005 through Senate Bill 1071, is to provide quality assurance, standardization, and statewide access for all Oregon students. The results will be a 21st century learning environment that offers universal opportunity and uniform quality. The OVSD is not meant to replace, but rather to supplement brick and mortar classrooms.

- KIDS Project: The purpose of the Pre-Kindergarten through Grade 16 (PK-16) Integrated Data System (KIDS) project is to develop a comprehensive data system encompassing the entire Oregon Education System. Throughout Oregon, there are a significant number of data centers serving School and Education Service Districts, ranging from custom packages installed in only one district to systems serving dozens of districts. These systems are not well connected or on the same platform, making meaningful district to district and district to state reporting difficult and costly. Phase II of the KIDS project will begin to enable the timely exchange of comparable information about the enterprise of education in Oregon as well as insure common data definitions, consistent and extensible schemas necessary for horizontal integration of student records, and timely transfers among districts. Data warehouse projects are currently underway at key districts. Phase III of the KIDS project will be

the statewide rollout of a comprehensive data system will allow accountability requirements to be addressed at all levels, including local, intermediate, state and federal.

- Virtual Policy Data Warehouse: This would be a cross-sector P-20 virtual student data warehouse as a resource for researchers, policy analysts, and decision makers in all sectors of public education in Oregon. The warehouse would serve as an interactive knowledge base with linked data accessible to key users from the Oregon Department of Education (ODE), Department of Community Colleges and Workforce Development (CCWD), and the Oregon University System (OUS)—primarily agency, college and university researchers, and policy staff—with direct access to unit record data as appropriate. Implementation of this concept would require compliance with privacy regulations, including FERPA, and establishment of a "Data Review Committee" through which users would request access and receive guidance in obtaining data and reports through the warehouse. Users would be required to sign confidentiality agreements regarding use of the data.

  Properly implemented, this warehouse will:

  - ✓ Improve the capacity of the education sector to identify shared problems and issues for potential research;
  - ✓ Facilitate discussion about the use of data for decision making and improvement;
  - ✓ Help build capacity in the public schools to analyze data;
  - ✓ Maintain the security and confidentiality of students' records;
  - ✓ Increase the potential for securing external research grants; and,
  - ✓ Provide a structure for collaborative oversight of shared data.

  Oregon State Board of Education: OSBE has a mission that "each student (pK-14) demonstrates the knowledge and skills necessary to transition successfully to their next steps: advanced learning, work, and citizenship." A data warehouse for research will assist the Board to know whether their policies are assisting students to meet the goal. The Joint Boards of Education has four task groups to improve the pk-20 educational enterprise and one of those groups focus on data and information sharing.

- The Oregon Department of Education (ODE) and the Oregon Association of Educational Service Districts (OAESD) have created a partnership to address many of the issues facing our school systems. Leadership, financing, teacher training, e-Learning, broadband access and integrated data systems are all areas that require teamwork from education, business, higher education and local communities. This partnership will work hand-in-hand with all partners to move our efforts forward. The work of this partnership will focus on critical components Oregon's success in providing new 21st Century learning environments that prepare all of our students for their next steps.

Oregon Education Enterprise

The Oregon PK-12 education system consists of 201 districts providing services to 552,320 students (based on the October 1, 2004 enrollment count). The size of these districts ranges from less than 100 students to about 55,000 students in the case of Portland Public Schools. Most districts are quite small, with nearly 70% of them serving 2,000 students or less. On the other end of the scale, twelve districts in the state had more than 10,000 students during the 2003-4 school year.

Most of the larger districts, and some of the mid-sized districts, have been able to develop and support their own information systems environments. Smaller districts, on the other hand, have pursued an alternate model for developing and supporting a PK-12 information system environment. Specifically, because their small size limits the capability of most districts to meet specialized needs such as information systems services, a robust regional service structure has evolved, consisting of approximately twenty Education Services Districts (ESDs) spread geographically around the state. The ESDs, which receive separate funding from the legislature, have been allowed to develop and provide a variety of services based upon their capabilities and the particular needs of their clientele. In addition to providing information systems support, many of the ESDs are active in providing special education staff services, videoconferencing and distance learning support, as leading examples. Different ESDs have focused on different types of services over time – some are deeply involved in support of administrative systems (student, finance and HR) while others are not. ESDs also have been allowed to extend their services to districts outside of their primary service area if they happen to be a competitive provider of such services. In addition, some of the larger school districts do provide administrative systems support to smaller nearby districts.

Certain ESDs have targeted administrative systems services with significant success, and have developed a sizeable district user base. In most cases, these users are small or medium-sized (2,000 – 10,000 students), but some of the largest districts also have engaged ESDs to provide selected services. For example, the Multnomah ESD serves eight districts with a combination of student, financial and HR products, and counts some of the state's largest districts among its clients (including Portland for student systems). Linn-Benton-Lincoln (LBL) ESD provides student, financial/payroll and special education systems support to 43 districts located all around the state, many of them quite distant from LBL's core geographic area of service. Other ESDs, such as Clackamas, South Coast and Northwest Regional, also have significant user groups.

Districts traditionally have made all significant decisions regarding their administrative systems, including:

- Whether to develop their own application or select a vendor package;
- Whether to operate and support their applications internally versus contracting this out to a hosted services provider (i.e., an ESD or another district);

- What functionality to deploy within their district; and
- When and how to replace an existing application and/or move to a new hosted services provider.

As a result, approximately ten different vendors' SIS applications are in widespread use around the state, while five or six districts operate and maintain their own internally-developed systems. There is a similar array and mix of packaged and custom-developed FIS and HRIS/Payroll applications. This multiplicity of applications has been noted by a number of observers and cited as a supporting reason for consolidating administrative solutions statewide.

Educational Technology Today

Leadership, Capacity Building and Sustainability: The Oregon Ed Tech Professional Development Cadre

Moving teachers to adopt technology as a significant resource for teaching and learning: The Oregon Department of Education and The Organization for Educational Technology and Curriculum have partnered over the past five years to provide professional development for professional development providers in Oregon through the Oregon Ed Tech Professional Development Cadre. This initiative has allowed the Oregon Department of Education to build statewide capacity for delivering high quality professional development and technical assistance across the state. Cadre members include Education Service District Technology Specialists, Ed Tech Competitive Grant Project Directors, and Educational Technology Specialists from school districts across Oregon.

The goal of the Oregon Ed Tech Professional Development Cadre is to build partnerships and work collaboratively to provide leadership in using best practices to effectively integrate different technologies into instruction with the goal of improving classroom teaching, student learning and professional development for all Oregon educators and pre-K to 20 students.

The professional development activities are best illustrated at: http://pdc.oetc.org/.

Outcomes:

- Cadre members have learned about new and expanded educator and student resources.
- Cadre members have learned about emerging technologies.
- Cadre members have shared professional expertise to extend and enhance each other's skills and knowledge.
- Cadre members have used new knowledge and skills learned through Cadre Gatherings to provide professional development for educators in their regions and districts.

Professional development has proven to be a critical component for effective technology integration. Evidence shows, that if teachers do not have adequate professional development in the use of the technology as well as the integration of that technology into curriculum and instruction the likelihood of the technology being used is low. The most successful professional development is ongoing, sustained, classroom focused and includes the support of a mentor. Administrative support for technology integration also plays an important role in the sustainability and expansion of effective practices.

Alignment to National Standards for Educational Technology

In addition to professional development there are other key factors for successfully moving instructional technology forward including a common understanding of what we

mean by technologically literate students with 21st Century Skills and adequate funding to support technology integration over time.

In order to develop that understanding, Oregon has looked at National and other states standards and frameworks. Most states (including Oregon), as reported in the SETDA 2005 National Trends Report on Enhancing Education Through Technology - Title II D (http://www.setda.org/resources/NationalTrendsReport2005FINAL1%2Epdf), align their work to one or more of the following:

- *ISTE NETS for Students*
- *ISTE NETS for Teachers*
- *ISTE NETS for Administrators*
- *enGauge 21st Century Skills*
- *enGauge Six Essential Conditions*
- *CEO Forum 21st Century Learning Guide*
- *CEO Forum Star Chart*
- *Seven Dimensions for Gauging Progress* (Milken Foundation)
- State Educational Technology Directors Association (SETDA) Resources
- Regional Educational Technology Centers such as the Northwest Educational Technology Consortium (NETC) at Northwest Regional Educational Laboratory (NWREL)

As an initiative, rather than an event, professional development and technology integration is complex. We have many things to work on as we move forward:

- Continue to focus on integration of technology to improve academic achievement rather than a technology as a separate subject especially at the earlier grade levels.
- Professional development that includes opportunities for pre-service teachers as well as practicing teachers.
- As a district priority move technology from a “frill” to an essential.
- Funding for support of technology essential to keep it working; we must consider total cost of ownership.
- Leadership that understands and uses technology, modeling use of it on a regular basis.
- Professional development for administrators.
- Professional development for paraprofessionals.
- Need to educate parents, school boards, businesses, and community stakeholders about educational technology.
- Teachers must be empowered to use the technology with students.
- Need a strong link to curriculum standards.
- Development of partnerships with business and industry.
- Mentoring/coaching models that build teachers capacity to integrate technology.
- Need effective strategies put in one place for easy access—RESEARCH.
- Address pressing issues and remove barriers for online programs, schools, public charter schools and the myriad of other options available for students to access content for credit outside the walls of the traditional classroom.

- Curriculums from computer repair to networking need to be provided to students in our schools (i.e. writing code, network technology, computer sciences—ranges of course offerings).
- Stable and adequate funding!

Resources for Educational Achievement and Leadership (REAL)
http://www.ode.state.or.us/teachlearn/real/
The primary goal of this resource on the Oregon Department of Education website is to provide comprehensive, reliable information, tools, and resources regarding Oregon's content standards. In addition, REAL uses a systems approach to foster student success by offering a variety of resources designed for classroom teachers, district and school administrators. Each of the six Standards for District Success is supported by a body of research that emphasizes its importance in student achievement. The resources found on this site include research reports, related external and internal links, as well as state and national best/promising practices.

Evaluation
Each of the districts receiving the Ed Tech Competitive Grants has been using the Profiling Educational Technology Integration: Resources for Assessing Readiness and Use (PETI) Tool to evaluate the extent to which activities funded under Title IID (Competitive) have been effective in integrating technology into curricula and instruction. Oregon is evaluating the use of this tool as an effective process for measuring the effectiveness in all districts receiving Title IID formula funding. We are reviewing the current status and readiness of the state in six major areas related to technology and 21st Century learning. A matrix is being developed to allow each district and the state to determine levels of progress on each of the following areas.

1. **The Impact on Learners** – Is the school effectively using technology to increase the engagement of students in relevant authentic, differentiated learning that emergent research links to improvement of academic achievement and acquisition of 21st Century skills?
2. **Effective Practice** - Are learning environments characterized by powerful, research-based strategies that effectively use technologies?
3. **Educator Proficiency** - Are educators proficient in implementing, assessing and supporting a variety of effective practices for teaching and learning?
4. **Robust Access, Anywhere, Anytime** - Do students and school staff have robust access to technology-anytime, anywhere-to support effective designs for teaching and learning?
5. **Digital Equity** - Is the digital divide being addressed through resources and strategies that ensure that all students are engaging in an educational program aligned to the vision?
6. **Vision, Systems and Leadership** – Has the education system reengineered itself into a high-performance learning organization aligned to a forward-thinking vision?

Funding
Currently, all funding for Educational Technology in Oregon comes from Title II *D: Enhancing Education Through Technology* funding under the *No Child Left Behind Act*. Oregon schools use this funding to:

- Support high-quality professional development programs that enable schools to effectively integrate technology into curriculum and instruction aligned with State academic standards and Instructional Technology Common Curriculum Goals.
- Enhance ongoing professional development for teachers, principals, and administrators by providing access to training and updated research in teaching and learning through electronic means.
- Assist districts in the acquisition, development, interconnection, implementation, improvement, and maintenance of an effective educational technology infrastructure in a manner that expands access of technology to students (particularly disadvantaged students) and teachers.
- Support the rigorous evaluation of programs regarding the impact of *Ed Tech* programs on student academic achievement, and ensure the results are widely accessible through electronic means.

ASSURANCE: Financial assistance provided under NCLB Title IID: Enhancing Education Through Technology is used to supplement, not supplant, State and local funds.

Oregon Virtual School District

The 73rd Oregon Legislative session passed a ground-breaking measure for the Oregon education community. Senate Bill 1071 provides for the implementation of the Oregon Virtual School District (OVSD). The bill authorizes the Oregon Department of Education, with education and community partners, to set quality standards and to provide planning and oversight for the development and delivery of virtual content, teacher training, and collaborations that will constitute the OVSD.

The OVSD is a consortium of Oregon-based virtual learning programs available to all Oregon students through one common portal. Offerings may be programs or individual classes. They may be developed by ESDs, school districts, or individual schools. The classes are offered in a variety of modalities like web-based instruction, online learning, interactive videoconferencing, or cable and digital networking. Each K-12 class or program aligns with the virtual school standards established by the State Board of Education and meets Oregon content standards. Teachers and course developers are highly qualified and trained in virtual delivery strategies. To access courses via the OVSD, Oregon students need access to a high speed Internet connection.

The Oregon Virtual School District is not meant to compete with existing schools and programs, nor is it a replacement for the classroom. Rather, it is a way to improve instruction through the sharing of resources. The OVSD will supplement available content and instructional opportunities by affording students greater opportunities and uniform access to:

- Credit recovery options
- Dual credit programs
- Accelerated learning tracks
- Core content tutorials
- Advanced placement content
- Options for infirm and incarcerated students
- Supplemental content like virtual field trips and guest speakers

The Oregon Virtual School District creates more opportunities for students through a window to the world via computers, televisions, videoconferencing and other means of electronic connectivity. In this dynamic learning environment, students have freedom to explore, to challenge themselves, to be inspired by others, and explore a breadth of opportunities beyond the boundaries of their classroom without leaving their home community.

Current IT Environment

There are a many technical services provided at the Oregon Department of Education, which is an agency with relatively few resources for the services provided. Some of those services have been listed below. Currently ODE supports:

- ✓ The ODE Internal Helpdesk consists of three (3) people and supports desktop and user support for ODE employees in the Public Service Building as well as the State Lands Building, as well as the Oregon School for the Blind (OSB) and the Oregon School for the Deaf (OSD). The supported desktops operating system at this time is Windows XP.

- ✓ The ODE External Helpdesk (ODE Helpdesk) consists of 8 people (2 office specialists and 6 information specialists). The unit supports the general public, internal Agency staff, School District staff, and Education Service District staff in the use (and maintenance) of ODE websites and mandated data collections. Services include but are not limited to: Call Answering and Voice Mail Retrieval, Call and Fax Routing, Trouble Ticket Creation and Assignment, Email Routing and Importing, Web Site Navigational and Technical Support, Web-Based Application Support and User Training, Data Maintenance, Videoconference Scheduling, Web Security Administration, Web Posting and Link Maintenance, Static Web Page Maintenance and Development, and Application Testing and Quality Assurance.

- ✓ The network and server team is composed of two (2) people and supports all local area network (LAN) operations for four different locations to include OSB and OSD. The LAN's are switched-based and all sites currently use Cisco hardware. In addition to supporting LAN operations, the network and server team supports 25 different servers and a 5TB (terabyte) SAN. They also serve a supporting role for the web, database, and acting as second and third tier support for the helpdesk teams, as well as managing varied IT projects.

- ✓ The development team consists of six (6) database programmers, six (6) web developers and four (4) access developers. All of these teams manage data applications for the Department and nearly every educational administrative unit in Oregon. The database team promotes and facilitates consistent representation and usage of data, data integration and data integrity. The Web Team builds web enabled database applications and facilitates standards for these web based applications. Together, the Web and Database Team have developed and now maintains over 50 data collection systems for external administrative units. Roles include: data validation to maintain data integrity, Department reporting, reporting for School Districts and facilitating Federal mandated reporting. The access team builds Access applications and provided user support with the Access tool set for both internal and external users. The Access Team has developed and now and maintains over 27 Access applications.

Server hardware and software standards for ODE are as follows:

- Server Hardware: Dell
- SAN: EMC CX400
- SAN Fiber Switches: McData
- LAN Switches: Cisco
- Server Operating systems: Microsoft Windows Server 2003
- Email: Microsoft Exchange 2003
- Database: Clustered Microsoft SQL 2000 Enterprise Server (note that we will be upgrading to SQL 2005 Enterprise in the summer of 2006). One cluster is 32 bit while the other is a 64 bit Itanium cluster.
- Internet/Intranet/Extranet: IIS 6.0
- Developer Languages: ASP.NET, SQL, and Visual Basic.NET

Resource Opportunities

Federal

The Oregon Education Enterprise must continue to take advantage of federal programs and the dollars those programs gain in order to help meet the needs and goals of technology for the enterprise. Two examples of the more common programs are:

- E-Rate – Or more precisely, the Schools and Libraries Universal Service Support Mechanism, which provides discounts to assist most schools and libraries in the United States to obtain affordable telecommunications and Internet access.
- Enhancing Education through Technology (E2T2) - The primary goal of the Ed-Tech program is to improve student academic achievement through the use of technology in schools. It is also designed to assist students in crossing the digital divide by ensuring that every student is technologically literate by the end of eighth grade, and to encourage the effective integration of technology with teacher training and curriculum development to establish successful research-based instructional methods.

Private Corporations/Partnerships

The Oregon Education Enterprise should be seeking out relationships and partnerships with the larger corporations that are setting standards in the hardware and software markets. Examples of these corporations would include Intel, Microsoft, Dell, and IBM. Maintaining and nurturing these relationships accomplishes several things that will be key to the Enterprise's success, including:

- Opportunities to become part of 'BETA' programs that would allow the Oregon Education Enterprise the opportunity to become part of the future instead of lagging in the past.
- Because of the size of the Oregon Education Enterprise, there exists an opportunity to leverage that size to obtain better pricing and become a more prominent customer to those corporations.
- Allowing for direct input to the corporations to help them steer products or services that they have oriented to the education arena. In this manner a symbiotic relationship is formed where the corporation gets a marketable product to other education enterprises and the Oregon Education Enterprise gets solutions that they helped to design and grow.
- Entities that are in on the 'ground floor' of a product often times either receive deep discounts for helping to develop and grow the product or just receive the product for free. This is a great way to stretch the Oregon Education Enterprise budget to develop or acquire solutions that meet its needs.

Appendix A

Technology Common Curriculum Goals

1. Demonstrate proficiency in the use of technological tools and devices.

2. Select and use technology to enhance learning and problem solving capacity.

3. Access, organize and analyze information to make informed decisions, using one or more technologies.

4. Use technology in an ethical and legal manner and understand how technology affects society.

5. Design, prepare and present unique works using technology to communicate information and ideas.

6. Extend communication and collaboration with peers, experts and other audiences using telecommunications.

Appendix B — Instructional Technology Framework

Common Curriculum Goals #1:
Demonstrate proficiency in the operations and functions of technology systems (e.g. software, networks, computers and other digital devices)

	K	1	2	3	4	5	6	7	8	CIM
Basic Functions Students understand the capabilities of a variety of technologies ***and can choose the appropriate technology for their purpose.***				Correctly identify components of computers and other technologies and describe their function (e.g. keyboard, mouse, track pad, audio, video, monitor, printer) Insert and remove CD's and floppy disks		Understand the capability of peripheral devices (e.g. scanners, digital cameras, probes, video editing)			Understand the capability of peripheral devices (e.g. probes, graphing calculators, video editing, video conferencing equipment)	Make informed choices among technology systems/select appropriate tech for the task Recognize that technology can be used outside the classroom setting (e.g. planning vacations, balancing a checkbook, researching colleges)
Basic Operations Students demonstrate the ability to use devices to complete tasks				**Open and close software applications** Demonstrate ability to move between documents and software applications Print and save documents independently Navigate within a document, CD or other software program		Use network to locate and retrieve files Demonstrate ability to retrieve, print and save documents, text or images from multiple locations (e.g. from network servers, Internet, peripheral devices) Navigate the desktop effectively (e.g. use toolbars, access LAN like fileservers) Use peripheral devices with assistance (e.g. scanners, digital cameras, video cameras, probes for data collection)			Log on and off networks (e.g. fileservers, Intranet, Internet) Demonstrate the ability to run multiple applications at the same time and import and export data between applications Print, save retrieve, organize and backup files Navigate the Internet with appropriate software Connect and use audio and video devices, probes, and other digital equipment Use audio/video conferencing technologies	Understand that programming languages written by humans determine what the computer can do

	K	1	2	3	4	5	6	7	8	CIM
Maintenance and Troubleshooting Students apply strategies for identifying and solving hardware and software problems that occur during everyday use (OHIO)				Check cables, power and warning lights Restart a frozen computer Replace paper in printer Know when to call for help		Check printer warning lights Solve printing problems (e.g. reloading paper, replacing toner, fixing paper jams) Operate computer and put software away properly (e.g proper shut down procedures, using care with the computer)			Connect peripheral devices and solve connection problems Distinguish between problems with hardware and problems with software Clean and care for hardware and software	Translate files for use in other formats (e.g. PC-Mac, graphic formats, text files) Use a variety of resources to solve technical problems (e.g. support people, web sites, manuals)
Common Curriculum Goals #2: Demonstrate (an understanding of) the ethical, legal and social issues related to using technology in daily life (*by practicing responsible use of technology systems, information and software.)*										
	K	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**CIM**
Ethical and Legal Issues Demonstrate an understanding of the ethical and legal issues related to the use of technology.				Demonstrate **respect** for the work of others (e.g. not erasing or damaging files, documents or projects) Follow school standards for acceptable use and describe the consequence of not following those standards Recognize and acknowledge the ownership of electronic material		Demonstrate **safe** use of communication resources (e.g. email, web sites, chat rooms) Use appropriate email etiquette Follow school standards for acceptable use and describe the consequence of not following those standards Demonstrate an understanding of "fair use" guidelines (as it relates to print, video, music, software) **Document sources obtained electronically (e.g. web addresses, CD ROM's)**			Demonstrate **responsible** use of the Internet and email Follow school standards for acceptable use and describe the consequence of not following those standards Explain the difference between fair use and copyright Use a standard citation format when citing electronic sources	**Adhere to** network protocols (e.g. passwords, private accounts, files and records) **Follow school standards for acceptable use and describe the consequence of not following those standards** **Obtain permission, when appropriate, to use the work of others, and use an academic model when citing sources** **Discuss First Amendment protection as it relates to federal and state filtering and**

										access legislation
	K	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**CIM**
Social Issues Demonstrate an understanding of the implications of technology on society.				Describe several uses and advantages of technology in everyday life Recognize that technology is controlled by the user (e.g. technology does what the user directs it to)		Identify the role technology plays in a variety of careers Identify how technological developments influence one's life (e.g. choices for use of free time, elimination of jobs, privacy issues) Recognize how human error can impact the accuracy of technology			Identify potential technology-related career paths Demonstrate knowledge of changes in technology and the effect those changes have on society including positive and negative impacts Identify the manner in which telecommunications technology affects time and distance Demonstrate an understanding that technology can be used to magnify human capabilities	Utilize technology to research careers and develop a career plan Analyze advantages and disadvantages of widespread use and reliance of technology in the workplace and society as a whole. Analyze and assess the impact of technology on communication within the global community Describe the capabilities and limitations of technology

Common Curriculum Goals # 3: Use technology to increase productivity and promote creativity by constructing, preparing and presenting original works using a variety of media and formats										
	K	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**CIM**
Formatting Tools Students use technology writing tools to compose, revise and illustrate (AZ)				Create word processed documents of original works and use editing tools (e.g. cut & paste, spell check, thesaurus, font size and style, margins, spacing) **Design a word processing document with graphical elements (e.g. clip art, digital photos, drawing tools)**		Create a variety of word processed documents using editing tools (e.g. reports, newspapers, brochures**)** Enter text into word processing templates and electronic graphic organizers			**Create documents using professional formats (e.g. resume, letter of application, research paper)**	**Use a wide range of skills to design, develop, write, publish, and package documents that meet project /audience requirements.**

	K	1	2	3	4	5	6	7	8	CIM
Data Collection & Analysis Students use technology tools for data collection, manipulation and analysis				Enter information into a spreadsheet Use an existing spreadsheet to interpret information (e.g. comparisons, collections, graphs and charts Use a created database to find information		**Collect data from various sources (e.g. surveys, probes, classroom projects)** Create and use a spreadsheet to analyze data and display information Create appropriate graphs from spreadsheets and /or graphing tools Use a prepared database to search, sort, enter and edit data			Collect data from various sources (e.g. science probes, graphing calculators, GPS, Internet, PDA's) Use spreadsheet functions (e.g. formulas, graphs) to analyze, interpret and display data. Gather data, design/create a database and generate reports to graphically display information	Select appropriate technology devices to collect and record data (e.g. science probes, graphing calculators, GPS, Internet, PDA's Use advanced spreadsheet functions to organize, calculate, analyze data and make predictions Create and use spreadsheets and databases to manage personal/professional information (e.g. finances, schedules, addresses, purchases)
Keyboarding Students use the keyboard to enhance productivity				Demonstrate appropriate finger placement and develop basic keyboarding skills (e.g. 10 wpm)		Keyboarding skills equal or exceed handwriting in speed and quality (e.g. 15-20 wpm)			Keyboarding skills exceed handwriting in speed and quality (e.g. 20-25 wpm)	Keyboarding shills maximize the design, production, revision and delivery of all documents.
Publish & Present Students use technology to publish and present information				Create multimedia presentations with assistance, that include pictures, text and sound		Design and create multimedia presentations using multiple digital sources (e.g. input from camera, analog/digital video, scanner, CD-ROM, Internet) Work collaboratively to create and publish a simple web page that incorporates text, images and links.			Create multimedia presentations that incorporate graphics, audio, analog/digital video and text gathered from remote sources Create and publish a web page to share and collect information	Design and create original multimedia presentations related to an authentic local, national or global problem or concern (e.g. using web page, analog/digital video, animation, interactive multimedia, **kiosk,** CD-Rom, DVD)

Common Curriculum Goals # 4: Use telecommunications and distance learning tools to communicate, collaborate, and learn.										
	K	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**CIM**
Communicate and Collaborate With Others Students use technology to aid in communication and collaboration.				Send and receive email messages with assistance Communicate with participants located at remote sites (e.g. email, videoconferencing) Share information collected from electronic resources to add to a group task		Forward and send attachments with email messages Create an email address book Use telecommunications to pose questions to experts with teacher assistance Extend the scope of a project beyond the classroom using communication technologies			Function effectively within the email environment (eg. read, save, print, reply to, forward) Use telecommunications to pose questions to experts Send information to other distant classrooms (e.g. develop and post web pages, video tapes etc. to share information)	Communicate electronically with peers, experts and others to analyze data and/or develop a student project (e.g. email, video conferencing, discussion group)
				Participate in a class designed project using technology tools		Contribute/post information to an existing web site or participate in an online project			Participate in threaded discussions	Use a list serve to gather information on a specific topic
Learning Students use technology to acquire knowledge				Access teacher created tutorials to learn how to do something with assistance.		Access teacher created tutorials to learn how to do something.			Access on-line helps and tutorials Receive information from other distant classrooms	Enroll in on-line courses to receive credit (e.g. web based, VTEL)

Common Curriculum Goals #5: Utilize technology-based research tools to access, organize and process information.										
	K	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**CIM**
Locate and Organize Information Students locate and organize information from electronic resources				Locate and retrieve appropriate information from electronic sources (e.g. CD ROM, book-marked Internet sites) for a specific inquiry with assistance **Use book-marked sites on the Internet to find information on a specific topic** Use a search engine to locate information Use keywords to define a search Use graphic organizers (e.g. mapping and webbing software) with assistance		Locate and retrieve appropriate information from electronic sources (e.g. CD ROM, book-marked Internet sites) for a student designed inquiry, **Create personal bookmarks while conducting research** Select a search engine and understand its basic functions in relationship to finding information on the Internet. Understand how “or” and “and” impact an Internet search Organize information using appropriate tools (e.g. databases, spreadsheets, electronic webbing software)			Make informed and appropriate choices when selecting information resources (e.g. source documents, electronic documents, use of experts, telephone, analysis of URL) to address an inquiry Construct keyword searches using AND, OR, NOT (basic Boolean logic) Design and follow a plan, including a schedule, to be used during an inquiry process and make revisions to the plan as necessary	Identify a relevant local, regional or global issue or problem and use online search engines as well as resource-specific search features (e.g. CD ROMs) to find relevant information

	K	1	2	3	4	5	6	7	8	CIM
Evaluating Information Students evaluate the accuracy, appropriateness and bias of electronic information				Identify which information gathered during research is relevant to the task/topic		Compare information from multiple sources to determine accuracy and bias for specific topics.			Recognize that information serves different purposes and that data from electronic sources may need to be verified to determine accuracy or relevance for the purpose used	Identify the author of the information found from electronic resources and determine whether the author is an authority, displays bias and is a primary or secondary source
				Gather information from more than one source to analyze similarities and differences		Identify and distinguish points of view expressed in electronic sources on a particular topic			Use multiple sources of information (including non-electronic sources) to support or refute a viewpoint or position	Compare and contrast bias in electronic information Assemble and organize different viewpoints in order to assess their validity

Appendix C

STANDARDS FOR DISTRICT SUCCESS
Using Effective Technology Integration
Continuous Improvement Planning and District Accountability
Expanded Definitions

STANDARD 1: CURRICULUM

The district develops and implements a curriculum that is rigorous, intentional, aligned to state goals and content standards, and ensures seamless student transitions.

Indicators

1.1 Aligned with Oregon's Common Curriculum goals, content standards, Career related learning standards and extended applications and Oregon Administrative Rules

There is evidence that the curriculum is aligned with Oregon's Common Curriculum Goals, content standards and Oregon Administrative Rules.

- *This includes Oregon's Common Curriculum Goals for Technology and Content Standards and Benchmarks that specifically address the use of technology.*

1.2 Common academic core for all students

The curriculum provides access to a common academic core for all students.

- *Relevant student application of technology are applied to core curriculum*

1.3 Effective process for monitoring, evaluating, and reviewing curriculum

There is an effective process in place at the district and school levels for monitoring, evaluating and reviewing the curriculum.

- *Monitor the educational research for best practices technology tools to support instruction in core content areas*
- *Reviewing Curriculum includes alternative education including asynchronous, synchronous and hybrid educational options*

1.4 Educational programs and options are coordinated

There is evidence that educational programs and options are aligned and coordinated.

- *Ensure that researched-based uses of technology are aligned and appropriately used to support student achievement.*

1.5 Discussions among schools about curriculum standards

The district initiates and facilitates discussion between schools about curriculum standards to ensure they are clearly articulated across all levels and to eliminate gaps and overlaps.

- Ensure that district and school communications include discussion regarding instructional applications of technology and ongoing professional development.

1.6 Vertical alignment of curriculum with a focus on key transition points

There is evidence of vertical communication with an intentional focus on key curriculum transition points across grade configurations (eg: elementary to middle, middle to high, high and beyond) and systems to ensure a seamless P-16 program.

- *Communication includes intentional grade-level articulation to assure that students are technology literate by 8th grade, continued access to technology allowing students apply skills to meet Career Related Learning Standards.*

1.7 Multiple and diverse learning pathways available to all students (P-16)

The school curriculum provides diverse learning pathways to all students and specific links to

continuing education and career options.

- *Utilize technology to provide expanded learning opportunities for all students.*

1.8 Planning and processes to ensure successful student transitions between grade levels, programs and systems (K–12, postsecondary and beyond)

There is evidence of effective planning and processes to ensure successful student transitions across grade levels and school configurations.

- *Planning, leadership, and accountability will assure that students are technology literate by 8th grade, have continued access to technology, allowing students to apply skills to meet Career Related Learning Standards.*

1.9 Curriculum provides opportunities for career related learning experiences in the community, workplace and/or school

The school curriculum provides opportunities for career related learning experiences.

- *All students are trained in the use of emerging technology tools that align with their individual learning needs and utilize these tools in their work. This includes opportunities to use applied technologies across curriculum.*

1.10 Students have access to career learning frameworks and technical skills sets for their education planning

There is evidence that students have access to career learning frameworks and technical skills sets for planning.

- *Provide all students access to technology tools and career databases for education planning and provide dual and proficiency-based credit opportunities.*

STANDARD 2: INSTRUCTION

The school's instructional program actively engages all students by using effective, varied, and research-based practices to improve student academic performance. The district provides research-based, results driven professional development opportunities for staff and implements performance evaluation procedures in order to improve teaching and learning.

Indicators

Program

2.1 Instructional strategies aligned with goals

Instructional strategies are aligned with school, district, and state learning goals and assessment expectations.

The continuous improvement process should support the instructional technology common curriculum goals:

- *Demonstrate proficiency in the use of technological tools and devices.*
- *Select and use technology to enhance learning and problem solving.*
- *Access, organize and analyze information to make informed decisions, using one or more technologies*
- *Use technology in an ethical and legal manner and understand how technology affects society.*
- *Design, prepare and present unique works using technology to communicate information and ideas.*
- *Extend communication and collaboration with peers, experts and other audiences using telecommunications.*

2.2 Varied instructional strategies that are evidence-based

There is evidence that varied instructional strategies that are evidence-based are used in all classrooms.

- *Technological tools should be used to differentiate instruction, vary instructional strategies, and provide students with opportunities to demonstrate understanding.*

2.3 Strategies aligned and monitored to address learning styles

Instructional strategies are consistently monitored and aligned with the changing needs of a diverse student population to ensure various learning approaches and learning styles are addressed.

- *Provide technology-mediated (e.g. text-to-speech, online courses, assistive technologies, multimedia) methods of delivery to meet the needs of all students.*

2.4 Teachers incorporate technology into classrooms

There is evidence that teachers incorporate the use of technology into their classrooms.

- *Evidence should demonstrate teachers' ability to integrate technology in instruction to improve academic achievement.*

2.5 Instructional materials are current, compliant, aligned, and sufficient to serve all students

There is evidence that instructional materials are current, comply with state and district requirements, aligned with curriculum content standards, and sufficient to serve all students.

- *Make use of relevant Internet-based resources and tools.*

2.6 Multiple reliable assessments provide feedback on learning and identify achievement gaps

Varied assessments are rigorous, aligned and specifically designed to provide meaningful feedback on student learning, including inequities in student performance, for instructional

purposes.

- *Using technology tools to access, analyze, report, and apply reliable student data to make data-based decisions to improve instruction.*

2.7 Effective guidance, counseling and support for students

There is evidence that all students have access to effective guidance, counseling and support required for success.

- *Ensure that e-learning students have access to these services.*

Personnel

2.8 Teachers demonstrate content knowledge and mastery of diverse pedagogical methods

Teachers demonstrate the content knowledge and mastery of diverse pedagogical methods necessary to challenge and motivate all students to high levels of learning.

- *This includes effective technology integration practices within core content areas.*

2.9 Teachers are culturally competent

All teachers demonstrate the capacity to work effectively across cultures, value diversity, engage in self-reflection, adapt to the diversity and cultural contexts of the students, families and communities they serve, and support actions which foster equity of opportunity.

- *Teachers are able to address technological needs of 21st Century learners.*

2.10 Effective professional mentoring and on-going support

There is evidence that all staff members have access to professional mentoring and on-going support.

- *Mentoring and on-going support may occur online allowing teachers to take advantage of resources not locally available.*

2.11 Teachers are competent in data use and analysis

Teachers demonstrate knowledge, expertise and skill in the use and analysis of student performance data to inform instruction.

Mentoring and on-going support may occur online allowing teachers to take advantage of resources not locally available.

- *Be able to access and analyze student performance data,*

Professional Development

2.12 Intentional professional development strategy

The district has an intentional plan and allocates resources for building instructional and leadership capacity through sustained professional development.

- *Includes staff development addressing technology use and integration.*

2.13 Professional development data-driven, ongoing, job-embedded, and research-based

Professional development planning shows a direct connection to an analysis of student performance data and professional development is on-going, job-embedded, and research-based

- *Planning needs to include opportunities for teachers to learn, implement, reflect on, and modify technology enhanced instructional practices.*

2.14 Evaluations and growth plans effectively used

The school/district effectively uses the staff evaluation and the individual professional growth plan to improve staff proficiency.

- *Teacher evaluations and professional goals needs to include application and evidence of technology skills and integration.*

STANDARD 3: DISTRICT AND SCHOOL CULTURE AND NORMS

The school functions as an effective learning environment by working with families and community groups to remove barriers to learning in an effort to meet the intellectual, social, career and developmental needs of all students.

Note: District staff will make every effort to use a variety of information and communication technologies, when appropriate, to effectively support Standard Indicators.

Indicators

3.1 High expectations for all students evident in beliefs, practices and policies

Evidence of high academic and behavioral expectations for all students in staff beliefs and practices and organizational policies.

- *For example, appropriate academic and behavioral use of all technologies (hardware, software, and communication tools.)*

3.2 Commitment to ensuring successful student transitions (within K-12 and beyond)

School and district staffs work to align expectations across grade levels, programs and systems (P-16) to ensure successful student transitions.

- *Expectations will be available to all schools and district staff and community members in an easily accessible electronic format.*

3.3 Strong commitment to equity and diversity

This school and district provide support for the physical, cultural, socio-economic, and intellectual needs of all students and demonstrate a commitment to equity and an appreciation of diversity.

3.4 Learning environments are safe and drug-free

There is evidence that learning environments are safe and drug-free.

3.5 Systems of student advocacy, guidance and support

Staff members focus on the social and emotional needs of students and there is evidence of strong systems of student advocacy, guidance and support.

3.6 Culture of evidenced-based practice

Teachers and administrators demonstrate a commitment to evidenced-based practices and collaborative processes.

- *Teachers and administrators demonstrate a commitment to evidenced-based practices and collaborative processes, using technology resources when appropriate.*

3.7 Inclusive and collaborative decision-making

Teachers and non-teaching staff are involved in formal and informal decision-making processes regarding teaching, learning, and school improvement.

- *Facilitators should consider appropriate offline and online communication tools (i.e. Blog, Moodle, surveys, video, audio, and text messaging GET THE GIST...) to meet the diverse needs in the decision making process.*

3.8 Culture of continuous professional learning

Teachers and administrators understand and accept their professional role in student success and failure and demonstrate a commitment to continuous professional learning.

- *Teachers and administrators understand and accept their professional role in student success and failure and demonstrate a commitment to continuous professional learning using a variety information and communication technologies to prepare students for the 21st Century.*

3.9 Culture of collective professional accountability
Teachers and administrators are focused on student outcomes and demonstrate a commitment to professional accountability

3.10 Each student has an adult advocate to guide their education planning and career development

STANDARD 4: FAMILY AND COMMUNITY ENGAGEMENT

The district effectively engages families and community groups to remove barriers to learning in an effort to meet the intellectual, social, career and developmental needs of all students.

Note: District staff will take every effort to use a variety of information and communication technologies, when appropriate, to effectively support Standard Indicators.

Indicators

4.1 Families and communities are active partners

Families and communities are active partners in the educational process and school improvement planning and work together with schools and districts to promote programs and services for all students.

4.2 Effective communication strategies

Schools utilize multiple communication strategies and contexts to disseminate information to all stakeholders and communicate regularly with families about individual student progress.

- *(i.e. radio, print media, web, public cable access, blog, print and online surveys, video, audio, text messaging)*

4.3 Families are welcome in the school and their support and assistance are sought

Schools create welcoming environments for parents and their support and assistance are actively sought.

- *Schools create welcoming physical and virtual* environments for parents and their support and assistance are actively sought.*

4.4 Authentic relationships with communities, businesses and higher education

School and district staff members engage in authentic relationships with communities, businesses and institutions of higher education to strengthening the education program and improve student performance.

4.5 Community resources strengthen schools, families and student learning

School/district utilizes community resources to strengthen school programs, families, and student learning.

4.6 Parenting and family skills are promoted and supported

School/district promotes and supports effective parenting and family skills.

STANDARD 5: LEADERSHIP

School and district instructional decisions focus on support for teaching and learning, organizational direction, high performance expectations, creating a learning culture, developing leadership capacity.

Indicators

5.2 Leaders develop and implement a shared vision.

Leaders facilitate the development, articulation, implementation and stewardship of a school or district vision of learning supported by the community.

- *Leaders must be technologically literate.*
- *Leaders must promote and implement the use of appropriate technologies to enhance and support instruction and curriculum leading to high levels of student achievement.*
- *Leaders are responsible for implementing a process to develop, maintain, and monitor a dynamic long-range, and systematic educational technology plan.*

5.3 Leaders foster shared beliefs and a sense of shared leadership and decision-making, community and cooperation

There is evidence that leaders foster shared beliefs and a sense of community and cooperation.

- *Leaders use online technologies to efficiently communicate accurate information to all stakeholders and solicit community input so that all may be involved in shared leadership and decision making.*

5.4 Leaders ensure safe and effective learning environments

Leaders manage the organization, operations, and resources in a way that promotes a safe, efficient, and effective learning environment.

- *Leaders create effective learning environments by facilitating and supporting collaborative technology-enriched learning environments conducive to innovation for improved learning.*
- *Leaders that incorporate technology maintain a safe learning environment by:*
  - *Identifying, communicating, modeling, and enforcing social, legal, and ethical practices to promote responsible use of technology;*
  - *Promoting and enforcing privacy, security, and online safety related to the use of technology; and*
  - *Promoting and enforcing environmentally safe and healthy practices in the use of technology.*

5.5 Leaders are culturally competent

Leaders demonstrate the capacity to work effectively across cultures, value diversity, engage in self-reflection, adapt to the diversity and cultural contexts of the students, families and communities they serve, and support actions which foster equity of opportunity.

- *Leaders can provide access to cost efficient and powerful technology-enhanced communication resources like web streaming, video conferencing, International Internet resources to promote cross-cultural study and communication.*

5.6 Leadership decisions are data-driven

Data on student performance and effective practices are the basis of all leadership decisions.

- *Implement the use of technology to make the student performance and effective practices data collection and evaluation process more effective, efficient, and accurate in order to provide essential information for all leadership decisions.*

5.7 Leaders disaggregate data to monitor the effectiveness of school practices and their impact on diverse student populations

There is evidence that school and district leaders disaggregate data for use in meeting the needs of a diverse population, communicate the information to school staff and incorporate the data systematically into the school's plan.

- *Implement the use of technology to disaggregate data more effectively, efficiently, and accurately in order to monitor the effectiveness of school practices and their impact on diverse student learners provide essential information for all leadership decisions.*

5.8 Leaders provide resources; monitor progress; and remove barriers

Leaders plan and allocate resources, monitor progress, provide organizational infrastructure and remove barriers in order to sustain continuous school improvement.

- *Leaders plan and allocate educational technology resources, monitor the progress of those resources, provide technology infrastructure and remove barriers of technology integration in order to sustain continuous school improvement.*

5.9 Leadership provides sufficient professional development resources and support

Leaders provide the fiscal resources for professional development to improve staff proficiency and use the evaluation process to provide teachers with support to change practices

- *Leaders provide the fiscal resources for professional development and create incentives to ensure that staff take advantage of instructional technology to improve teaching, learning, and student achievement*

STANDARD 6: INTEGRATED SYSTEMS AND STRUCTURES

The district develops, implements, and evaluates a comprehensive improvement plan that communicates a clear purpose, direction, and action plan focused on teaching and learning. The school and district are organized to maximize use of all available resources to support high student and staff performance.

Indicators

Planning

6.2 Collaborative and inclusive planning process

There is evidence that a collaborative process was used to develop the vision, beliefs, mission, and goals that engaged the school community as a community of learners.

- *Use online tools to collect information and opinion from all stakeholders in order to enhance a collaborative process.*

6.3 Improvement planning is data-driven and research-based

The school and district use data on student and school performance for school improvement planning and plans reflect research on effective practices.

- *Implement the use of technology to effectively, efficiently, and accurately base improvement planning on local student and school performance data and access research-based practices.*

6.4 Vertical and horizontal planning for improvement

Staff members promote team planning vertically and horizontally across content areas and programs and grade configurations that is focused on the goals, objectives, and strategies in the improvement plan.

- *Incorporate the use of technology tools, such as online or stand alone curriculum mapping and planning tools, to efficiently and effectively promote team planning vertically and horizontally across content areas, programs, and grade configurations.*

6.5 Clear goals and aligned action steps

The school/district goals for building and strengthening the capacity of the school/district instructional and organizational effectiveness are defined and action steps are closely aligned with goals.

- *Utilize technology tools to organize and tie goals and action steps together.*

6.6 Strategies for evaluating improvement plan and monitoring progress

The school and district evaluates the degree to which it achieves the expected impact on classroom practice and student performance specified in the CIP.

- *Utilize technology tools to track progress and evaluate the degree to which the district achieves the expected impact on classroom practice and student performance specified in the CIP.*

Organizational Structure and Resources

6.7 High-quality data system guides planning, instruction and evaluation

The school and district staff members have access to a high-quality data system that facilitates the identification of student, school and district needs and guides planning, instruction, and evaluation.

6.8 Articulated evaluation process

The district provides a clearly defined and articulated professional evaluation process.

- *Implement the use of technology to make the evaluation process more effective,*

efficient, and accurate in order to expedite the transmission of data to the stakeholders.

6.9 Strategic alignment and utilization of staff, facilities, time, and resources

There is evidence that the school is organized to maximize use of all available resources to support high student and staff performance.

- *There is evidence that the school is using technology to maximize the use of all available resources in an effective, efficient, accurate and to expedite the transmission of data to the stakeholders*

6.10 Student performance goals drive staffing and recruitment decisions

The instructional and non-instructional staff are allocated and organized based upon the learning needs of all students.

- *Use technology tools to measure, analyze, and report student performance and use those results to drive staffing and recruitment decision.*

6.11 Funds allocated based on CIP goals

There is evidence that federal and state funds and resources are integrated and coordinated and distributed based on student needs and goals identified in the CIP and are distributed within and across schools in accordance with school allocation formula.

Appendix D

Alignment

The Oregon Educational Technology Plan is designed to align with the U.S. Department of Education National Educational Technology Plan, Quality Education Model, Information Resources Management Division (IRMD) Strategic Plan, Oregon State Board of Education mission, Superintendent's Goals, NCLB Title II-D Enhancing Education Through Technology, Oregon Education Performance Standard for Educational Technology and the ODE Strategic Framework.

USDE National Education Technology Plan Action Steps
There are seven action items developed by the United States Department of Education, and they are as follows:

- Strengthen Leadership
- Consider Innovative Budgeting
- Improve Teacher Training
- Support E-Learning and Virtual Schools
- Encourage Broadband Access
- Move Toward Digital Content
- Integrate Data Systems

NCLB Title IID: Enhancing Education Through Technology (Ed Tech)
The goals of the *Ed Tech* program are to:

- Improve student academic achievement in English/language arts, mathematics, science, social sciences, the arts and second languages (world languages) through the use of technology.
- Assist every student – regardless of race, ethnicity, income, geographical location, or disability – in becoming technologically literate by the end of eighth grade.
- Integrate technology into curriculum and instruction through high quality professional development based on relevant research.

Quality Education Model
The Quality Education Commission found that the Quality Education Model continues to provide an accurate picture of the costs of a Quality Education for Oregon's students. The Commission also found, however, that the provisions of the Federal NCLB legislation represent a tremendous challenge to creating the programs and providing the funding required to get all students to meet state academic standards. Based on a thorough review of the Quality Education Model and advice from its three broad-based panels, the Commission offers the following recommendations:

TOP PRIORITIES

- To provide State resources to complete an overview of the existing cost and effectiveness of the State's educational data system for grades PK-20, and implement an improved system within the next two years.
- Create a Governance and Accountability taskforce to develop recommendations about how the educational system needs to be structured to provide maximum learning outcomes to students.
- Provide additional resources targeted at the elementary grades, with emphasis on early reading programs.

SECONDARY PRIORITIES

- Continue the expansion of high school restructuring programs in the state.
- Provided targeted staff development to improve the effectiveness of Oregon's teachers in helping students meet state standards.
- Improve the alignment between the K-12 school curriculum and Oregon's postsecondary education and employment needs.
- Continue the line item in the state budget to pay for the highest cost special education students, and look for efficiencies to provide services to these students.

Oregon School Board's Mission Statement
The mission of the State Board of Education is to work in partnership with local school districts, education service districts, community colleges, parents, teachers, administrators and all other concerned citizens to provide educational opportunities that develop skills and knowledge, potential, self-esteem, work force productivity and motivation for lifelong learning.

We endorse and promote the following values in order to achieve this mission:

- High expectations for students, school staffs, parents and communities;
- A clear vision of desired results;
- Strong leadership;
- Teamwork;
- Ethnic and cultural diversity;

- Appropriate staff development;
- Safe, clean, orderly learning environments;
- Accountability;
- Recognition of, and rewards for excellence;
- Community and family participation and support;
- Lifelong learning.

Superintendent's Goals

The Superintendent established six priorities for the Oregon Department of Education:

- Ready For School - Full Day Kindergarten For Title I Schools
- Success For All Students - Closing The Achievement Gap
- Learning To Read/Reading To Learn - Literacy At Every Grade
- School and District Leadership
- Every School A Community School
- Learning For Success - Improving Middle And High Schools

The Oregon Department of Education 2006-2010 Strategic Framework

Vision

"Every student, every day a success."

Quality, Equity, and Accountability

Mission

Our **mission** leads the pre-kindergarten through grade 12 education enterprise to give all Oregon students a valuable, first-rate education.

ODE Goals

Student Success

- School Readiness
- Student Achievement
- Students have a personalized education
- Successful transition to next steps

Quality Schools

- Safe, equitable, and respectful cultures
- Continuous and innovative improvement
- Professional Development

Better Systems

- Appropriate and equitable resources; accountability expectations met
- Excellent customer service
- Implement a regional service delivery system

- Proactive and responsive communications
- Efficient and effective system operations

ODE Core Functions

- Accountability
- Leadership
- Improvement

ODE Core Objectives

1. Communication
   Provide purposeful, effective communication for educators, policy makers, partners, and staff of the Oregon Department of Education.
2. Academic Content Standards
   Establish and promote academic content standards as the foundation for quality teaching and learning.
3. Assessment and Results
   Develop and administer a variety of appropriate assessments aligned with academic content standards and report results in a timely manner.
4. Early Childhood Standards and Assessments
   Establish standards and assessment for early childhood education and establish standards for each school's readiness to support the learning needs of all children.
5. Data-Driven Accountability System
   Facilitate the appropriate and responsible use of data to support improved learning, continuous school improvement and accountability for results.
6. Statewide Integrated Data Management
   Develop a statewide, integrated data system that collects and reports student and financial data understandable to Oregonians.
7. State and Federal Funding
   Administer state and federal funding for education according to law.
8. Enterprise Standards and Performance Measures
   Establish policy, standards and performance measures for district/school improvement in the education enterprise (198 school districts and 20 ESDs).
9. Research and Best Practice
   Identify and disseminate research and best practices and promote their use in districts/schools.
10. Professional Development
    Implement a goal-oriented program of professional development emphasizing best practices for teaching and learning, and the needs of diverse learners, for Oregon educators and staff of the Oregon Department of Education.