Long-Range Plan for Technology 2006-2020

Promote Academic Excellence

Teaching and Learning

All learners:

- **have access to relevant technologies, tools, resources and services for individualized instruction 24/7.**
- **use information and communication technologies to collaborate, construct knowledge and provide solutions to real-world problems.**
- **use research based strategies in all subject areas to improve academic achievement.**
- **communicate effectively in a variety of formats for diverse audiences.**

Educator Preparation and Development

All educators:

- **graduate from an educator preparation program that models current technology in instructional and administrative practices PreK-12.**
- **exit educator preparation programs knowing how to use technology effectively in the teaching and learning process.**
- **develop new learning environments that utilize technology as a flexible tool where learning is collaborative, interactive and customized.**
- **ensure integration of appropriate technology throughout curriculum and instruction.**

Leadership, Administration and Instructional Support

All leaders:

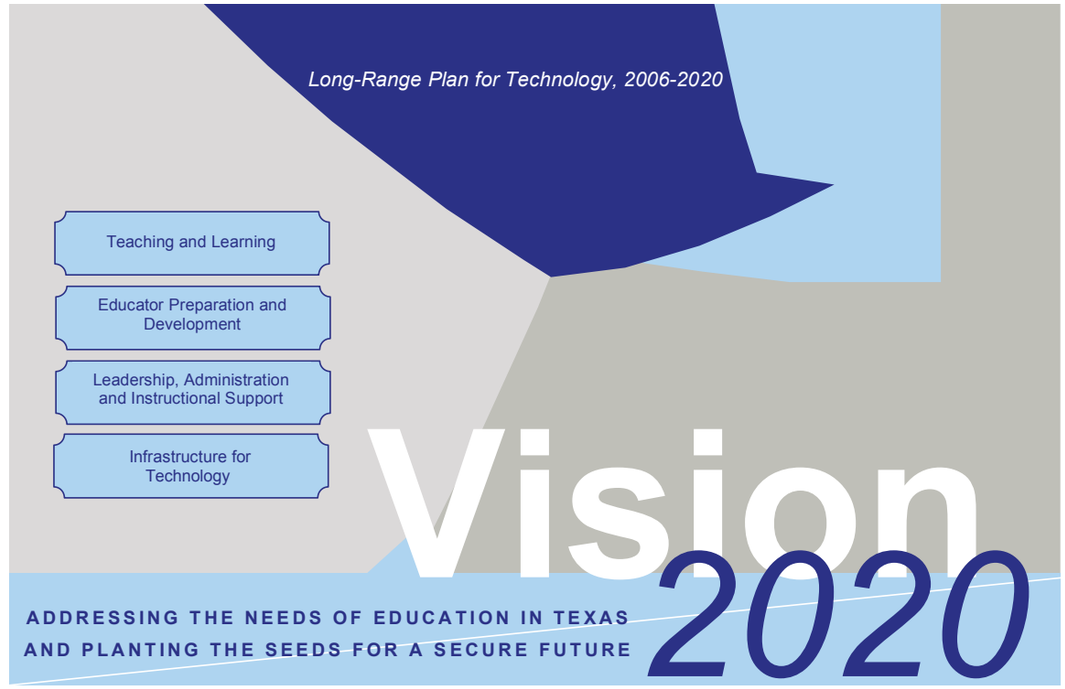
- **develop, implement, budget for and monitor a dynamic technology plan to meet the needs of a changing workforce and economy.**
- **create innovative, flexible and responsive environments to maximize teaching and learning and community involvement.**
- **offer expanded curricular and instructional opportunities to students via online, digital technology, and a variety of distance learning technologies.**
- **provide opportunities for sustained, relevant and timely staff development in a variety of formats.**
- **expect and plan appropriate technology use throughout the teaching and learning process as well as throughout administration.**
- **use data effectively and appropriately in decision making.**

Infrastructure

An infrastructure system provides:

- **access to all e-learning technologies through ubiquitous broadband resources available 24/7 for all users.**
- **just-in-time technical assistance to support teaching and learning.**
- **measures to ensure all data is secure and accurate.**
- **data standards to support interoperability and accessibility for all users.**

The complete *Long-Range Plan for Technology, 2006-2020* can be found at:
http://www.tea.state.tx.us/technology/lrpt/lrpt_lrpt.html



Imagine an education system where……

Students can expect higher performance and deeper engagement in academic, real world endeavors by accessing digital tools and resources available twenty-four hours a day, seven days a week (24/7) appropriate to individual strengths, needs, and learning styles. Students know they will be prepared to thrive in a global workforce with changing economic implications.

Parents can expect not only to participate more directly in their children's education but also to improve their own knowledge as parents and citizens. Communications increase as parents have 24/7 access to learning resources and student information such as achievement, attendance, and discipline.

Educators can expect to access and use student information on demand in order to individualize instruction. The use of digital tools and resources and 24/7 professional development opportunities transform the educators' role in the educational process. Increased communication will enhance collaboration between school, home, and community.

Community and school board members can expect more effective and efficient use of fiscal resources and human capital. Increased communication and participation in the educational decision-making process is enhanced through the use of anytime, anywhere digital tools and resources.

In order to have this educational system, Texas must consider extending the traditional boundaries of the school year, scholastic age, and geographic location, and the state must provide both the technology and human infrastructure to facilitate, support and maintain this transformation. With the convergence of a variety of technologies, this vision is possible in more ways than once imagined. The teaching and learning process must be receptive to a wide variety of options, including expansion of learning extended into the home and into the broader community, development of virtual relationships among learners, and learning through online and other distributed learning environments.

Technology Proficiencies

All professional educators (including teachers, administrators, and librarians) must master the State Board for Educator Certification (SBEC) Technology Applications standards, which are currently mandated for all beginning teachers. Teachers must first have access to technology, quality professional development, and time to implement new strategies in their classroom. These steps are essential to reaching this goal. Students beginning in kindergarten must master the state Technology Applications Texas Essential Knowledge and Skills (TEKS) and demonstrate that they are technology literate with the needed proficiencies to acquire information, solve problems, and communicate using technology.

The TEKS for all core content and enrichment areas must reflect the educational and employment needs of the 21st Century. Information and communication literacy skills must be fully integrated into core content instruction. High stakes testing must reflect the skill sets needed to function in a global, information age economy.

Professional Development

To provide a 21st Century education to students, professional development opportunities must be provided to ensure that educators have the Technology Applications skills identified by the SBEC Technology Applications Standards, especially those skills that support lesson planning, classroom management, and administrative tasks. Professional development opportunities for educators must be available 24/7 to all educators through a variety of delivery methods, including online and other distance learning technologies.

Texas has many teachers who are very comfortable with technology and use it regularly in their classrooms. Most others are willing to learn but have had limited access to technology and limited time for professional development to develop their skills and sufficient exposure to the effective use of technology. To meet the needs of Texas students and prepare them for success in the 21st Century, Texas must devote significant time and resources to the adequate preparation of and ongoing professional development for all teachers. A comprehensive professional development initiative is imperative. With sustained leadership and support, this initiative can move teachers from Early or Developing Tech on the Teacher STaR Chart to Advanced or Target Tech. This initiative should be responsive to the needs of teachers by providing content-focused strategies and technology tools appropriate for each subject area and grade level.

Technology Planning and Resources

Technology is an integral part of the planning process at all levels. Sufficient technical support to provide anytime, anywhere digital tools and resources is critical to meeting the needs of the 21st Century educational system. Budget and funding must be provided at a level that will ensure the effective implementation of the technology plan. Budgeting considerations will acknowledge total cost of ownership and sustainability requirements.

The educational system must be equipped with ample digital tools and resources for all learners. Quality, affordable, universal broadband access must be made available to all, including those with disabilities. A web portal should be provided for Texas educators, students, and parents to address the needs of individual learners. Resources provided in the portal should maximize the use of 21st Century tools for learning. Secure, accurate data must be available for decision-making at all levels. A collaborative education network connecting schools, colleges, medical facilities, libraries, businesses, and homes must support the education system of the 21st Century.

Expectations of Plan

The vision of this new plan is ambitious. Charting the course for educational technology through 2020 requires systematic planning and step-by-step strategies implemented over time to make the vision a reality. The Texas education system is built upon a commitment to excellence and equity, providing a quality education to all students. Rigorous curriculum standards, quality instructional materials, and comprehensive student assessments provide the framework for ensuring student success. Visionary school leaders and well-prepared teachers build upon that framework to provide opportunities for students to reach their full potential.

To reach the goals of this Long-Range Plan for Technology, 2006-2020, strategies must be put in place that can be accomplished and measured over time. The recommendations for Teaching and Learning; Educator Preparation and Development; Leadership, Administration and Instructional Support; and Infrastructure for Technology implemented together will help realize the overarching vision of the plan by 2020.

Phase I 2006-2010

- Continue to refine and align curriculum content standards to reflect current research and meet the needs of the 21st Century workplace and higher education
- Continue to provide quality instructional materials, aligned to content standards and delivered in print and digital formats to meet the needs of all students
- Continue to align assessment instruments to content standards and measure student progress
- Provide equitable access to technology tools for students and teachers, such as student and teacher workstations, productivity tools, online resources, interactive whiteboards, projection systems, and printers
- Provide on-going quality professional development for educators to ensure proficiency in using technology tools to personalize instruction and in using data effectively to inform instructional practice
- Provide opportunities for teachers to implement new strategies for enhancing teaching and learning through the use of quality instructional resources and technology tools
- Provide adequate connectivity in schools and classrooms to ensure effective use of technology resources
- Provide necessary technical support to ensure availability and reliability of technology resources
- Increase the Technology Allotment to at least $50 per student per year and fund from the Telecommunications Infrastructure Fund

Technology planning is an on-going process that requires frequent review and revision. Strategies for Phases II and III of the plan should be developed to reflect progress in Phase I and as changes in education and technologies warrant.

Phase II 2011-2015 **Phase III 2016-2020**