

Amphitheater Public Schools

2014-2017 Technology Plan

Current Reality and Needs Section

Student Learning – Current Reality

The Local Education Agency (LEA) has concentrated on creating the infrastructure over the past few years to create a stable and robust network within each school site. This network backbone creates fundamental ground work for student learning to take place. The wiring of each classroom creates a 1000 Mb/s connection to a centrally located switch room for each computer. The classrooms also have wires run to the ceiling area in preparation for wireless access points to be installed.

Refreshing the computers throughout the district to upgrade from Windows XP to Windows 7 has been another major focus. By April 2014, the LEA will be upgraded to Windows 7 with legacy computers removed from the network. This initiative creates a more stable environment with all the computers in the district upgraded to a current operating system, but created holes in student access as computers unable to be upgraded to Windows 7 were removed from the network.

Now that the building sites and computer upgrades are nearing completion, the focus of the LEA is towards computer access in each building. The introduction of two major curriculum adoptions (Math and Language Arts) has created new demands on access to online resources. The demands of the online resources has increased the overall usage of technology, but has created a stress on access for other content areas as teachers compete for computer labs.

The LEA has a good awareness of implementing 21st Century skills (communication, collaboration, critical thinking and creativity) through the use of technology in the classroom. This awareness creates a need to provide more access within the classroom and building environments. The introduction of online-based assessments has also created a need for student skills to be assessed and more formally developed. The need for keyboard awareness and computer navigational skills has increased and is needed in the lower grades. Along with systematically developing 21st Century skills the need for a specific curriculum of technology skills needed at each grade level has become essential.

With the increased access to mobile devices in the home environment, the need for wireless access is increasing and has the potential to impact student learning as the LEA researches “Bring-Your-Own-Device” (BYOD) policies and other possible ways of getting more tools into the students’ hands. With tight financial situations, the LEA is looking to impact the educational environment in the most cost-effective and efficient way.

- Need to increase student access to devices to access online resources
- Need to increase access to labs for all content areas.
- Need to promote lessons enhancements and teaching strategies to incorporate 21st Century skills as tools to use within the classroom.

- Need to increase student classroom computers for elementary and laptops on wheels for middle school and high school
- Need to create scope and sequence of student technology skills
- Need to provide exposure to computers for preparation of online assessments in grades K-2
- Need to educate all audiences on the use, etiquette, ethics, and safety involving the Internet.

Leadership – Current Reality

The LEA is comprised of 21 school entities under the leadership of the principals at each site. As technology evolves and as the public is exposed to more devices and tools, the need for training and support of the building leader has become essential. The vision of the district needs to be communicated throughout the district with an awareness of individual school needs and funding sources.

Technology integrations into the classroom along with the ever-increasing technology skill set it takes to be a teacher creates a need to better evaluate the skill set of the teacher and criteria to evaluate technology integrated into the classroom.

Student management systems are critical to the functioning of a school. The Tyler SIS system has many components to assist and complement the role of the building leader. The LEA needs to continually update the leadership on new features and to better utilize the features of the system. The LEA will research the need to become more efficient and effective when accessing student data and documenting student information.

Each individual school has a technology specialist and technology coach to assist in the support of the technology and integrations of technology in the classroom. As the district continues to focus on the implementation of the 21st Century skills into the classroom and the gradual expansion of technology devices, the need for highly trained technology specialists and 21st Century skill technology coach leaders is essential. As online assessment becomes a part of the school year, the demands on the school to have a seamless integrations of technology to students is critical.

Funding constraints and pressures on individual school budgets creates a digital divide within our district. The building leadership along with the district leadership need to research new funding sources and creatively utilize the current resources to sustain existing technology initiatives and support appropriate refresh/updates of existing technologies. The partnership with the Amphi Foundation creates an excellent source to facilitate this issue.

The LEA is in the process of evaluating the current policies and standards as to what are district-provided technology resources and what are site-provided technology resources. The district needs to evaluate the current district-provided resource guidelines to modify them to meet the ever-changing technology specifications and technology demands to educate the students.

- Need to train and support building principals as technology leaders in their schools.

- Need to communicate technology vision, standards, and focus throughout the district to unify buildings and local visions.
- Need highly trained technology specialists and 21st Century leaders in the technology coach position
- Need qualified technological people in the assessment process.
- Need to update leadership on effective use of features of Tyler SIS and introduce new features
- Need to research ways to help leadership to become more effective and efficient when accessing student data and documenting student data.
- Need to research new funding sources and creatively utilize existing resources.
- Need to evaluate the current district-provided resource guidelines and standards.
- Need to create safe schools that are conducive to learning.
- Need to provide safe and appropriate internet access through the district firewall that is compliant with CIPA procedures

Preparation and Development of Educators – Current Reality

As technology evolves the area of professional development continues to evolve. The demands on teachers' time and energy along with the ever-changing educational technology environment, creates areas of stress and frustration. Due to the fact that change is a constant in the educational technology world, professional development must anticipate, adapt and adjust in order to meet today's needs.

The LEA recognizes the need for teachers to collaborate and have time to be professionally challenged. The district's early release days provide regularly time to meet for professional growth. Another resource is the implementation of an intranet site where electronic collaboration and file sharing can take place within the security of the school's network. As the intranet grows, the district looks to have collaborative learning environments across school buildings and within school buildings.

With the assistance of the Director of Instructional Technology, the district is looking to improve the process of establishing a district-wide training curriculum. The LEA wants to focus on having the training sessions differentiated, curriculum-specific, site-based and skill-appropriate. Several key areas of focus will be to provide training to administrators and teachers in regards to evaluation of classroom instructions and classroom instructional strategies.

The LEA will continue to provide training in 21st Century skill integration for teachers to incorporate communication, collaboration, critical thinking and creativity into the classroom of a digital-learner. The model of distributing the skills needed to be a 21st Century teacher will be to improve the technology coach program and help the technology coaches and other educational leaders in the building disseminate new classroom strategies utilizing the tools of technology to impact the classroom. Another area of emphasis as the LEA focuses on 21st Century skills integration, is creating training regarding classroom management and lesson development along with instructional theory to meet the needs of 24/7 learning and a more personalized learning environment with a Bring-Your-Own-Device model.

All effective preparation and development programs must collect the information to establish a training plan from many sources. The district uses exit surveys after training, needs assessment surveys and leadership focus and recommendations to establish a district training plan. Related to the training plan, the LEA needs to look at the proficiency of the technical skill by all employees. The need to establish baseline skills for positions throughout the LEA and the need to be able to assess these baseline skills is important to the organization.

The LEA needs to research and develop new avenues of delivering professional development and skill improvement courses. The emergence of online courses, web sites designed for skill improvement and other resources need to be evaluated to see how they can help equip employees meet the needs of the position now and into the future.

- Need to create collaborative learning environments between stakeholders of common interest or common curriculum needs. (Intranet)
- Need to prepare administrators and district professional development personnel to conduct consistent observations of classroom use of technology.
- Need to enhance the effectiveness of instructional coaches and mentors to support technology integration.
- Need 21st Century skill integration for teachers to incorporate communication, collaboration, critical thinking and creative into the digital-learning classroom.
- Need to provide site-based, curriculum-specific, skill-appropriate level trainings to meet the diverse needs of the staff. Need differentiated training opportunities
- Need to provide online staff development opportunities (content management courses)
- Need more training opportunities based on teacher-generated input
- Need to expand on assessing the needs of the district
- Need to create incentives and accountability in training program to insure district-wide adoption/coverage
- Need to include training plan when software/programs are upgraded or introduced.
- Need training regarding classroom management/lesson development and instructional theory before any BYOD implementation
- Need district-wide minimum skill requirement policy

Infrastructure – Current Reality

The infrastructure continues to grow and develop as the needs of the district increase. Current renovations to the infrastructure of the buildings are nearing the final stages. Each building will be equipped with nine category- 6 wiring drops to each classroom, with one drop designed for future wireless expansion.

Additionally, the migration of the phone system to IP telephony nears completion. This initiative updates the district's phone system to a level that will meet the needs of the district for 10-15 years. Just as important, this initiative allows the LEA to expand the microwave wide area network to provide more bandwidth to the buildings as segmented bandwidth will not need to be protected. The district is

continually monitoring and analyzing the bandwidth usage to best use district funds to effectively provide for the educational needs of the students and staff.

The district will continue to evaluate the need for additional wireless access points throughout the district and will continue to evaluate the usage demands of the buildings. The LEA will continue to provide support and bandwidth to meet the increased use of devices throughout the district.

The LEA will continue to evaluate the current support plan and adjust it as new technology needs are identified. The current demands on the repair technicians and building technology specialists continues to increase with more building level support needed to increase response time to meet the ongoing need for software updates and security updates. The district will need to identify a core skill set needed for each area of support and insure the support staff is qualified to meet the ever-changing environment.

The district will continue to monitor, evaluate and research the new resources available through cloud-computing. New resources and processes are evolving and the district will work to be prepared to meet these needs.

Bring-Your-Own-Device (BYOD) continues to be an area of research for the LEA. The policies relating to the use of personal devices on the network will need to be developed. The district will continue to research and plan for the increased demands on the bandwidth and wireless network to accommodate this option.

- Need to develop and implement new strategies and practices for funding, purchasing and supporting technology infrastructure and services
- Need to develop/maintain the internal wide area network to provide connections at 1 Gb/s per 1,000 students within the next five years.
- Need to utilize technologies that can be used to ensure the safety of students (i.e. surveillance and emergency warning systems)
- Need to expand wireless network coverage to meet the potential need of BYOD
- Need to increase the bandwidth to individual school sites
- Need to increase the bandwidth from the district to the Internet Service Provider
- Need to create policies to support potential BYOD initiative
- Need to create guest network to support potential BYOD initiative