CROWLEY
INFORMATION | TECHNOLOGY RESOURCES

Technology Audit – 2008 vs 2016

In 2008, The Renaissance Institute performed an audit an assessment of Crowley ISD's technology program. The objective of the audit was to broadly assess how technology is impacting learning, teaching, and business processes in CISD.   The 2008 report noted deficiencies in classroom technology, network infrastructure, security & compliance, staffing & staff development, and evaluation of the impact of teaching and learning. This is a "then and now" comparison on the issues noted, and what has been accomplished for our stakeholders.

2008-2009	2016-2017
Classroom Technology	

No classroom standard for equipment.
 *Desktop Computers
 *Chalkboards
 *Overhead projectors in most classes.
 *Large disparity in Projection- Most classes with no projection.
 *Computer lab disparity with equipment and software. (No district plan)
 *Pentamation - eSchool Gradebook and Finance software platform.
 *Windows XP and MS Office 2002.
 *No "Learning Management System" or digital content or resources.
	Minimum Technology Standard for each classroom.
	 *Laptop *Docking Station
	 *Speaker System *Mounted Projector
	 *Document Camera *Whiteboards
	 *Mobile Device for every K-12 Teacher
	 *Student Devices
	    -Laptops 1:1 (7th – 12th = 7,050)
	    -iPads classroom sets of 15 (K-6 = 5,040)
	 *Mobile Device Management/Monitor Tools for assessed usage.
	 *Skyward Student Information System and HR/Finance System platform.
	 *Updated computer labs at both High Schools and 8 new CTE Labs (Apple and Windows platforms)
	 *Windows 10 and MS Office 16 (365) platforms.
	 *Blackboard Learning Management system for all faculty, staff, and students.
	 *Office 365 accounts for all students with email and collaboration ability.
	 *Hosted Electronic Textbook Licensing Management system housing over 200 textbooks and open source documents.
	 *Adobe compliant software agreement for all students and faculty.
	 ****Coming in Spring – Google Accounts for all students. Proof of Concept planned for April launch.

Network Infrastructure	
*"End of Life" non-supported network equipment – 3COM and Cisco *No wireless access for devices or laptops. *"End of Life" non-supported telecommunication infrastructure system. *AT&T provided 1GB network to campuses. *200MB Internet Connection -shared by campuses. *Inconsistent network "uptime" *No dedicated network maintenance window. *No "Disaster Recovery" or "Backup" plan in place. *No Virtual Server environment.	*Fiber connection to each campus – CHS/NCHS 10GB – All others minimum of 1GB *Redundant connections to maintain consistency of "up time" for network. *Private fiber for five (5) campuses. *Upgraded 1GB Network Infrastructure equipment. *Wireless access point in every classroom. *Upgraded SIP compliant Telecommunications infrastructure system. *Dedicated maintenance window on Wednesday evenings. *Duplicated "fail over" 1GB x 2 Internet Connections compliant to 21st Century benchmarks. *Creation of "Back Up" and "Disaster Recovery" plan with offsite back up as well as power generation upon power failure. *Virtualization of Server environment eliminating down time due to hardware failure and also power savings.
Security/Compliance	
*Severe lack of security for network. *No CIPA compliant specific equipment. *Gap in acceptable use policies for faculty, staff, and students.	*CIPA Compliant firewall and dedicated content filter installed. *Upgrade security systems to insure viability of network. *Network Security Analyst hired for district. *Improved Administrative Regulations for faculty and staff. -Password policies -Inventory control -Development of inventory by position. *Improved acceptable use for Students through sign-on process and monitoring software. *Dept. of Homeland Security – Technology Security Assessment/Audit in Spring 2017.

Staffing/Staff Development	

*No faculty/staff support structure for assistance with technology.
*Not enough technology training for existing Technology staff.
*Not enough technology staff for existing number of faculty, staff and students.
*No existing training plan for faculty, staff and students.
*Large gap in leadership and vision for the role of technology in teaching and learning.
	*Creation of Solutions Desk for assistance for faculty/staff.
	*Increase support staff to accommodate campus and device increase amounts. – over 20,000 devices for more than 17,000 users.
	   -4 Campus Technicians
	   -1 1:1 Technician
	   -2 Analyst positions – Operational Technology & Data PEIMS.
	   -Creation of Instructional Technology Services – Coordinator & 6 Campus Instructional Technologist.
	*Increased Technology Services staff training expectation to minimum of 6 hours per year. (Content specific, Campus Specific, and New Technologies)
	*Dell / Apple Certified Educator programs added. 6-month job embedded training program.
	*Curriculum and Instruction Coordinators collaboration with Campus Instructional Technologist for PLC's.
	*Professional Development (CTL) collaboration for LEAP, NTO, and other district led trainings.
	*Introducing in Spring 2017 Google Certified Educator Levels 1 and 2. (April)
	*Creation of STUDENT facilitated professional development and mentoring.
	   -SWAT (Student Who Advance Technology)

Evaluation Process	
*No process for evaluation of the impact of technology on teaching and learning process.	*Technology Advisory Committee – Teachers, Central Administration, Campus Administration, Technology Services. *Proactive monitoring through Power BI dashboards utilizing SCCM, Meraki and Heat data. *Operational Surveys completed annually. *Classroom Walkthrough developed for implementation at the Campus Administration level.
Procurement	
*A lack of processes for identifying, procuring, and managing technology products.	*Implementation of WASP inventory control program. *Implementation of SCCM, Meraki, and Heat for electronic collection of data. *Administrative Regulation requiring Technology Services approval of purchases. *Mobile Device Management software (Meraki and Heat)

Conclusion
Auditors: Crowley ISD has implemented all the changes recommended in the 2008 report by *The Renaissance Institute* and has improved on many of our recommendations. They should be commended for implementing a modern learning environment. Considering new technology and practices since the 2008 report, the district should focus on the following continuous improvements. 1. Expand the Learning Management System as the primary source of instructional content. 2. Implement additional Open Educational (free) Resources aligned to district instructional objectives to increase access and decrease spending on textbooks. 3. Implement flexible learning spaces to fully maximize the impact of computer-mediated learning. 4. Implement a purely online option—A Virtual Campus—for students. 5. Continue to innovate in terms of emerging technology and predictive analytics tools.

Technology Advisory Committee Recommendations

Technology Advisory Committee:

The Crowley ISD Technology Advisory Committee discussed the following items that require attention and purposeful planning. Below is an exert from our latest TAC Meeting 2/22/2017 that began the process of developing our Technology Plan for the 2018-20 school years. The items below noted **as 1) program review, 2) new initiative, or 3) expansion** of an existing necessary program.

Teacher Technology: (promoting digital literacy)

- **(Expansion)** Administration would like an updated catalog of core training that Instructional Technology can provide during non-District PD days.
    - o Teacher training on how to use FOR class – Training for non-apple and non-dell cohorts. (FOR vs. IN class training)
    - o Creation of short videos of exemplar technology classrooms for Administration to use in training their staff.
- **(Program review)** - iPads for Teachers – Necessary? If not, collect and move to Elementary to increase student devices by 100 per campus.
- **(Program review/Expansion)** Elementary participation in Dell Training, Secondary participation in Apple Vanguard.
- (**New Initiative)** Creation of district/campus expectation for required number of hours of technology training.
- **(Expansion)** A repository of exemplar lessons utilizing technology by grade and content within Blackboard.
- **(New Initiative)** Google Certified Educator Level 1 and 2 trainings.

Student Technology: (connecting the learner)

- **(Expansion)** More devices needed at the Elementary and Intermediate level. Currently @ 12 or more per class.
- **(Expansion)** Student Training availability. (Training by students (CTE) for other students and faculty as well.)
- **(Expanded/New Initiative)** iPad vs. Windows Laptop vs. Chromebook – Chromebook trial in beta now with STEM Academy at Sue Crouch Intermediate.
- **(New Initiative)** Google Accounts for all students.

Engagement: (Leveling the playing field)

- **(New Initiative)** Classroom Settings – changing the way the classroom looks and feels. (I.E… no more desk)
- **(Expanded)** Expansion of LMS for elementary students.
- **(Expanded)** Additional modules for secondary LMS, Blackboard. Turnitin.com (plagiarism protection)

These items developed by the CISD TAC, in conjunction with the external auditors, will drive our development of our Technology Plan for the 2018 -20 school years, as well as any course correction to the existing Technology Plan for 2015-18 school years.

Additional Items to Consider

* Wearable technology possibilities for Fitness Gram data collection.
* Predictive analytics for catastrophic and non-catastrophic events of students.
* Internet of Things – adding artificial intelligence to classroom for assisting teachers with assessment of student levels of learning.
* Curating textbooks through CK-12 (Open Educational Resources/Creative Commons) to provide continuity, ownership, and alignment to scope and sequence of current curriculum.
*Continued enhancements and necessary upgrades to the network infrastructure that will impact teaching and learning.
*Continued growth of Student facilitated Professional Development for Teachers.
*Continued growth of Student facilitated device repair and resolution program with CTE courses.