Capistrano Unified School District

Technology Plan

2019-2022

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### Abstract

The modern classroom is often defined by the technology in the classroom. The District technology plan focuses on the students and the modern learning environment in Capistrano Unified School District. The classroom is what affects our students every day and is the most visible part of the District. The Technology Plan, in alignment with the District vision, mission, and Wildly Important Goals (WIGs) will define the District vision of the modern classroom and learning environment that we wish our students to experience daily. The modern classroom is one in which participants use technology efficiently and ethically, with safe and connected devices, is connected to the community, and supports innovative and differentiated instruction. This vision of the modern classroom is operationalized through the following tech plan goals.

### **GOALS**

Efficie	ent and Ethical Technology Use
	Goal 1: Continue to support students by teaching digital literacy in our curriculum
	Goal 2: Support a culture of ethical digital citizens
Safe a	nd Connected Devices
	Goal 3: Maintain the District chromebook program
	Goal 4: Support innovative and safe learning environments
Conne	ected to Community
	Goal 5: Continued support and advancement of district communication media
Suppo	rt Innovative and Differentiated Instruction
	Goal 6: Support access and use of research-based digital learning programs in support of a comprehensive Multi-Tiered System of Supports (MTSS)
	Goal 7: Update and implement the model of innovative classrooms
	Goal 8: Support student learning spaces to foster innovation, creativity, engineering, and design

### Introduction

### **HISTORY**

Since 2015, the technology landscape in Capistrano Unified School District (CUSD) has changed drastically. The increase in educational and administrative technology devices has created a greater demand for training, and network and technical support in CUSD. The increased use of technology has increased the availability and use of data in the student information system and greatly changed the look of classrooms. The technology plan of 2015, supported by the Technology and Information Services (TIS) department, was a guiding document that drove many of the efforts of CUSD as a whole. Here are a few accomplishments highlighted from the 2015 technology plan. Since 2015, CUSD has added or completed the following.

- Increased from 35,000 devices to 52,000 devices (50% increase) due, in large part, to the Chromebook program
- Chromebooks in every classroom in fourth and fifth grade as well as every middle school math and english class
- 21 chromebook carts at each high school
- Three successful years of CAASPP testing on chromebooks
- Largest CommonSense digital citizenship certified school district with 100% school certification
- Digital literacy and Digital Citizenship to the elementary school report card in kindergarten through fifth grade
- Cisco networking academy at San Clemente High School
- Participated in the hour of code at all elementary schools
- Trained all departments and sites in Google suite of productivity tools
- Adopted and trained in a more robust and reliable mass messaging system for more clear communication with our community
- CUSD phone system transfer from traditional analog phones to 4239 Voice Over Internet Protocol (VOIP) phones completed
- Microsoft Outlook migrated from on-premise email to cloud-based Office-365 email
- Adopted a new business system to manage human resources, payroll, and purchasing
- Replaced every printer and copier in the district
- Achieved and maintained a 99% network uptime
- Refreshed teacher and administrator computers for three years
- Resolved 78,365 technology support (RADAR) tickets
- Transitioned Aeries, student information database system, to web-based system
- Reported over 80% of families on parent portal
- Virtualized computer resources for increase in efficiency, reduction of cost, and reduced carbon footprint
- Changed network topology to a mesh network to increase network resiliency
- Complete revamp of the district website and supported/trained all sites and departments with a complete refresh of thousands of web pages

With the milestones achieved, technology now touches every aspect of staff and student life in Capistrano Unified School District. Textbooks are enhanced with online content and learning tools.

Learning interventions are managed by teachers with the help of digital learning programs. District-wide communication takes place over the district network. It is currently impossible to exist in a classroom, office, or department in Capistrano Unified School District without a connection to the network or the services provided by technology.

What is the direction of CUSD technology integration? This document serves as a guiding document for how CUSD will proceed for the next three years in technology.

### **Stakeholders**

The 2018 Technology Plan, though authored in Technology and Information Services, was generated by feedback from a varied group of stakeholders. Students, parents, and employees provided feedback on the direction of technology in Capistrano Unified. Almost everything in this plan is an extension of work that has already been started and vetted through various sites, committees, and departments in the last year. Below is a list of groups who provided feedback specifically to the wording of this plan.

- ASB executive counsel
- LCAP committee
- District Instructional Leadership Team
- ANHS
- Del Obispo
- Ladera Ranch Middle School
- Technology Advisory Committee (representing teachers and principals from all grade levels)
- All school principals

### **Technology Plan Goals**

The vision of Capistrano Unified is an unwavering commitment to student success. Our mission is to prepare students to meet the challenges of a rapidly changing world. We do this by focusing on our Wildly Important Goals (WIGs):

WIG I: Teaching and Learning - Engage students in meaningful, challenging, and innovative educational experiences to increase post-secondary options for all students.

WIG II: Communication - Communicate with, and engage students, parents, employees, and community members in District-wide and community-specific decisions.

WIG III: Facilities - Optimize facilities and learning environments for all students.

Most technology components and processes reside in a hidden space, known in IT as the "back-end." To bring these vital back-end components and processes to the forefront, the technology plan will focus on the modern classroom. The vision of the modern classroom is a learning environment that includes efficient and ethical technology use, safe and connected devices, is connected to the community, and supports innovative and differentiated instruction.

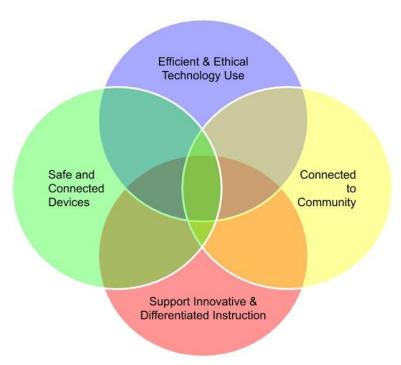


Figure 1: The modern classroom contains all components and resides in the center of the Venn diagram.

The components of the modern classroom center on improving the environment for teaching and learning (WIG #1), increasing communication and connectivity (WIG #2), and optimizing facilities for learning (WIG #3). Not only do the goals and action items of the technology plan support the district WIGs, it shows how this work can be seen by our students, parents, and community. Focusing on the modern classroom will highlight how each of the goals of the technology plan affects EVERY child, EVERY day.

### **EFFICIENT AND ETHICAL TECHNOLOGY USE**

It is not enough to have technology in the classroom, it must be used. Students and teachers are both consumers and producers of the information in the modern classroom. To do this, students and teachers must be digitally literate. Digital literacy is the combination of information literacy and digital citizenship. "Information literacy is a set of abilities requiring individuals to 'recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (American Library Association). "Digital citizenship is the norms of appropriate, responsible technology use" (digitalcitizenship.net).

### Goal 1: Continue to support students by teaching digital literacy in our curriculum

Educational Technology can be utilized to differentiate instruction to reach all learners, to cross language barriers, and to engage students in ways that accelerate classroom teaching. Since the No Child Left Behind (NCLB) act of 2002, technology has been a part of the learning standards. In 2002, NCLB stated that by 2008, "every student would be digitally literate by the time he or she finished eighth grade." The Common Core State Standards more clearly defined digital literacy as skills. Starting in kindergarten, technology was embedded in curricular standards for writing, reading, and speaking and listening. The District has continued to support the integration of technology in the curriculum through access to quality materials and by supporting the adoption of technology marks on the elementary report card. Currently, the elementary report cards all have scores for digital literacy. The following marks for digital literacy were taken from the third grade report card for example:

Writing	
With support	ort, uses digital tools to produce and publish writing, demonstrating grade level
keyboardir	g skills
Digital Literacy	
Uses digita	l tools to create, collaborate, and present ideas and information
☐ Gathers, ev	raluates, and cites information from digital sources
Digital Citizenship	
Demonstra	tes respectful and responsible use of technology

These marks are evaluated using provided rubrics for teachers. All of the rubrics have been created for teachers based on the CUSD adopted scope and sequence for technology skills that were based on the California State Standards and skills necessary for completing the online state standardized CAASPP test.

Sk	lis	,		_		
Wri	ting - Rubric Grade	STD		1st	2nd	3rd
	support, explore a variety of digital tools to produce and publiconstrating grade level keyboarding skills.	sh writir	ng,			
WR	Create a series of slides and organize them. Format and add text on a slide.	W3.6	R			
WR	Use menu/tool bar functionality including font/size/style/line spacing/margins.	W 3.6	R			
WR	Proofread and edit writing, using appropriate online resources (e.g. dictionary, spell checker, grammar, and thesaurus).	L3.4C	R			
WR	Produce and publish writing online.	W3.6	R			
WR	Create projects that use text and various forms of graphics, audio and video, (with citations) to communicate ideas.	RL 3.7	R			
Dig	ital Citizenship - Effort	STD		1st	2nd	310
Den	nonstrate respectful and responsible use of technology.					
DC	Explain and demonstrate compliance with classroom and school rules (Acceptable Use Policy) regarding responsible use of computers and networks.	DC	М			
DC	Explain responsible uses of technology and digital information; describe possible consequences of inappropriate use.	DC	м			
	Explain the responsibilities of a good digital citizen.	DC	М			
DC						
DC DC	Identify cyberbullying and describe strategies to deal with it.	DC	R			

bmhardos: 8/14/2017 Report Card Technology Skills by Grade

DL = Digital Literacy DC = Digital Citizenship WR = Writing IL= Informational Literacy

**B	Before grading, consider:
* I = Introduction	n: Student is learning and won't be assessed
*R=Reinforcing:	Student can do it with support.
*M=Mastery: St	tudent can do it without direction.
* S=Superior: S	tudent teaches others.

Figure 2: Third grade rubric for report card marks in digital skills, part 1

				3rd	Grade	Tech
Dig	ital Literacy	STD	**	1st	2nd	3rd
Use	digital tools to create, collaborate, and present ideas and information.					
DL	Work collaboratively online, with other students, under teacher supervision to create and communicate.	W3.5	R			
DL	Use a variety of age-appropriate technologies (e.g. drawing and presentation software) to communicate/exchange ideas.	W3.6	R			
DL	Appropriately uses and cites resources curated from online sources and media collections for a purpose.	RI3.5	М			
DL	Copy/paste and import graphics; change size and position on slides and documents.	SBAC	1			
DL	Watch online videos and use play, pause, rewind and forward buttons while taking notes.	SBAC	М			
DL	Use skills below to touch type 15 WPM.	W3.6	15			
DL	Use the left and right hand placement /proper posture at the keyboard.	W3.6 SBAC	R			
DL	Correct hand is used for Space Bar, Enter Key, Shift Key.	W3.6 SBAC	R			
DL	Identify and explain terms and concepts related to spreadsheets (i.e. cell, column, row, values, labels, chart, graph).	SBAC MD std 3 5.G	1			
DL	Create, enter and edit data in spreadsheets, and perform calculations using formulas.	MD SBAC	1			
DL	Use math symbols on spreadsheets to calculate answers: + add, - minus, * multiply, / divide, ^ exponent.	MD SBAC	1			
		SUNC	_			
	ther, evaluate, and cite information from digital sources.					
Gat IL		RI3.6	R			
IL	ther, evaluate, and cite information from digital sources.  Identify purpose of a media message: to inform, persuade or entertain.  Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of	RI3.6	R			
IL IL	ther, evaluate, and cite information from digital sources.  Identify purpose of a media message: to inform, persuade or entertain.  Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.  Use appropriate technology to locate, collect, and organize content from	RI3.6	R			
IL IL	ther, evaluate, and cite information from digital sources.  Identify purpose of a media message: to inform, persuade or entertain.  Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.  Use appropriate technology to locate, collect, and organize content from media collection for a purpose, citing sources.	RI3.6 RL3.7 RL3.7 W3.	R R			
IL IL	ther, evaluate, and cite information from digital sources.  Identify purpose of a media message: to inform, persuade or entertain.  Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.  Use appropriate technology to locate, collect, and organize content from media collection for a purpose, citing sources.  Perform basic searches on databases to locate information.  Evaluate teacher-selected or self-selected Internet resources in terms of	RI3.6 RL3.7 RL3.7 W3. 7,8,9	R R M			
	ther, evaluate, and cite information from digital sources.  Identify purpose of a media message: to inform, persuade or entertain.  Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.  Use appropriate technology to locate, collect, and organize content from media collection for a purpose, citing sources.  Perform basic searches on databases to locate information.  Evaluate teacher-selected or self-selected Internet resources in terms of their usefulness and validity for research.	RI3.6 RL3.7 RL3.7 W3. 7,8,9 RI3.5	R R M			
	ther, evaluate, and cite information from digital sources.  Identify purpose of a media message: to inform, persuade or entertain.  Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.  Use appropriate technology to locate, collect, and organize content from media collection for a purpose, citing sources.  Perform basic searches on databases to locate information.  Evaluate teacher-selected or self-selected Internet resources in terms of their usefulness and validity for research.  Present research or convey an idea using a series of organized slides.  Use Web 2.0 tools (online blogs and wikis) to gather and share	RI3.6 RL3.7 RL3.7 W3. 7,8,9 RI3.5 W3.2	R R M M			
	ther, evaluate, and cite information from digital sources.  Identify purpose of a media message: to inform, persuade or entertain.  Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.  Use appropriate technology to locate, collect, and organize content from media collection for a purpose, citing sources.  Perform basic searches on databases to locate information.  Evaluate teacher-selected or self-selected Internet resources in terms of their usefulness and validity for research.  Present research or convey an idea using a series of organized slides.  Use Web 2.0 tools (online blogs and wikis) to gather and share information, communicate/collaborate.  Explain and use appropriate online tools and resources: browser,	RI3.6 RL3.7 RL3.7 W3. 7,8,9 RI3.5 W3.2 W3.5 SBAC	R M M R R			
	ther, evaluate, and cite information from digital sources.  Identify purpose of a media message: to inform, persuade or entertain.  Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.  Use appropriate technology to locate, collect, and organize content from media collection for a purpose, citing sources.  Perform basic searches on databases to locate information.  Evaluate teacher-selected or self-selected Internet resources in terms of their usefulness and validity for research.  Present research or convey an idea using a series of organized slides.  Use Web 2.0 tools (online blogs and wikis) to gather and share information, communicate/collaborate.  Explain and use appropriate online tools and resources: browser, dictionary, research tool, menu, icons.  Use content specific technology tools (e.g. environmental probes, sensors,	RI3.6 RL3.7 RL3.7 W3. 7,8,9 RI3.5 W3.2 W3.5 SBAC W3.6 MC3.	R R M M R R			
	ther, evaluate, and cite information from digital sources.  Identify purpose of a media message: to inform, persuade or entertain.  Use teacher developed guidelines to evaluate multimedia presentations for organization, content, design, presentation and appropriateness of citations.  Use appropriate technology to locate, collect, and organize content from media collection for a purpose, citing sources.  Perform basic searches on databases to locate information.  Evaluate teacher-selected or self-selected Internet resources in terms of their usefulness and validity for research.  Present research or convey an idea using a series of organized slides.  Use Web 2.0 tools (online blogs and wikis) to gather and share information, communicate/collaborate.  Explain and use appropriate online tools and resources: browser, dictionary, research tool, menu, icons.  Use content specific technology tools (e.g. environmental probes, sensors, measuring devices, simulations) to gather and analyze data.	RI3.6 RL3.7 RL3.7 W3. 7,8,9 RI3.5 W3.2 W3.5 SBAC W3.6 MC3. GA1	R R M M R R R			

Figure 3: Third grade rubric for report card marks in digital skills, part 2

# **Action Steps:**

- ☐ Create four lessons for each elementary grade level that incorporate the digital literacy standards embedded in the Common Core Standards
- ☐ Align lessons to new curriculum adoptions

Train teachers at each of our schools on the integration of technology with english
language arts (ELA) and next generation science standards (NGSS)

### **Financial Implications:**

□ None

### Goal 2: Support a culture of ethical digital citizens.

Ethics in digital literacy leads to positive collaboration and creation with technology. Since 2015, the District has implemented a digital literacy curriculum through the use of lessons from CommonSenseEdu.org. The District piloted the curriculum in 2015-2016, implemented the curriculum in 2016-2017 and continues to do so. In 2016-2017, the District achieved Common Sense Certification for district-wide and at 80% of our schools. In 2017-2018, the District continued deeper implementation achieving certification district-wide and at 100% of our schools. To date, the District is the second largest district in the nation to achieve this level of certification.



Figure 4: Common Sense Education district certification badge 2017-2018

The curriculum scope and sequence span a breadth of topics regarding education and online activity. The eight areas covered in these lessons are: Internet Safety, Privacy and Security, CyberBullying, Self-image and Identity, Information Literacy, Relationships/Communication, Creative Credit and Copyright, Digital Footprint and Reputation. The three to four lessons taught at each grade level cover a variety of these eight areas ensuring students have exposure to all eight areas many times across their K-12 CUSD experience.

The District has continued to lead the state in ethical digital literacy through the daily reminders of ethical digital literacy through the district student homepage. Through this page, students are constantly reminded of what is possible with technology. The district is driving CommonSenseEdu efforts to build a digital literacy presence based on possibilities and opportunities with technology rather than a set of rules and limitations.

### **Action Steps:**

Achieve CommonSense Education Digital Citizenship District Certification every year
Continue to develop and promote teacher and student homepages
Support and offer parent outreach on digital citizenship district-wide
Connect Digital Citizenship curriculum with Social Emotional Learning curriculum

## **Financial Implications:**

□ None

### SAFE AND CONNECTED DEVICES

The modern classroom extends beyond the four walls of the traditional room. When a student can connect to information, that student can learn. The increased connectivity of devices increases the virtual nature of safety. Currently, all schools receive internet through wired and wireless communication protocols in our developing mesh network. Students and staff connect to this 10 gigabit network daily through one of 72,000 total devices (8,353 Desktops, 6,015 Laptops, 4,222 iPads, 33,428 chromebooks and 20,000 personal devices) connected to our network daily.

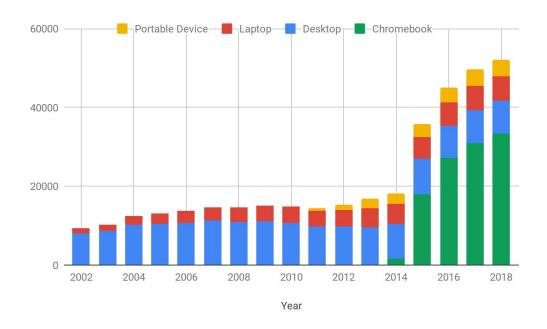


Figure 5: Number of CUSD Electronic Devices by year

The number of devices in the hands of employees and students connected to the network is fundamentally changing the way students access material and learn. This advancement in learning requires updated infrastructure and updated classrooms. The increased requirements of our classrooms are constantly being evaluated to provide our students with the best possible learning environments and innovative teaching practices. Innovative learning spaces will allow our students to continue to innovate in the classroom and extend learning. Students and staff now create documents and presentations online, collaborate synchronously and asynchronously on projects from any location and device with an internet connection. This communication with the cloud has increased the bandwidth required to support the collaboration required by the Common Core State Standards.

A loss of internet connectivity is no longer an inconvenience, it is now a catastrophe because the increased reliance on cloud-based computing. Connected work and devices are no longer on the periphery of how we operate, they are critical and indispensable tools. The use and reliance on Google

documents alone means that disconnection from the internet inhibits the work we do, how we teach, and how our students learn.

### Goal 3: Maintain the District chromebook program

Starting in 2014, the District made a concerted effort to integrate technology in the classroom through the chromebook initiative. The District currently supports a program of chromebook carts in:

- every 4th and 5th grade classroom
- every middle school english and math classroom
- 21 additional chromebook carts at each of the comprehensive high schools
- Two chromebook carts at our continuation schools

With the introduction of chromebooks, the District acquired a Google domain. Since the inception of the 24,000 device chromebook program, our students and staff have created nearly 10 million google documents.

Devices require continued maintenance, support, and training. The chromebooks purchased through the program described have a three to four year life span (estimated by manufacturers). As of November 2018, the oldest chromebooks of the TIS purchased fleet are four years and 2 months old. Further, new versions of the chrome operating system require new hardware in the form of new models of chromebooks. On top of this, teachers retire, change schools, change grade levels, and get hired in the District. Maintenance of the TIS purchased chromebook program requires the following action steps.

•
☐ Refresh all TIS purchased chromebooks
☐ Train all teachers who utilize chromebooks in the google suite
☐ Develop and implement hybrid and online badging for professional learning

☐ Continually assess possible movement to 1:1 student to chromebook ratio

### **Financial Implications:**

**Action Steps:** 

Purchase 27,000 chromebooks
Rewire all carts for new standard charger and plug
Substitutes for teacher training
Hybrid courses to reduce the cost of training - EdTech developed courses
Online professional learning for self-paced opportunities - EdTech developed courses
New device cost and purchase - unknown future price changes
Total estimated costs - \$2.6M per year

### **Goal 4: Support innovative and safe learning environments.**

The facility and the network are components of the technology plan that are often taken for granted. Though space-age to our younger selves, the wireless connection to people, places, ideas, and creativity that exists on the other side of the planet is something taken for granted. In CUSD, these feats are only possible through the interconnectedness of the district network. Without the district network infrastructure, there is no modern classroom. Thoughtful consideration for implementation, increased

reliability and resilience, and refresh of the network architecture is now a necessity. Keeping the internet running is as essential as keeping the lights on. Further, the internet must be available, protected, flexible, and ever-changing to the needs of 48,000 students and 4,500 employees in CUSD.

Equally important to the stakeholders is security and protection for students. To secure E-Rate funding, the District is required to filter the internet. Stakeholder groups noted that filtering and access to material needs to become more appropriate for students. This is not to say more or less strict, but stakeholders wanted to ensure that the District continued to take steps towards blocking the content that should not be accessed and allowing the content that should be allowed. The District employs an industry leading filter and firewall, but will investigate ways to approach the best level of access for all students to balance safety and exploration/investigation.

Reliance on the network is increasing as is the connected device density. The reliance on the network supports the creation of a disaster recovery center and the creation of a business continuity network connection. Increased device connectivity and density requires an increase in network access capacity and security.

### **Action Steps:**

	Design and build a disaster recovery center to ensure the backup and recovery of critical
	data in the event of an emergency.
	Business continuity network connection (secondary internet connection if the primary
	internet connection is down or not working) to increase network uptime.
	Increase capacity in the access layer of the district network by increasing the quality and
	quantity of wireless access points in the district
	Increase bandwidth based on need
	Ensure infrastructure can support 21st century classroom design and connectivity of
	required student and teacher devices
	Maintain and secure district infrastructure for internet access and communication
	Streamline the number of device models to increase efficiency of support by the district
	Increase security to network through next generation firewall
	Increase device security through endpoint (device) protection
	Explore options for increasing efficiency through the Internet of Things (IOT)
Financ	cial Implications:

### **CONNECTED TO COMMUNITY**

The modern classroom is not only connected to information around the globe, it must be connected to the community it serves. The value of technology comes from the connections to information and people. Our goal for communication through technology is to connect people. Communication methods must be constantly updated. Currently, Reuters claims that the average time Americans will wait for a website to load is 3.4 to 3.9 seconds, this is much faster that the 8.2 seconds reported in 2015. The District has changed with this increasing demand for speed and information by moving to a new communication system and by improving upon the email system used in The District. Messages that

☐ Network Infrastructure Maintenance - \$1.2M per year (After E-Rate)

used to take two to three days through the listserv are now be completed in minutes. The District can instantaneously interact with the community and stakeholders through phone calls, text messaging, email, and social media. The District focus on communication keeps our students, staff, and community informed.

Since 2015, CUSD has used the data from the community to implement a new messaging system to more adequately meet the needs of the community. The District has made information available to families by adding community integration to school messenger, upgrading websites to new ADA compliance standards, adding translation to the district webpages, increasing social media presence to tell the story of our schools, and increasing parent portal accounts and usage. 100% of class schedules are now communicated through parent portal. Over 80% of our families have confirmed data before the first day of school. Moving to a cloud-based student information system has maintained data security and made data more readily available to teachers, administrators, and parents/guardians.

District email speed was also improved. With the heavy reliance on email, data, storage, and bandwidth of over 6,000 accounts sending emails began to slow email servers. Through careful analysis, the District was able to increase email efficiency, storage, capacity, security, and mail handling efficiency. The final step of this increased efficiency was the move from on-premise email to cloud-based Office-365 email.

### Goal 5: Continued support and advancement of district communication media.

The District will continue to support communication in the changing technology landscape for student benefit. As we are still unsure to which end communication will change through technology, CUSD will continue to assess communication methods and programs that fit the needs of the population served. The Harvard Family Research Project concluded that increased positive parental involvement leads to higher achievement for students.

### **Action Steps:**

	Continued design and support of district and site web pages
	Continued support of the district dashboard project
	Continued parent communications to increase logins to parent portal during registration
	and report card windows
	Continued notification of grade availability
	Train in social media platforms, branding, etiquette, and use
	Update websites on a quarterly schedule
	Launch of district communication phone app
Finan	cial Implications:
	Potential purchase of new communications platform
	Cost of current School Messenger program -\$65,000

### SUPPORT INNOVATIVE AND DIFFERENTIATED INSTRUCTION

Technology access and availability has changed education. Teachers used to be the only source of information. Students would all use the same material and work at the same pace. Computer labs used

to be the center of technology integration in schools. Since implementing the chromebook program in CUSD, classrooms are the center of technology integration and innovative curriculum. Teachers can utilize computers, information on the internet, multimedia, multi-regional resources, and outside professionals to engage students in learning. Students have access to differentiated material so students can learn differently. Since 2015, the District has integrated technology into the design of classrooms to support differentiation, collaboration, communication, creativity, and critical thinking are constantly changing. The availability of digital learning programs, chromebooks, computer labs, LCD projectors, wireless presentation, voice-lift systems, and classroom integration tools make classrooms centers of technology rich learning.

# Goal 6: Support access and use of research based, digital, learning programs in support of a comprehensive Multi-Tiered System of Support (MTSS)

Digital Learning Programs (DLPs) are online, curriculum based programs aimed at supporting students who would benefit from intervention, helping students develop proficiency in an area of study, or help students extend their learning through an online program.

To ensure that devices and DLPs (Digital Learning Programs) supported by our district align with our goals in MTSS, the District requires action in creating a process to evaluate these programs. DLPs are the online software that support students who need additional support to learn information. These devices and programs are a part of a comprehensive MTSS plan. This process will utilize the efforts of a committee of stakeholders known as the Technology Advisory Committee (TAC).

### **Action Steps:**

programs

	Initiate TAC as a professional learning community to determine a unified adoption	
	process for new supplemental programs	
	Integrate a data review of programs on an annual basis	
	Utilize TAC to make decisions for hardware and software in the District	
	Integrate program goals into the Site Plan for Student Achievement (SPSA)	
Financial Implications:		
	Substitutes or extra hours for teachers on committee - \$5,000 per year	
	Reduction in costs for site purchased digital learning programs for sites that reduce	

### **Goal 7: Update and implement the model of innovative classrooms.**

Innovative teachers are the crux of excellent student learning. Innovative teaching in innovative environments is not based on the technology, but the teacher. However, without the tools, teachers can be impeded to function with pedagogies of the twentieth century. By constantly looking to the tools that teachers have, need, want, and use, CUSD looks to provide teachers with the opportunity to extend the learning of students and prepare them to meet the expectations of a rapidly changing world. That world is changing rapidly due to technology.

# □ Design and support an innovative classroom model □ Provide more flexible space in classrooms for collaborative work □ Reduce the physical space taken up by technology □ Reassess classroom technology annually □ Continue to work with facilities to ensure newly constructed classroom design and furniture meet educational technology best practices □ Utilize the Technology Advisory Committee (TAC) to help guide decisions around classroom design □ Utilize TAC to determine the baseline classroom for CUSD Financial Implications: □ Refresh current technology teacher toolkit - laptop, document camera, projector □ Refresh computers for all staff to support classroom □ Technology for classroom purchases when appropriate □ School site purchases of modernized furniture when appropriate □ Cost of Modern Classroom Maintenance - \$1.4M per year

# Goal 8: Support students learning spaces to foster innovation, creativity, engineering, and design.

Students in elementary schools are creating, designing, and engineering solutions to problems. In the education community, the spaces where students do this have taken several names: makerspace and fab lab are the most well known. In the district, we have branded ours as innovation labs. The CUSD Innovation Labs are rooms where students actively participate in all stages of the engineering and design process. From a prospective design of a solution to trial and error, from revision to prototyping, and finally communicating results. In May of 2017, the first innovation lab installation took place at Hidden Hills elementary school. Since then, fifteen other labs have been built by teachers. The educational technology department, in collaboration with the educational services department has supported teachers as they use these rooms for lesson innovation and integration of STEM (Science, Technology, Engineering, and Math) and NGSS (Next Generation Science Standards) curriculum. The Innovation Labs have become centers of student creation and a place for students to build the solutions they propose in the classroom.

Innovation Labs are not the only center of innovation in schools. The District will continue to explore scalable models for Innovation Labs, and support classrooms that incorporate the engineering and design elements of the Innovation Labs. Through the Career and Technical Education (CTE) classrooms at the middle schools and high schools, these spaces will continue to become more available to students in all schools.

### **Action Steps:**

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Explore scalable models for Innovation Lab at elementary schools
Support innovative learning through green screen, robotics, and builder tools to support
student enrichment

	Connect Innovation Labs with curriculum, including ELA, math, NGSS, and STEM	
	education	
	Continue to support the CTE classrooms and subject matter curriculum	
	Continue to support the e-sports programs and other innovative, student-driven clubs around CUSD	
	Implement a district coding showcase to highlight digital creation by elementary students	
Financial Implications:		
	Potential Title IV grant money for innovation labs	
	Site cost of \$13,000 for a full innovation lab	
	Continued CTE classroom support and equipment refresh	