Loomis Union School District

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Building Excellence in Education since 1856
Gordon T. Medd, Superintendent

Loomis Union School District
3 Year Technology Vision
2015 - 2018

The Loomis Union School District believes all schools are obligated to provide every student access to information and technology in order to develop the necessary skills for living and working in the 21st century.

The Loomis Union School District is committed to providing the core fundamentals for effective media and technology education. These core elements include:

- Building and communicating a shared, community-based vision that prepares students to live and work in the 21st century.
- Creating powerful learning environments using research-based strategies that effectively use technology.
- Effectively integrating information and technology literacy standards into all areas of the school curriculum through a collaborative model.
- Providing ongoing and sustained professional development for all staff in order to achieve educator proficiency with effective teaching and learning practices.
- Adequate funding to ensure adequate technology resources.
- Equitable and robust access to technology for all students and staff.

The Loomis Union School District will use media and technology to help improve student achievement. Technology can enhance learning, and students must develop and apply essential information literacy skills in today's digital age. Students must be able to work collaboratively in applying problem-solving and critical thinking skills together with basic skills through online communication for all students.

The Loomis Union School District will implement standards for media and technology and will communicate through assessments and joint plans to assure that the standards are being met. Research shows that collaboration between media specialists and educators is the most effective way to implement true integration of technology into the curriculum.

The Loomis Union School District will have staff development available to all district employees. Various models and opportunities of staff development will be developed in order to meet the ever changing set of needs for teachers. The Loomis Union School District will have effective instructional technology leaders and/or hire top quality presenters of technology and curriculum for staff development.

The Loomis Union School District will provide an infrastructure that provides instant reliable access to software, the network, e-mail, the internet and other resources.

Technology in the Loomis Union School District will provide constant and current information, data and communication for schools and school families. E-mail, Internet, and reliable telephone service for all employees are tools that help to involve parents in their children's education. Ultimately, this will reach every family regardless of socioeconomic status.

According to the International Society for Technology in Education (ISTE), it is important that all students become information literate. In today's society, information is doubling every three to five years and technology is providing increased access to a wide array of information. The International Society for Technology Standards in Education (ISTE) defines the knowledge and skill essential to becoming information and technology literate.

Technology literacy as defined by the Wisconsin Dept. of Public Instruction is the ability of an individual, working independently or with others, to use tools, resources, processes, and systems responsibly to access and evaluate information in any medium, and to use that information to solve problems, communicate clearly, make informed decisions, and construct new knowledge, products, or systems.

These standards are designed to be integrated into the various skill content areas of the school curriculum. The focus is on learning with technology rather than learning about technology. In order to meet the goal of integrating technology into core curriculum, there must be adequate and equalized access to technology resources.

With equal availability of instructional technology to all students regardless of socioeconomic status, culture, ability, gender, age, or race; schools can help all students develop necessary skills for advancement in the 21st century.

The Loomis Union School District is committed to providing equal access to technological tools for all students and staff. This includes a low student to computer ratio, access to the internet for all, adequate locations and resources for students to practice technological skills.

The Loomis Union School District has a key role to play in the transformation of education. The family of International Society for Technology in Education Standards (ISTE) works in concert to support students, educators and leaders with clear guidelines for the skills, knowledge and approaches needed to succeed in the digital age. Together, we can innovate education. The following is a list of ISTE Standards for Students, Teachers, and Administrators.

ISTE Standards for Students

Our students are at the center of everything we do. As educators, our foremost goal is to prepare them for their future. The ISTE Standards describe the skills and knowledge they need to learn effectively and live productively in an increasingly global and digital society.

1. **Creativity and innovation**

    Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

2. **Communication and collaboration**

    Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

3. **Research and information fluency**

    Students apply digital tools to gather, evaluate, and use information.

4. **Critical thinking, problem solving, and decision making**

    Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

5. **Digital Citizenship**

    Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

6. **Technology operations and concepts**

    Students demonstrate a sound understanding of technology concepts, systems, and operations.

ISTE Standards for Teachers

Teachers have always held the key to student success. But their role is changing. The ISTE Standards define the new skills and pedagogical insights educators need to teach, work and learn in the digital age.

Effective teachers model and apply the ISTE Standards for Students as they design, implement, and assess learning experiences to engage students and improve learning; enrich professional practice; and provide positive models for students and colleagues. All teachers should meet the following standards and performance indicators.

1. **Facilitate and inspire student learning and creativity**

   Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.

2. **Design and develop digital age learning experiences and assessments**

   Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the Student Standards.

3. **Model digital age work and learning**

   Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.

4. **Promote and model digital citizenship and responsibility**

   Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices.

5. **Engage in professional growth and leadership**

   Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources.

ISTE Standards for Administrators

In this time of rapid change, school and district leaders are more important than ever. The ISTE Standards guide administrators in supporting digital age learning, creating technology-rich learning environments and leading the transformation of the educational landscape.

1. **Visionary leadership**

   Educational Administrators inspire and lead development and implementation of a shared vision for comprehensive integration of technology to promote excellence and support transformation throughout the organization.

2. **Digital age learning culture**

   Educational Administrators create, promote, and sustain a dynamic, digital-age learning culture that provides a rigorous, relevant, and engaging education for all students.

3. **Excellence in professional practice**

   Educational Administrators promote an environment of professional learning and innovation that empowers educators to enhance student learning through the infusion of contemporary technologies and digital resources.

4. **Systemic improvement**

   Educational Administrators provide digital age leadership and management to continuously improve the organization through the effective use of information and technology and media-rich resources.

5. **Digital citizenship**

   Educational Administrators model and facilitate understanding of social, ethical and legal issues and responsibilities related to an evolving digital culture.

The Three-Year Technology Vision for the Loomis Union School District:

The current rise of personal-mobile-smart-devices has caused a shift in the way people use computing devices and the way they use the Internet. The Loomis Union School District's Technology Department has recognized this shift in technology and has written three-year information and technology goals to help embrace this change.

As a result of these goals, the Loomis Union School District is re-shaping its network to accommodate these changes, as well as foreseeable changes in future. While we have addressed some of those necessary upgrades already, particularly as it relates to our infrastructure, there is much more that needs to be done.

The following document outlines the strategies necessary to keep up with the changing times, such as system/hardware upgrades, the ability to utilize video conferencing, implementation of a cloud computing system, VoIP (Voice over Internet Protocol), and a comprehensive forward-thinking technology plan.

Infrastructure

During the summer months of 2014, the technology department had several projects that moved the district closer to achieving its ultimate three-year goals.

- **Installed new managed Cisco wireless network for the entire district** – This put the Loomis Union School District on a managed wireless solution with anywhere anytime remote management and monitoring. This solution also increased our wireless network bandwidth and provided more coverage to all our school sites.

- **Network Segmentation** – A network upgrade that divided the network into segments allowing an unlimited number of devices on the network.

- **Established a Public (Guest) WiFi** – A completely secure and independent guest WiFi was created along with a completely secure and independent student WiFi. This configuration ensures that no device on the public or student WiFi can interfere with District devices running on the private WiFi. This also allows for complete and separate management of the public and student WiFi network including bandwidth usage.

The summer projects listed above have prepared the district for a concept of BYOD or Bring Your Own Device to school. The plan allows students to bring their own laptops and tablet devices to campus to conduct their school work, and will be available in January 2015.

Infrastructure Strategies	2014 – 2015	2015 – 2016	2016 – 2017	Comments (if app.)
Installed new managed Cisco wireless network for the entire district	Completed	Ongoing Management	Ongoing Management	
Network Segmentation	Completed	Ongoing Management	Ongoing Management	
Established a Public (Guest) WiFi	Completed	Ongoing Management	Ongoing Management	

Replacement Cycle\Upgrades

- **Educational Staff laptop upgrades** – Upgrade all Educational staff laptops to the new HP ProBook 450G1. This is for any staff member that had an HP 6710b or older laptop. Laptop upgrades will be completed by December 31, 2014.

- **District Office Staff upgrades** – Upgrade District office staff computers that are currently outdated with new HP Elite 8300 CMT computers. Desktop upgrades will be completed by December 31, 2014.

- **Computer Labs** – Upgraded in 2013 will review in 2016 – 2017.

- **Projectors** – Replace all outdated Mitsubishi projectors with Epson PowerLite 965 or newer projectors.

- **Meal Time/Food Service Machines** – Work with the Food Service Department to upgrade computers and touch screen monitors.

Replacement Cycle/Upgrades Strategies	2014 – 2015	2015 – 2016	2016 – 2017	Comments (if app.)
Educational Staff laptop upgrades	12/31/14	-	-	Review 2017-2018
District Office Staff upgrades	12/31/14	-	-	Review 2017-2018
Computer Labs	-	-	Review	
Replace Mitsubishi Projectors	-	08/01/15	-	
Upgrade Food Service Machines	-	08/01/15	-	Review 2018-2019

Develop/Implement a Comprehensive Technology Plan for Loomis Union School District

- **Establish a Committee** – The technology committee will be made up of the following members: District Curriculum/ Technology/Special Ed. personnel, Site Administrator, three (3) Site Grade Level Specific teachers, three (3) parents representing different school sites, two (2) classified personnel, one (1) school board member, two (2) selected 8th grade students.

- **Begin Committee Meetings** – The committee will meet from January to June to develop/review technology plan. Times and locations to be determined at a later time.

Technology Plan Strategies	2014 – 2015	2015 – 2016	2016 – 2017	Comments (if app.)
Lead a committee to develop district technology plan	Establish Team 12/31/14	Review	Review	Establish a new committee
Start developing plan with committee	Develop 01/31/15	-	-	Develop Plan with new committee
Technology Plan Completed	Completed 06/30/15	Implemented 08/15/15	Review and Survey	Plan always under review

Video Conferencing

Video conferencing opens the door for incorporating technology into the classroom through blended learning. Not only that, but students can collaborate with each other, their teachers, and their peers wherever they are in the world! As an educator or as a parent, it is plain to see that the implications of video conferencing in the classroom means that doors open up for students. Incorporating video conferencing technology into the classroom to assist with learning will provide options for geographically isolated students and increase collaboration with virtual pen pals, classmates, parents, and teachers. Video conferencing can also enhance curriculum in art, computer technology, drama, health, language arts, mathematics, science, and social studies through virtual field trips and video resources.

- **Video Conferencing Technology Research & Planning** – Research multiple types of video conferencing software and ascertain which would be the best option for LUSD. Put together a testing plan (i.e. scenarios where live testing would be most appropriate) for future implementation.

- **Test Video Conferencing Technology with One School** – Choose one school to implement the test plan with to ensure that chosen software is viable.

- **Implement Video Conferencing Throughout District** – Roll out video conferencing capabilities to all schools within LUSD.

Video Conferencing Strategies	2014 – 2015	2015 – 2016	2016 – 2017	Comments (if app.)
Video Conferencing Technology	12/31/15 Research/Plan	-	-	
Video Conferencing Technology with One School	-	12/31/16 Pilot	-	
Video Conferencing Throughout District	-	-	01/31/17 Implement	

Cloud Computing

Most of the things that users do with computers such as creating documents, spreadsheets, and presentations can be achieved online. Cloud computing is not intended to be blind to desktop applications or prevent users from using them, but to eliminate platform differences. This will make it possible for all students and staff to be able to access assignments and apps used in teaching and learning, and be able to work on them from anywhere, using any device. By adopting common software that looks and operates exactly the same across all platforms, no matter what device is being used or from where, allows for platform independence. These are the benefits of Cloud computing.

The move to Cloud computing requires a change in the way users operate on the network with respect to document creation and storage. To move to a Cloud-based operation will take approximately three to four years.

- **Online File Storage** – Familiarize all staff and students with different options for storing their files online. Staff and students can make use of Dropbox.com, Google Apps, Live.com, Sugar Sync and other methods of saving files in the Cloud.

- **Online Document Production** – Plan and implement a district wide move to Google Apps for Education (GAFE). Each user will have access to their files and the programs used to create their files from anywhere and at any time.

- **Removal of Licensed Software** – All devices are assumed to be standalone using web 2.0 technologies (web apps), Cloud Storage, and online services. Live in the Cloud. Paying for licensed software such as Microsoft Office will be on an as needed basis. Most productivity software will be free downloads or online web apps.

Cloud Computing Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Online File Storage	Research	Pilot/Implement	Implement	Assessing
Online Document Production	Research	Pilot/Implement	Implement	Assessing
Removal of Licensed Software	Research	Research	Pilot/Implement	Implement

LUSD Employee Portal

Employee Portals are becoming an increasingly popular option for schools. The main advantage of having an Employee Portal is that it is a controlled, Web-based environment that facilitates learning by discovery without the danger of exposure to unsavory content.
An Employee Portal can also be used in an educational context to:

- Post school news, notices, students' achievements, teachers' notes and collect feedback.

- Publish multimedia resources created by students and teachers.

- Research and gather information.

- Create discussion forums which facilitate collaborative project work and peer mentoring.

- Store or host large files, such as animations or graphics, which need to be accessed by a number of students at the same time.

Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Design	07/10/15	-	-	-
Development	07/24/15	-	-	-
Configure & Test	08/30/15	-	-	-
Roll Out	09/23/15	-	-	-
Update Content	Ongoing	Ongoing	Ongoing	Review

Curriculum and Instruction

- All Students will develop and apply 21st century skills such as problem solving, critical and creative thinking, collaboration, and applications of technology.

- LUSD will integrate technology into teaching, learning, and system operations to best achieve our mission and objectives.

- Implement a professional development plan that ensures all staff for all levels (K-8) has support in learning how to best use technology in instructional practice.

Curriculum and Instruction Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Student access to GAFE accounts to increase collaboration between students and instructional staff.	GAFE accounts for students grade 5 & 6 with apps and extensions to support student participation in curriculum	GAFE accounts for students grade 3 & 4 with apps and extensions to support student participation in curriculum	Review/Survey	Review/Survey
Student and Staff access to expanded and advanced technology. Access to Digital Libraries. (e-text, audio books)	Tablet based devices to support staff mobility during instruction (Tech Grant- application process)	Computer Labs to support Robotics program	3D Printers for STEM supported program	Review/Survey
Direct instruction on applications of technology to increase the use of technology in Library Media Centers.	Research the increased use of technology in Library Media Centers to include video editing, video journalism, digital libraries, and digital broadcasts Subscriptions to Interactive web tools	Review/Survey	Review/Survey	Review/Survey

Curriculum and Instruction Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Use of technology to support small group instruction and intervention	-	Tablet based devices to support small group instruction and intervention in grades TK-2 Cost Association: iPad Mini (6 iPads & cases +1 Charging cart; one per grade level K-2 for a total of 3 carts per 6 sites Total: 18 carts including 6 iPads / Cases Cost to be determined	Tablet based devices to support small group instruction and intervention in grades TK-2 Cost Association: iPad Mini (6 iPads & cases + 1 charging cart; one per grade level K-2 for a total of 3 carts per 4 sites (No Ophir or Penryn) +2 carts for TK Total: 14 carts including 6 iPads / Cases Cost to be determined	Review/Survey
Instructional Technology infused into delivery of classroom instruction	Chromebook + Carts for 5th and 6th grade with 35 Chromebooks per cart, per 6 schools 210 Chromebooks + 6 carts. Cost Association: 35x6 = 210 Chromebooks ($71,400) 6 carts per 35 Chromebooks ($9,900) Total = $81,300	Chromebooks + Carts for 3rd and 4th grade with 35 Chromebooks per cart, per 6 schools 210 Chromebooks + 6 carts Cost Association: 35x6 = 210 Chromebooks ($71,400) 6 carts per 35 Chromebooks ($9,900) Total = $81,300	Chromebooks + Carts for 7th and 8th grade with 35 Chromebooks per cart, per 6 schools 210 Chromebooks + 6 carts Cost Association: 35x6 = 210 Chromebooks ($71,400) 6 carts per 35 Chromebooks ($9,900) Total = $81,300	Review/Survey

Curriculum and Instruction Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Develop an Instructional Technology training plan	Small group PD at sites with teachers and administrators regarding GAFE Adoption for students and Chromebooks Super Google Boot Camp 2015 Ongoing informal PD at school sites (staff meetings, class demos, coaching sessions, etc.) Session Break Outs at District Staff Development Days Flipped Video tutorials (on-demand and posted on www.lusdeducators.org	Ongoing	Ongoing	Ongoing

Enrichment / Remediation

Implement, in a phase-in model, a comprehensive intervention support model for all students not proficient in ELA and Math.

LUSD will develop and implement tiered interventions, enrichment and other academic support for students demonstrating need both academically and behaviorally.

Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Assistive Technology to support access to curriculum and instruction for students with various learning needs	-	Chromebooks for Special Education Teachers GAFE Accounts for students depending on grade level Access to support programs and related apps to increase access to and participation in instruction Cost Association: Chromebooks ($340.00 each x7 = $2380) Google Read & Write Subscriptions ($99 x 14 = $1400.00)	Review/Survey	Review/Survey
Data management program for SST process to track interventions and progress monitoring	-	System options explored (Behavior Advantage; iPass; MAPS; Public School Works)	Implementation of Data management system Staff training for system use	Review/Survey

Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Assessment process for evaluation of student needs and related interventions	-	Assessment process for evaluation of assistive technology considerations	Review/Survey	Review/Survey
Integration of technology to support English language learners to access instruction	-	iPad devices to support individual student access to translation of instructional materials into native language Cost Association: Tablets ($334 x2 = $668) Quantity 2 iPad Minis	Review/Survey	Review/Survey
Instructional Technology infused into delivery of special education services	iPad Minis with assessment and instruction apps for delivery of specialized academic instruction Cost Association: 2 tablets per Special Ed. Classroom (7 classrooms) Tablets: ($334 + cases x14 = $5010)	Review/Survey	Review/Survey	Review/Survey

Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Tablet devices with assessment and instruction apps for delivery of speech and language therapy, occupational therapy and counseling through Medi-Cal funds for billable services	-	iPad Minis with assessment and instruction apps for delivery of speech and language therapy, occupational therapy and counseling through Medi-Cal funds for billable services. Cost Association: 4 SLPs 4 Psychologists 1 OT 1 Counselor = 10 iPad Minis ordered with Tech Plan but funded through Medi-Cal funds	Review/Survey	Review/Survey
Training and exploration of assistive technology to increase access for students to curriculum & instruction	Building of AT Toolbox for pilot use of low, medium and high tech supports for students (Medi-Cal funds) Training of Student Services staff in the use of Assistive Technology to increase student access to curriculum	Review/Survey	Review/Survey	Review/Survey

Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Increase variety of strategies and use of technology to support students on Independent Study and Home and Hospital instruction to access classroom based instructions		Explore options for access to classroom based instruction through technology	Review/Survey	Review/Survey

Communication

VoIP (Voice over Internet Protocol)

Implement VoIP technology to improve the delivery of voice communications and replace the aging phone system.

- **VoIP Research** – Research multiple types of VoIP software and hardware that would best fit the needs of LUSD.
- **VoIP Planning –** During planning consider the benefits and unexpected consequences of VoIP and have a conversation with Administration. Choose a provider that best meets the needs of LUSD.
- **VoIP Network Design & Implementation** – Design and implement a robust VoIP system around the current LUSD network.

Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
VoIP Research	9/31/2015 Research			
VoIP Planning	-	1/31/2016 Plan		
VoIP Implementation	-	6/30/2016 Pilot/Implement	Review/Survey	Assessing/Improve

LUSD will effectively market, promote, and communicate district activities and accomplishments via email, Parent Portal, Teacher websites, and School Messenger.

LUSD will ensure effective two-way home/school communication that is transparent and timely.

Strategies	2015 – 2016	2016 – 2017	2017 – 2018	2018 - 2019
Review current technology for staff use and effectiveness	Review productivity of products for email, website hosting, etc.	Review/Survey	Review/Survey	Review/Survey
Explore options for Employee portal for staff access to Department documents	LUSD Staff Portal through separate site (Word Press) Convert LiveBinders and related documents to LUSD Staff Portal access	Review/Survey	Review/Survey	Review/Survey

The goals and strategies outlined above will be dependent upon the continued direction of the district, and the availability of district funds, in order to allow these goals and strategies to become a reality.

In closing, technology is always changing and evolving. In order to best serve our students, and provide them with the best learning environment possible, we must evolve with it. Our needs today may not be our needs in three years. However, the strategies put forward in this plan will assist us in staying ahead of that curve and to be proactive in our implementations, rather than reactive.