Instructional Technology Report

The Corvallis School District supports academic excellence for all students with an emphasis on high quality content and classroom instruction and effective learning tools. Instructional technology plays a significant role in student learning. We've come a long way from overhead projectors and filmstrips. Teacher desktop computers, interactive whiteboards, and most recently, 1:1 student devices have become prominent tools to amplify and accelerate student learning in the modern classroom.

Background

In 2006, the school district initiated a community-wide visioning process to identify the community's values and align targets for student outcomes with those values. With input from more than 1,300 community members, parents, students, and staff the *Corvallis Community Vision for Education* was presented and adopted by the school board in November 2007. One of the eight programmatic focus areas included recommendations for instructional technology. The shared vision was that students would have the knowledge, skills, and experiences to prepare them for future success in an ever changing world and a 21st century global community.

Instructional technology priorities included:

- establishing and funding an ongoing replacement cycle for technology equipment,
- providing staff training for using technology and integrating technology into instruction,
- establishing protocols for appropriate use of technology,
- and teachers modeling the use of technology and encouraging student use as part of their project-based learning.

Historically, instructional technology has been funded through a district allocation to technology equipment and staff support, and leveraged with the federal e-rate reimbursements. Small innovation grants have also been funded by the Corvallis Public Schools Foundation. In addition, schools have allocated a portion of their building funds for technology equipment. The five year replacement cycle was adopted in 2007 for staff computers and student lab computers in need of replacement. Remaining technology replacement funds, combined with building funds, have been used to purchase other classroom equipment such as document cameras and interactive whiteboards. Technology investments have supported and sustained our vision to provide interactive classrooms throughout the district.

Why 1:World?

In early 2012, Superintendent Erin Prince prioritized the need to address the 67.5% graduation rate and the achievement gap that was clearly and disproportionately affecting students in poverty, students of color, and students in special education. Looking to the successful expanded integration of instructional technology in school districts in Minnetonka, Minnesota, Mooresville, North Carolina, and Vancouver, Washington, our forward thinking superintendent charged leadership staff to explore the feasibility to expand instructional technology in Corvallis schools to include 1:1 devices for all students. Also during this period, teacher driven iPad pilot projects were funded by the Corvallis Public Schools Foundation small grants program and with one time technology funds for students in special education programs.

Since that time, instructional technology has grown in importance and according to the U.S. Department of Education, technology has become a key component in the modern educational setting.

> *"Technology is at the core of virtually every aspect of our daily lives and work, and we must leverage it to provide engaging and powerful learning experiences and content, as well as resources and assessments that measure student achievement in more complete, authentic, and meaningful ways."*
>
> *2014 National Education Technology Plan, p. ix*

Research and best practice

With the success of pilot projects as a starting point, instructional technology staff conducted technical reviews and site visits in multiple Oregon school districts including Eugene, Tillamook, and Canby and the Vancouver School District in Washington. This discovery process convinced district leaders that 1:1 instructional technology was a tool that could provide all Corvallis students with equitable learning opportunities and would accelerate a 21st century shift in teaching and learning in Corvallis schools. The 1:World initiative was the result.

The technical review process included research on deployment strategies, building infrastructure requirements, and device management systems. We also examined classroom management strategies, instructional support, and approaches to differentiated instruction.

Modern day tools for modern day students

The overarching goals for 1:World are educational equity and connecting students to their own learning. By issuing students the same device, the Corvallis School District is endeavoring to make technology access and learning opportunities the same for all students at school and at home. When fully implemented, all students will have the tools needed to support their learning.

- Anytime, anywhere learning for everyone
- Personalized learning experiences
- Access to curriculum and online assessments
- Strengthen 21st century skills by preparing students for college, career, and life
- Collaboration opportunities
- Nurture good digital citizenship

Initiative Progress and Current Status

Now in our fourth year, tablet devices are being used by nearly 64% of all students in the Corvallis School District. This initiative is supported through existing funds and does not rely on financing or leasing options. There are 3,966 student tablet devices in use in all middle school classrooms, in all classrooms at Mt. View Elementary school, in all classrooms in the Dual Language Immersion schools (Garfield and Lincoln Elementary), and in selected elementary and high schools classrooms. Currently, only students in grades 6-12 have access to their device at school and at home. Later this year, students in grades 4-5 may take devices home for special projects or assignments. Devices issued to students in grades K-3 remain in the classroom. A table of device counts is provided in the Appendix.

Phase I (2012-13 school year) included nearly 1,200 tablets distributed to middle school and Crescent Valley High School science classrooms, a third-grade classroom at Jefferson Elementary, and all Learning Resource Centers. Early results indicated increased student engagement and personalized learning, most notably for students with learning disabilities and students that were failing to perform at grade level.

Total expenditures 2012-13: $316,698

In Phase II (2013-14 school year), the school board approved a significant expansion of the 1:World initiative with additional tablet devices provided to all certified staff and all students at Mountain View Elementary, Linus Pauling Middle School, Cheldelin Middle School and to students in the AVID programs at Corvallis High School and Crescent Valley High School; and English-only students at Garfield and Lincoln elementary schools.

Total expenditures 2013-14: $948,478

In Phase III (2014-15 school year), the school board approved additional funds in support of the 1:World initiative to provide middle school students at Franklin K-8 with 1:1 devices, to fund teacher Innovation Grants for classroom pilot projects at all grade levels, and Chromebook pilot projects in two Corvallis High School science sections. Students in 11 selected classrooms also received tablets, which were chosen through the district's Innovation Grants. During this phase, the district slowed the pace of this initiative to address capacity and to solidify infrastructure.

Total 2014-15 expenditures: $580,270

Phase IV (2015-16 school year) included providing 1:1 devices in all classrooms at Dual Language Immersion schools, Garfield and Lincoln Elementary, and to all AVID students at Crescent Valley and Corvallis high schools. Additionally, students in five selected classrooms at Adams, Hoover, and Wilson elementary schools received tablets as an extension of the district's Innovation Grants from the prior year. The district also piloted laptops in four high school classrooms, and continued to expand wireless infrastructure to accommodate device implementation and increased bandwidth use.

Total 2015-16 expenditures: $661,211

Funding of student devices comes from a combination of technology replacement funds, facility funds, curriculum adoption funds and other sources. Further funding detail is outside the scope of this report and will be included during the upcoming budget process. Current digital curriculum costing from national vendors is similar to the current model of renewing textbooks every seven years. However, this is a period of change. There are non-profits and other content creators that are committed to providing no cost and low cost curriculum for our nation's students. The transition to digital content has the potential for significant curriculum cost savings. The total investment to date for student and staff 1:World devices and expanded infrastructure is approximately $2.5 million.

Structure and Process

Device selection and standards

The iPad tablet was selected to launch the 1:World initiative due to a number of criteria including ease of use and rapid start-up, long battery life, mobile device management system for teachers and technology staff, the ability to rollout district approved applications to individual devices, and vendor support including curriculum and instruction/pedagogy, infrastructure and purchasing support.

In addition to technical requirements, student safety and security are also a priority in the use of student devices. All student devices are routed through the Children's Internet Protection Act (CIPA) compliant internet filter in which all inappropriate content is prevented. Student devices are configured with built-in restrictions based on age ratings.

Mobile device distribution

A total of 3,966 1:1 devices are available for student use in the 2015/16 school year. Overall device counts are as follows:

Elementary schools	1,974 devices
Middle schools	1,374 devices
High schools	532 devices
Special Education	74 devices
English Language Learners	21 devices

Apps

Standard applications (apps) loaded onto student tablet devices include Google Drive (document storage), Showbie (homework assignments), Keynote (presentations), Notability (notetaking), STARS (assessment), AccessMyLibrary (digital access), Numbers (spreadsheet), iBooks (digital reader), QR Reader, iMovie, and Socrative Student (classroom response). Additional approved apps are available for download as determined by the classroom teacher.

An approved app list is maintained in the district's device management system by school and grade level. There are currently over 300 approved apps available for use (many are free) ranging from American Revolution Interactive Timeline, CK12 Study Now!, Dragon Dictation, Educreations Interactive Whiteboard, Khan Academy, and Merriam-Webster Dictionary, to name a few.

As teachers identify new apps to best support their student's learning needs, the approval process includes review by the building principal, then a request to the Technology Department for a full compliance review with the district privacy policy. If approved, the app is added to the authorized app list and the approval forwarded is back to the Principal. Approximately two weeks is required for the review and approval of a new app.

Operational guidelines and practices

Operational guidelines and acceptable use practices were developed by staff representatives from Risk Management, Technology Services, Student Services, and district leadership. A Family Handbook was published in English and Spanish, providing an overview of getting started and taking care of the student device. The optional CAPe (Corvallis Assurance Program for electronic devices) was created to cover one free damage repair per year. Staff, student, and parent guidelines and practices are reviewed annually, following a continuous improvement model.

- The optional assurance program cost has decreased from $45/year to $30/year.
- Screen replacement is the most common form of damage and is covered in full by CAPe.
- Since the inception of the 1:1 initiative, 326 reports of lost or damaged devices have been filed. This represents less than 1% of all devices over the life of the initiative.
- Students that qualify for the Free and Reduced Meal Program are offered a reduced CAPe enrollment charge and in some hardship cases, the fee is waived. CAPe funds are also provided by the Corvallis Public Schools Foundation's *Student Opportunity for Success fund* for middle school students.

In 2013, BrightBytes, an education research firm, was engaged with a three year contract to gather benchmark information from staff, student, and parents. Through a series of four surveys, the BrightBytes reports have helped district leaders identify areas of possible professional development, how technology is being used in the classroom, and the support services needed by students and parents.

In the fall of 2014, the Technology Advisory Committee (TAC) was formed with the charge of advising the superintendent on technology-related issues that impact students, teachers, support staff, and families.

The TAC is comprised of teachers, parents, community members, and a student representative. The group began meeting in early October, and completed their first round of recommendations on February 18, 2015. After immersing in background information regarding the current instructional technology initiative, TAC formed three subcommittees to address issues in the following areas: Health/Communication, Parental Controls/Internet Filter, Language and Vocabulary/Policy.

The School Board supported recommendations from the TAC in 2014/15 including:

- Full implementation grades K-5 at Lincoln and Garfield Elementary schools, and at other schools, grades 3-5, as quickly as infrastructure will allow.
- Continue parent information nights and include updates, progress, teacher demonstrations, and survey data gathering.
- The school district should perform periodic privacy audits that evaluate the ability of vendors to protect student privacy and security of district data.
- Significant revisions are recommended for Board Policy GCAB-Personal Communication Devices and Social Media-Staff to bring the policy in compliance with House Bill 2426.

The 2015-16 Technology Advisory Committee has begun the discussion of a recommended curriculum for the development of a high school elective in computer programming. That work is continuing. In addition, the TAC is planning a study of the 1:1 program in partnership with the OSU Center for Research on Lifelong STEM Learning. This new partnership will be a qualitative research process with focus group participation from teachers, students, and parent/community members. The goal is to complete this work and share information with the school board by June, 2016.

Infrastructure and Systems

With an average age of 50+ years, 11 of our 13 school buildings were not designed or equipped to support interactive classrooms or the demands of today's digital and networked world. Since 2012, the district has rewired the electrical and networking infrastructure throughout the school district.

To support the 1:1 initiative, building improvements include installation of a dedicated wireless access point and three additional data cables into each classroom. Other network equipment such as switches, routers and other data center improvements necessary to facilitate these additions are also included in the build-outs at each location. Effective in 2015-16, changes to eligibility of the Federal E-Rate program allowed the district to successfully extend its application for reimbursement to include more Wi-Fi related networking equipment than before. The rate of reimbursement remains at 60% of expenditures.

The demand for bandwidth has steadily increased over time and the technology staff continually monitor use to stay ahead of Internet connection demand. The district recently upgraded the main connection to LBL ESD from 300 Mb/s to 1000 Mbps (1 Gb/s) and individual connections between schools from 100 Mb/s to 500 Mb/s. These values were calculated by monitoring peak usage during high demand periods + 40%. To maximize access and speed to internet connectivity during school hours for instruction, the following practices are encouraged:

- Teachers in grades 3-5 are asked to coordinate the installation of apps in their building so that not all students are downloading content at the same time.
- Students in grades 6-12 are encouraged to download approved apps at home to increase efficiency of downloads.
- Staff and students are discouraged from the use of streaming services such as Internet radio when not needed for instructional reasons.

Wi-Fi Infrastructure Improvement Schedule

Scheduled Phase and Year	**Building**
Phase II 2012-13 Completed Summer 2013	Mountain View Elementary
	Cheldelin and Linus Pauling Middle Schools
Phase III 2013-14 Completed Summer 2014	Franklin School (6-8 grades)
	Corvallis and Crescent Valley High Schools
Phase IV 2014-15 Scheduled Summer 2015	Garfield, Lincoln and Wilson Elementary Schools
	Harding Center/College Hill
To be completed Summer 2016	Adams, Hoover and Jefferson Elementary Schools

Computer replacement schedule

Beginning in 2013-2014, student computer labs were evaluated for replacement in the context of the 1:World program. Computer labs were categorized by whether they were likely to remain in service once all students in the school were issued a device. Lab computers were determined to be either in need of complete replacement or able to stay in service for another 4-5 years with minor memory (RAM) upgrades. This evaluation included inspecting the overall equipment condition, detailing the purpose of the lab, resources needed to run anticipated software in future years, and the maintenance history of individual computers. A breakdown of the computer replacement schedule is included in the Appendix.

Interactive classrooms

A modern day interactive classroom provides high potential learning capacity with the seamless integration of great teaching and embedded technology. Interactive classrooms are equipped with a ceiling or wall-mounted projector and interactive whiteboard, (or interactive TV or flat panel TV), wireless device projection, a document camera to show transparencies, papers, or small objects on the projector, a dedicated wireless access point, and a classroom amplification system. Even as the chalkboard was surpassed with the whiteboard, which evolved to the interactive whiteboard, the district is currently analyzing and reviewing best practice and emerging classroom solutions. In collaboration with vendors, other school districts and institutions, and with input from the Technology Advisory Committee, we are monitoring the status and total cost of ownership of alternative projection technologies other than lamp-based, ceiling mounted projectors. Wireless device projection can include hardware-based solutions such as wireless-enabled projectors, and AppleTV or equivalent audio/video relay boxes or software-based solutions for computers such as Reflector 2, SplashTop and Mirror360.

Current inventory of classroom projection and interactive whiteboards

Installed projection devices in the classroom are of great importance in the interactive classroom and 84% of our classrooms include this equipment. A breakout by elementary and secondary classrooms is provided in the Appendix. The district is looking at equitable funding options to assist all schools in achieving the interactive classroom technology standard.

There is greater variance in the number of classrooms with SMARTBoards. In general, elementary level teachers feel strongly that the interactivity aspect of the screen is important. Secondary teacher prefer varying screen types. The current distribution of SMARTBoards in elementary versus secondary schools shows that preference and is also shown in the Appendix.

Student accounts and device deployment

Student iPads in grades K-2 use institutional accounts for device management and to access educational apps. Starting this year, in accordance with recommendations from Apple and JAMFSoftware, all students in grades 3-12 are now using individual student accounts to manage their iPad app downloads. These student accounts were created by district staff using a new Apple kiosk system created for this purpose. These accounts are also used by students to create backups of their work in the iCloud section of the iPad settings. At the request of K-12 districts nationwide, Apple has recently overhauled the iPad app download process, allowing for districts to push out apps to district-registered devices without the need for student Apple IDs. District technology staff have begun testing this new system with anticipated implementation for the rollout of 2016-17.

Device rollout

All students receive up to five Boot Camp lessons on acceptable use and care of the device as well as digital safety and security prior to receiving their device for the school year.

Elementary student tablets are deployed to classroom carts over the summer and are in place by the first day of school. Classroom teachers instruct their students on how to log on to the device and download apps at school.

Secondary schools are provided detailed deployment plans which are customized for each school. For middle schools, students go through a multistage checkout process in the school library in which they are assisted by staff and volunteers to log onto the device and download apps for the first time. Students are instructed to download all remaining approved district apps needed for school either at home or at school before or after the regular school day.

The Apple Support Team has advised the district to not check out iPads to students during the initial release period of a new iOS for the device each September. Since the actual date and time of the release is not announced ahead of time, the district has had to reschedule rollout events at the middle and high schools once the iOS date is announced.

Student internet access outside of school

Some applications require Wi-Fi access, but many tools do not. Also, according to recent U.S. Census data, Corvallis is one of the most 'internet connected' communities in the country and according to the most recent BrightBytes survey, 92% of students with devices self-reported that they have internet access

at home. The Student Services Homeless Education Program has supported our highly mobile homeless students with a mobile hotspot device to access the internet no matter where they are living.

If students don't have Wi-Fi access at home, they may use their devices at school before and after the school day and a number of free Wi-Fi locations are available throughout the community. Open Wifi Spots is a website that lists locations. We continue to have conversations with community partners and agencies about student internet access outside of school.

Device management and inventory tracking

The district uses a mobile device management (MDM) system called JSS by JAMFSoftware to prepare and manage the iPads. This system allows for over-the-air management of renewable app licenses, app deployment, restrictions, and configuration of the iPads. This system integrates with the set of basic tools Apple makes available to third party vendors (such as JAMFSoftware) that ensures the iPads can be remotely managed while maintaining industry-standard safety and security for the iPads and ensure student privacy. The district also uses the library system called SIRSI to checkout mobile devices and computers to associate devices to individual staff and students. In addition, the technology staff keeps an inventory system to track the purchase, deployment and the retirement of equipment. Together, these systems ensure the tracking of a device from purchase to surplus over the life of the equipment, including movement of the device around the district and the locations and persons responsible for it during the period of device service.

Following the recommendation of the Technology Advisory Committee, the security of district iPads was evaluated in 2014 by Virtual Security Research, LLC. The safety and security of the school district iPad connections both to Apple and the JSS MDM system were extensively stress-tested under real-world conditions and evaluated for intrusion and penetration vulnerabilities. Security measures built-in to the iPad and the communications to JSS and Apple, and the communication between JSS and Apple were found to be low-risk with the probability of interception and compromise of student privacy and confidentiality to be highly unlikely.

Similar to desktop and laptop computers in the district, mobile devices are routed through the CIPA compliant Internet filter when connecting through the district network. Mobile devices are also configured with a non-removable, non-readable profile that forces all internet activity through the same internet filter when the device is outside the district's network. Student devices are also provisioned with

a configuration profile that prevents content such as apps, music and books that fall outside pre-set age restrictions.

For K-12 iPad deployments, JSS is considered the best product of its type, protecting the privacy and security of student devices. The district, however, has experienced significant technical problems with the JSS and Apple integration of the product. As Apple rolls out new management features each Fall, either the new iOS or the implementation of new functionality inside JSS creates faults in the management software that results in students either having difficulty downloading the apps they need for instruction or connecting to the Internet outside the district network to perform their homework.

In 2015-16, district technology staff spent the majority of the fall term working with technical support at Apple and JAMFSoftware to address and resolve these issues as quickly as possible. All student devices at Franklin, Cheldelin, and Linus Pauling middle schools have undergone a soft recall to allow technology staff to validate the enrollment of the devices in the MDM and download any missing content. These recalls occurred before and immediately following Winter Break. The Technology Department staff have worked diligently to get the middle school devices up and running as smoothly.

Technology staff have already begun to consult with our vendors and other school districts on best-practices to streamline and improve collection and deployment of iPads in 2016. This year's technical issues with the middle school iPad deployments would not have benefited from more school or Technology Department FTE. Those issues were dependent on vendor responses and support. For future phases and rollouts, however, the Technology Department will seek additional third-party consulting services, including from Apple, to validate processes and if necessary, troubleshoot issues that are introduced when their software is upgraded.

Technical support for staff and students

The Technology Department employs 4.5 FTE technology support Technicians who rotate between their assigned buildings on a weekly basis. Technicians provide second tier technology support to their buildings and help prioritize and guide the work of the building Single Point of Contact (SPOC). SPOCs and Technicians work closely on projects and issues on a regular basis. The Technology Department also employs 1.5 FTE iPad support Technicians that focus on mobile device management, app purchases, direct rollout, and device maintenance support to school staff.

The Technology Department also includes 0.5 FTE for inventory and tracking support of all computers and mobile devices and 1.0 FTE each for system and network administration support. We anticipate the need to hire up to two full time staff for technical support when full device implementation is achieved at the high schools. Each school supports a classified computer lab assistant or a Single Point of Contact (SPOC) staff position. SPOCs coordinate the technology needs within their building and provide first tier tech support and maintenance to school computers and mobile devices. Elementary schools SPOCs work 3.5 to 6.5 hours per day on instructional days depending on whether the school has partial or full implementation of 1:1 devices. Secondary school SPOCs work 6.5 to 8 hours per day.

Professional Development

Instructional technology has the potential to change classroom dynamics. The 1:World initiative includes a variety of professional development offerings and participants self-select by curriculum areas or instructional technology areas of interest. BrightBytes Survey responses from a statistically significant representation of teaching staff (261) in November 2015 include the following.

- 65% of teacher respondents agree or strongly agree that learning is more engaging with technology
- 87% agree or strongly agree that technology can enhance learning
- 78% agree or strongly agree that "I want to learn more about effective technology use for teaching and learning"

The 1:World Academy training, offered August 27-28, provided elementary teachers and instructional support staff a springboard for their first year as a 1:1 classroom leader. This training provided 45 teachers with a foundation of understanding in how to implement the district's "core" iPad apps into their curriculum. This included stressing the theme of "you don't need an app for everything" and moving teachers further along in the SAMR model (substitution, augmentation, modification, and redefinition) with "hands-on" interactive time with each app.

Incorporating evaluation feedback from 2014, we provided more PLC work time, brought in multiple teachers to share examples of technology use in their classroom, and provided more differentiation activities based on the teacher's overall comfort with technology. Overall, the training was very successful. Before the training, 56% of staff surveyed did not feel prepared to teach in the 1:1 classroom, while 7% of teachers felt adequately or very prepared. After the training, 3% of teachers did not feel prepared compared to 57% that felt adequately or very prepared. This was the second consecutive year with data showing a dramatic change in preparedness for teaching in the 1:1 classroom.

The district's instructional technology coaches are instrumental in the deployment of iPads in 1:1 schools. The instructional technology coach works to improve and support curriculum and instruction, and to provide assistance in staff deployment, program implementation, and coordination of instructional activities using technology. For the 2015-2016 school, 14 instructional technology coaches were funded for the six 1:1 buildings (Linus Pauling - 4, Cheldelin - 3, Franklin Middle School - 1, Garfield - 2, Lincoln - 2, Mt. View - 2). Teacher on Special Assignment, Robbie Faith, meets with the instructional technology teams once a month. These meetings help identify any needs and supports for the staff and to plan staff development related to instructional technology. In addition to attending meetings, the instructional technology coaches initiate check-ins with teachers, provided instructional technology assistance when needed, and provide a safe place for teachers to ask for support related to instructional technology.

Targeted and embedded training sessions (before and after school) are developed based on the needs of staff. These optional trainings provided focused and "hands-on" experience with an app or software program that provides teachers with a tool that they can leave with and use the following day. These training sessions are typically developed based on instructional technology coaches identifying a specific need or interest area for the building staff. SMARTBoard introductory training, Smart Response data collection software, Showbie, Google Drive, and intervention support apps are a few examples of topics covered during these training sessions.

Family engagement

The 1:World Family Handbook was published in 2014 as a guide for parents to understand the goals of the 1:World initiative and to help students get started with their device. A Technology responsible Use Summary and Agreement is also required from all students. These materials are provided to parents during the rollout of student devices at individual schools.

Schools also provide parent information nights at the beginning of the year and have the option of hands-on demonstration nights for students to share with their families how they are using instructional technology for learning. Individual teachers also host parent nights to help parents better understand the specific objectives of instructional technology in the classroom and at home.

Resources on the internet include a 1:World information page on the school district website and multiple links to other helpful websites including Common Sense Media.

Strategic Path for Instructional Technology

In a rapidly changing world, driven by technology, our approach to teaching and learning must continue to evolve. Leveraging learning with technology is not a new idea. What is new is that we are now challenged to prepare students in developing modern day competencies that will support them in a technology rich and globally networked world as they progress through their K-12 journey and beyond. Next steps on this path will be pacedAlig according to resources available for equipment and infrastructure, staff support, and professional development. Our next steps include:

Continued implementation of devices and development of infrastructure

- Integration of 1:1 devices for all students
- Refine systems to explore and test emerging technology and innovation to improve student learning
- Manage bandwidth usage and forecasting predictable levels and increase bandwidth accordingly,
- Include the vision of an evolving interactive classroom in long range visioning and planning for district facilities.

Systematic and coordinated exchange of information and support for staff

- Utilize the International Society for Technology in Education Standards (ISTE) to guide professional development options, teaching, and learning,
- Recognize staff innovators, acknowledging that efforts to rethink course planning takes time and technology integration is an investment in improved teaching and learning,
- Sustain quality staff support including technical support and a variety of professional development opportunities for staff.

Align best practices in instructional strategies, curriculum, and digital tools

- Provide an interactive learning environment that provides all students with access to high quality print and digital content,
- Expand student personalization and opportunities to extend learning beyond the school day/year for all kids,
- Nurture and encourage creation of original digital curriculum created by teachers.

Our school district is committed to providing leadership, resources, guidance, and infrastructure for the 1:1 program. We believe in a bottom-up approach in the adoption of innovative instructional strategies in classrooms while providing district leadership and support to get there. We believe this approach is sustainable in the long run. When non-adopters see proactive teachers pursuing the classroom tools they want, they are more motivated to do the same. This becomes a mechanism for scale.

We appreciate the support of the Corvallis School Board and the community to realize the vision of providing to the tools needed to amplify and accelerate student learning for all kids.

Report submitted by
Assistant Superintendent Kevin Bogatin
Technology Services Manager Rob Singleton

APPENDIX

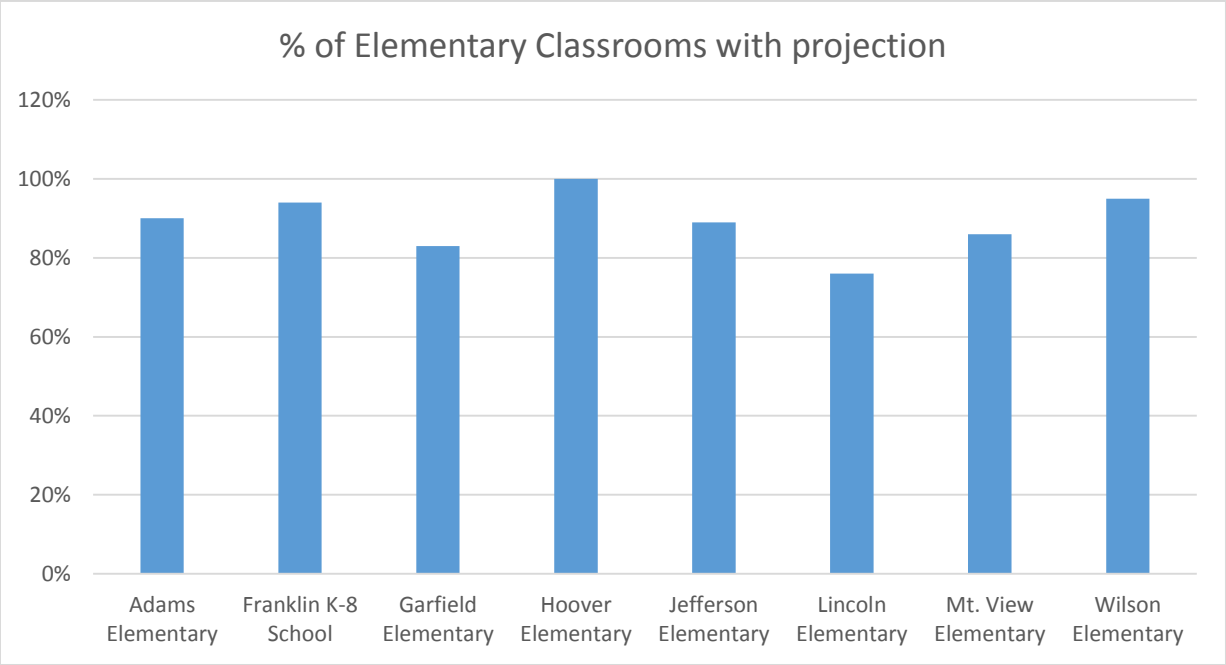
Mobile device counts by school

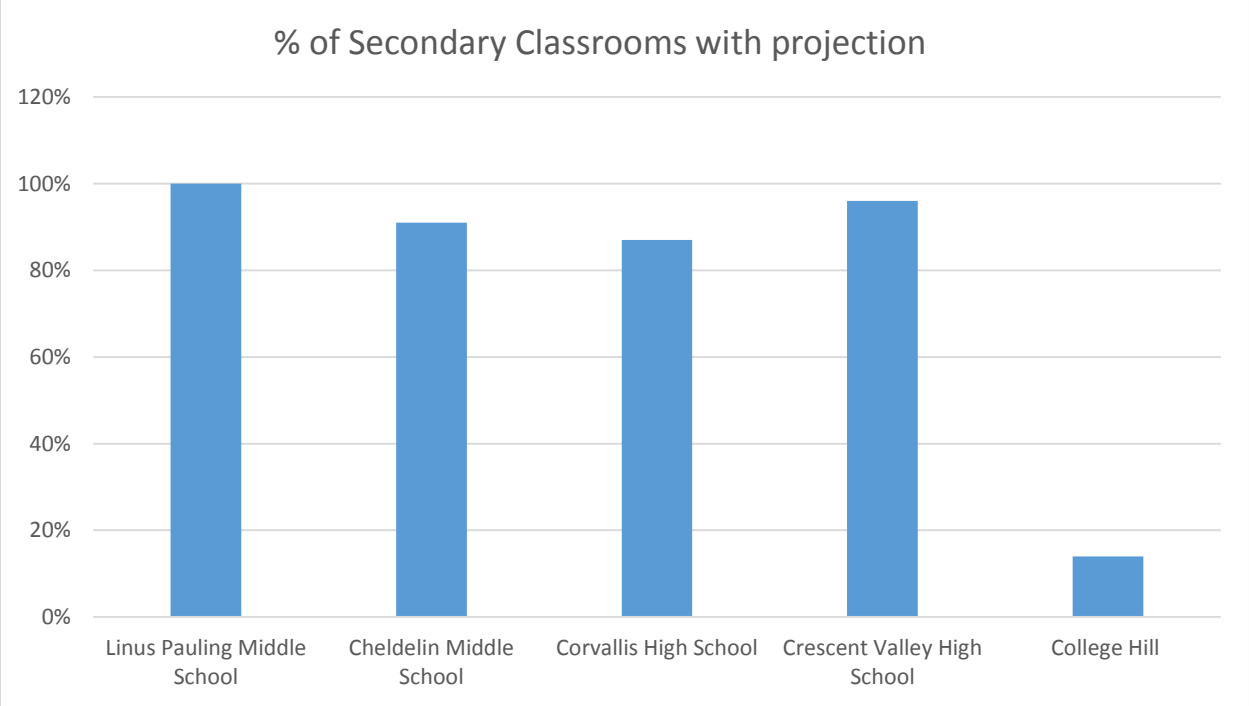
Adams Elementary	150	
Franklin K-5	0	
Garfield Elementary	539	Includes Title I devices purchased in previous years
Hoover Elementary	90	
Jefferson Elementary	157	
Lincoln Elementary	485	Includes Title I devices purchased in previous years
Mt. View Elementary	393	
Wilson Elementary	160	
Linus Pauling Middle School	673	
Cheldelin Middle School	528	
Franklin School 6-8	173	
Corvallis High School	194	Incl. AVID iPads, 80 pilot Windows tablets and 40 ChromeBooks
Crescent Valley High School	329	Incl. AVID and science cart iPads, and 80 pilot Windows tablets
Special Education	74	Additional. devices used by students not currently in a 1:World classroom
English Language Learners	21	Additional. devices used by students not currently in a 1:World classroom
	3,966	

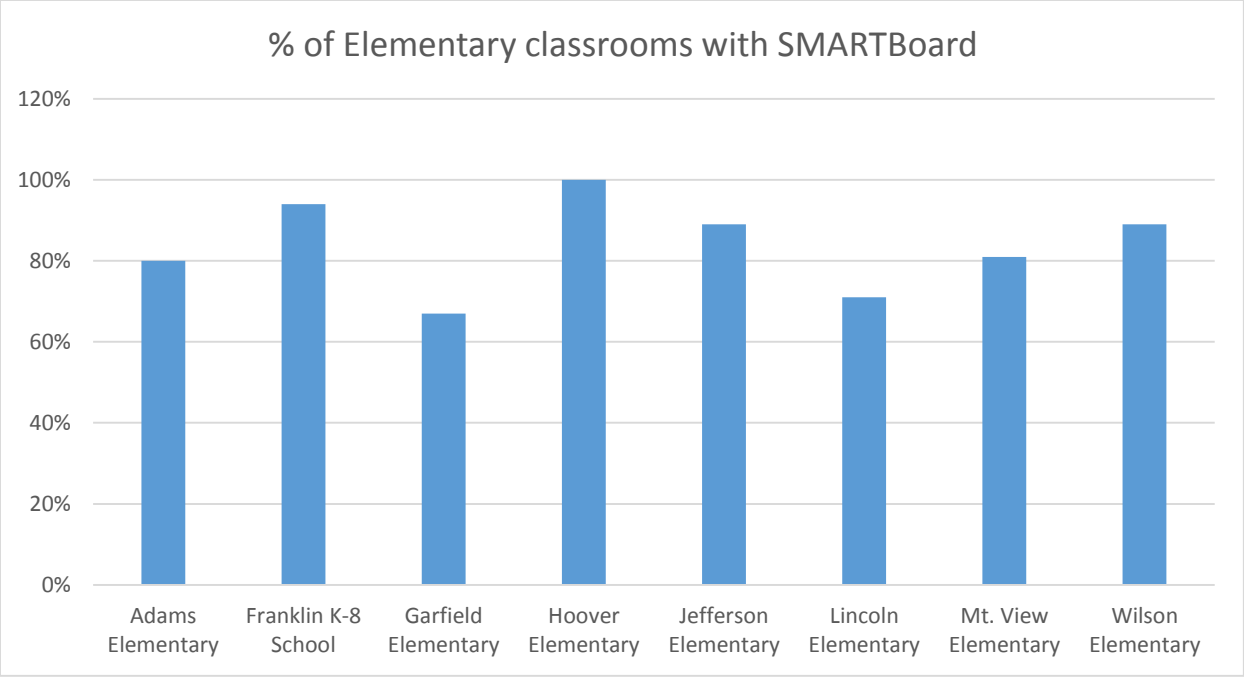
Replacement schedule

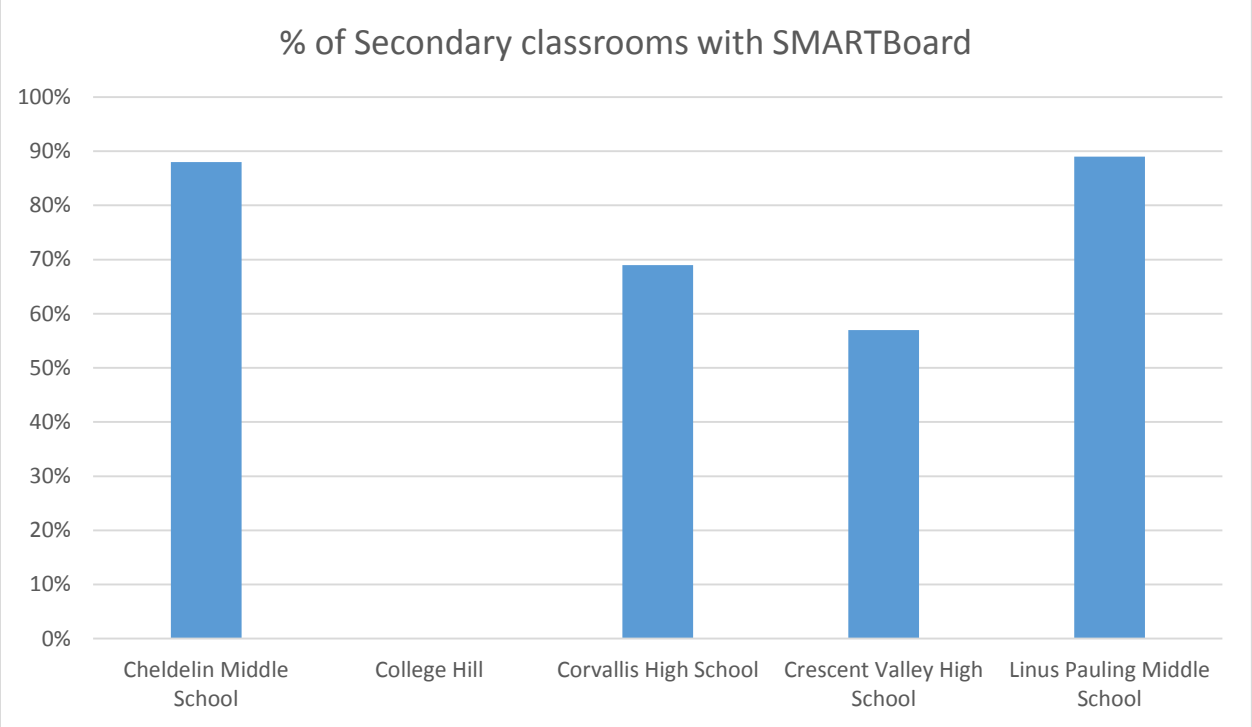
Group	Last replaced	Device Count	Next Replacement	Notes
Certified Staff	2011-12	358 (80% laptops)	2015-2016	Includes teacher tablet replacement as needed.
Classified Staff	2012-13	323 (99% desktops)	2016-2017	
Student/Libraries	2013-14	309	2017-2018	235 additional computers received RAM upgrades only in 13/14
Students	2014-15	200	2018-2019	177 additional computers received RAM upgrades only in 14/15
Certified Staff	2015-16	385	2019-2020	

Classroom projection and interactive whiteboard counts






% of Elementary classrooms with SMARTBoard
120%
100%
80%
60%
40%
20%
0%
Adams Elementary
Franklin K-8 School
Garfield Elementary
Hoover Elementary
Jefferson Elementary
Lincoln Elementary
Mt. View Elementary
Wilson Elementary


% of Secondary classrooms with SMARTBoard
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Cheldelin Middle School
College Hill
Corvallis High School
Crescent Valley High School
Linus Pauling Middle School

Detailed counts	14/15		15/16					
School	Grade Level	# Clsrms	Grade Level	# Clsrms	Carts Needed	Notes	# Minis needed	# iPads needed
Adams	2	3	2	2	-1	move to GA K	-30	
			3	3	3			90
	Total	**3**		**5**	**2**		**-30**	**90**
Garfield			K	4	4		120	
			1	4	4		120	
	2 (DLI)	3	2	3	0		0	
			3	3	3			90
	4/5 (EO)	1	4	2	1			30
			5	2	2			60
	Total	**4**		**18**	**14**		**240**	**180**
Hoover	0	0	5	3	3			90
	Total	**0**		**3**	**3**		**0**	**90**
Jefferson	4	2	4	3	1			30
	5	2	5	2	0			0
	Total	**4**		**5**	**1**		**0**	**30**
Lincoln			K	3	3		90	
			1	3	3		90	
			2	3	3		90	
			3	3	3			90
	4 (EO + DLI)	2	4	3	1			30
	5 (EO + DLI)	2	5	3	1			30
	Total	**4**		**18**	**14**		**270**	**150**

Mt. View	K	3	K	2	-1	move to 1st	-30	
	1	2	1	3	1		30	
	2	2	2	2	0		0	
	3	2	3	2	0			0
	4	1	4	2	1			30
	5	2	5	2	0			0
	Total	**12**		**13**	**1**		**0**	**30**
Wilson	3	2	3	3	1			30
			4	2	2			60
	Total	**2**		**5**	**3**		**0**	**90**
ES GRAND TOTAL		**29**		**67**	**38**		**480**	**660**
	14/15		**15/16**					
School	**Grade Level**	**# Students**	**Grade Level**	**# Students**	**Carts Needed**	**Notes**	**# Minis needed**	**#iPads needed**
Linus Pauling	6	255	6	231				-24
	7	229	7	234				5
	8	242	8	208				-34
	Total	**726**		**673**				**-53**
Cheldelin	6	196	6	165				-31
	7	194	7	187				-7
	8	201	8	176				-25
	Total	**591**		**528**				**-63**
Franklin MS	6	66	6	53				-13
	7	59	7	65				6
	8	65	8	55				-10
	Total	**190**		**173**				**-17**
MS GRAND TOTAL		**1,507**		**1,374**				**-133**