

DRAFTED 6/26/2018



**Canandaigua
City School District**

**Instructional Technology Plan
2018 – 2021**

143 North Pearl St.
Canandaigua, NY 14424

Vision

The Canandaigua City School District will lead and inspire a community of learners to fulfill their academic and creative potential.

Canandaigua City School District Mission Statement

We demonstrate our commitment to the whole child by:

- Providing rigorous opportunities in academics, the arts, and athletics;
- Supporting the social, emotional, and developmental needs of all students;
- Maintaining a focus on character development; and
- Engaging families and our community

Technology Mission Statement

The Canandaigua City School District will use technology to enhance instruction, strengthen communication, insure security and increase efficiency of operations while providing opportunities for students and staff to acquire the skills and knowledge necessary to succeed in an increasingly technology based global society.

Technology Vision Statement

It is the vision of the Canandaigua City School District to create an environment where students, teachers and staff have safe, secure, and reliable access for all to technology that fosters creativity, critical-thinking and higher learning. Teachers will be facilitators of student learning through proficient and meaningful use of learning technologies to address multiple learning styles, to motivate and engage students, and to support student exploration and growth. Staff will also leverage technology to enable the most efficient and effective administration of K-12 education.

Executive Summary

This technology plan outlines instructional technology goals for the next three years. These goals were developed in alignment with all of the District's overall and technology specific mission and vision statements. This plan is a living document that will continue to be revised as needed. It is intended to be flexible, yet specific enough to act as a guide in decision making.

Students leaving our school will be expected to enter higher education or the workforce equipped to solve complex problems, function collaboratively with diverse groups, give back to our society, and be prepared to use technology in meaningful ways.

This technology plan outlines the next steps needed to enhance learning in the classroom and prepare students with the necessary technological skills to be successful

beyond their experience in Canandaigua Schools. The plan is developed from the strong belief that technology can significantly enhance the learning environment and improve teaching and learning to develop graduates who are college and career ready citizens.

The District Technology Committee worked throughout the 2017- 2018 school year to help identify technology goals for the 2018-2021 school years. This group utilized the District's Plan for Excellence, our 5 year strategic plan along with the approved Smart Schools Investment Plan that has been approved by NYSED to help identify four critical district-wide technology priorities.

Technology Environment

The Canandaigua City School district maintains a robust network infrastructure. The workstation cabling consists of a mix of Cat 5E and Cat 6 UTP Copper cabling run back to distributed IDFs throughout each building. These IDFs are connected to a building MDF via redundant single-mode fiber cabling. The building campuses are connected via single-mode fiber in a redundant loop configuration providing multiple physical paths to each of the major buildings. All district switches provide at least 1Gbps connections. The connections between IDFs and building campuses are connected with at least (2) 10 Gbps connections for redundancy. Network infrastructure is monitored and performance logged in near real-time. All critical alerts are emailed and SMS to IT support staff. The primary MDF for the district is found at the Primary-Elementary campus and is referred to as the Network Operations Center (NOC). This location houses the physical and virtual infrastructure needed to support the district data and communications systems. A secondary district MDF is located in the Middle School to provide redundancy for most major systems in the NOC.

Building Technology

Each classroom throughout the district is equipped with a presentation station consisting of a desktop computer and interactive whiteboard. Each student in grades 1-12 are issued a touch enabled Chromebook. Each student in Kindergarten is issued an iPad. Students in grades 6-12 are allowed to take their devices home each night and during vacations including summer break. Students in grades Kindergarten-5 keep their devices in classroom carts at night and on all breaks. Each student keeps their assigned devices from grades 4-12 from year to year. Each of these devices are replaced by the district every 3 years. There are also several Windows computer labs throughout the district to support additional computing needs, such as engineering, business and programming classes.

The Major District Technology Goals for 2018 – 2021

1. Implement a comprehensive instructional technology program which supports, extends and individualizes learning opportunities for all students in an effort to attain academic performance improvements. Provide educators the support needed to utilize technology to deliver instruction, enhance communication, and promote positive collaboration through the application of the districts recently developed K-12 Digital Literacy Skills map. Empower students through the ethical and safe use of a variety of technological tools to enrich their learning by collaborating so they will be prepared for working effectively in a global community.
2. Provide technology Infrastructure will adequately support the integration of devices necessary for enhanced student learning, administrative needs, school security, and communication. This will include sustainability of the current technologies along with the support of new and emerging technologies.
3. Provide families with support to assist with student academic success with the technology. This will include resources for academic support through parent nights, open house sessions, Schoology our learning management system and the website.

Canandaigua City School District Technology Committee (DTC)

The committee is chaired by the Director of Technology and membership consists of parents, building administrators, board members, District office personnel, and teacher representatives from all buildings. The role of DTC members is to make technology recommendations to District administration for consideration. Whenever a recommendation is to be considered, appropriate input from the building is sought. An additional role is to keep all parties informed of the technology related processes, procedures, and decisions under consideration. The DTC meets monthly in order to accomplish its responsibilities.

The District Technology Committee (DTC) Responsible for:

- Writing, overseeing, and revising of the District's Comprehensive Instructional Technology Plan.
- Utilizing the Plan for Excellence (The districts 5 year strategic plan), data, the districts defined purposes for technology guidelines and ideas from staff, students and parents to make technology policy and budgetary suggestions for the district.

- Working closely with the Professional Development Committee in surveying and defining the technology training needs of staff.

The Committee will also be responsible for evaluating its own effectiveness and will remain flexible in its function to accommodate changing needs.

The Guiding Principles of Technology in CCSD

Technology at Canandaigua City School District will:

- Enable graduating students to have the necessary technology skills and proficiencies to be successful in the workforce and/or higher education.
- Be integrated into all areas of the curriculum to meet the needs of all learners.
- Support ongoing staff development opportunities.
- Be current, available and accessible to all students, faculty, staff and administration.
- Improve the effectiveness of administrative tasks.
- Be used to collect, assess, and share performance information.
- Provide access to global information resource.
- Will be periodically re-evaluated to ensure that we are providing the most effective teaching and learning tools to our students and staff within the districts means.
- Will include technology training to all students, faculty, staff and administration in an effective, systematic, and ongoing manner.
- Be secure, stable, reliable, inventoried, and well-maintained, including the use of appropriate back-up systems.
- Provide differentiated technology-based learning options to meet individual needs of students; explore alternative delivery of distance learning options for students, and; provide students with anytime/anywhere access to electronic content to support classroom instruction.

District Technology Committee Membership (2017 – 2018)

Dan Bowman – Director of Technology (Co-Chair), Parent

Tracy Lindsay – School District Data Specialist (Co-Chair)

Michele Pedzich - Community Member, Parent

Matt Schrage - Assistant Superintendent of Instruction

Stephanie Knapp – Director of Special Programs

Vern Tenney – High School Principal, Community Member, Parent

Katie McFarland – Director of Staff Development, Community Member, Parent

Steve Holmes – Technology Staff Developer, Community Member

Rose Rhode – Technology Support, Community Member

Greg Kane – High School Music Teacher
Dave Platten – High School Science Teacher, Community Member, Parent
Keith Pedzich – High School English Teacher, Community Member, Parent, Technology Staff Developer
Melanie Dyroff – Middle School Media Specialist
Caroline Chapman – Middle School Social Studies Teacher, Technology Staff Developer
Jean Cirone – Primary-Elementary Teacher (Grade K)
Heather Carson – Primary-Elementary Teacher (Grade 3), Community Member, Parent
Joan Lambert - Primary-Elementary Teaching Assistant, Technology Staff Developer
John Arthur - Middle School Principal, Community Member, Parent
Emily Tatar - Primary-Elementary Vice Principal

Students with Disabilities or Specialized Needs

Technology is a beneficial tool for Students with Disabilities and English as a New Language students. Integration of technology allows them to participate, interact and work independently using a wide range of assistive tools and devices. The district's Special Education Department works directly with the District Technology Coordinator to ensure that assistive technologies are available for all students who require their use, and both departments collaborate to make sure that the technical requirements of each student's IEP are met. The district uses the devices assigned to each student in a variety of ways to serve the needs of these students with varying needs. Many students have specific technology accommodations written into their IEP as a result of a BOCES assistive technology specialist evaluation. Some of these technologies that are used daily by this population of students include text to speech, speech to text, magnification, contrast enhancement and touch devices. Software that can adjust to the individual level of learning automatically through automated assessment is used throughout instruction in the district which self-levels the rigor for each student based on their skills. A couple of titles that are used in this way include iReady and Zearn.

Professional Development

Ongoing professional development is a critical component of the district's Instructional Technology Plan. The district provides a wide range of professional development each year for our teachers, teaching assistants, administrators, and other staff. Some of these training topics include the instructional integration of both hardware and software. Some of the key technology professional development opportunities offered include the use of tablets, Chromebooks, interactive whiteboards, G-Suite, Schoology learning management, Nearpod, WeVideo and many more. The district strongly believes that the instructional and leadership staff, along with the technical support staff need higher-level professional development in order to continue in their roles. There is currently two-

and-a-half staff members dedicated to instructional technology integration across the district. The district is committed and will continue to provide professional development on an ongoing basis to the staff to allow them to utilize the technology tools and resources in the most effective manner possible. Additional technology personnel will be needed to support the integration of the new initiatives supported by the Smart Schools Bond. These positions will be included in the district's operating budget.

The technical skill set needed by the teachers is identified and presented as expected proficiencies for students in our recently developed technology skills list. This list identifies key technology-related proficiencies or skills the students need to be successful upon graduation. Each of these proficiencies is listed along guidance to which grade levels the skill should be introduced by the teacher, demonstrated with teacher guidance or if the student should be proficient with the skill on their own.

Staff is encouraged to develop their technology skills in any of the following formats:

- Superintendent's Day and other In-Service Days – Classes in technology subjects determined by evaluation of the skills needed. These are instructed by tech integration specialists.
- Faculty and Department Meetings - Several of these meetings are dedicated to technology professional development led by tech integration specialists
- After-hour Technical Sessions (Tech Time) – 30-minute classes at each school twice a month. The classes vary on technical subjects, for example, Technology Equipment Available, SMART Board Notebook, and GAFE. They are taught by technology integration specialists, technology teaching assistants, internal teacher experts, BOCES technology specialists and other available experts in the field.
- Peer Observation – Teachers are encouraged to offer their technical skills and classroom implementations for viewing by other teachers.
- Course Work - Enrollment and completion of a District approved technology instruction learning experience. Including but not limited to online, traditional or hybrid models.
- Technology Assistant – Each school has a Technology Teaching Assistant who is available for technical help and instructional assistance.

In addition to the learning of technical skills, the teachers are also instructed in various ways of implementing these skills within their daily classroom routines.

Technology hardware, software, and trends are constantly being tracked for needed updates in skills. This data is evaluated by the Director of Technology and Director of Professional Development and their respective committees for possible changes or additions to the current offerings.

Implementation and Evaluation of the Plan

Evaluation is a key part of a successful technology plan. We have developed metrics to measure the success of the plan. The director of technology is responsible for the evaluation plan. He will ensure that the plan is monitored and adjusted to meet new or changing needs.

Goal #1

Implement a comprehensive instructional technology program which supports, extends and individualizes learning opportunities for all students in an effort to attain academic performance improvements. Provide educators the support needed to utilize technology to deliver instruction, enhance communication, and promote positive collaboration through the application of the districts recently developed K-12 Digital Literacy Skills map. Empower students through the ethical and safe use of a variety of technological tools to enrich their learning by collaborating so they will be prepared for working effectively in a global community.

Action Plan

Action Step	Responsible Stakeholder	Anticipated Date of Completion	Anticipated Cost
Install audio enhancement systems to better distribute sound evenly throughout classrooms	Director of Technology	1/2019	\$430,000
Promote the use of technology identified through the development and use of shared experiences.	Assistant Superintendent for Instruction	6/2021	\$20,000
Investigate the possibility of having an online digital citizenship elective course in the Academy.	Academy Principal	9/2020	N/A
Extend the use of MS advisory lessons to focus on digital citizenship.	Middle School Principal	6/2019	N/A

Action Step	Responsible Stakeholder	Anticipated Date of Completion	Anticipated Cost
Plan for enhanced technology integration embedded into curriculum writing	Curriculum Lead Teachers	6/2021	N/A

Indicators / Measures

- Building level technology goals will be given each quarter to stretch the level of integration that each staff member currently utilizes in their classes. This will be reported out at department and faculty meetings through share out of the lessons learned and achievements made by each staff member.
- Reports from the k-6 online diagnostic program i-Ready will be used as a benchmark for academic improvements of the students.
- Reports from the administration system of each instructional software package that offers information on usage and gained proficiencies will be distributed to the stakeholders of that system which will include teachers, Administration, and the DTC.
- All formative data from local and state assessments will be reviewed regularly by the district data review processes which have a goal in finding correlations in the technology used for achievement.
- All users are in compliance with the acceptable use policy and practice of values learned through digital citizenship lessons as measured by incidents of misuse.
- Multiple opportunities and approaches for training are available--measured by schedules of opportunities and registration data.
- An onboarding process for technology training of newly-hired staff has been implemented – measured by a survey of all new staff on the effectiveness of the orientation process a few months into employment.
- Technology training opportunities and approaches are adequate as measured by a regular staff opinion survey.

Goal #2

Provide technology Infrastructure will adequately support the integration of devices necessary for enhanced student learning, administrative needs, school security, and communication. This will include sustainability of the current technologies along with the support of new and emerging technologies.

Action Plan

Action Step	Responsible Stakeholder	Anticipated Date of Completion	Anticipated Cost
Purchase and Deploy Chromebooks and iPads for each student K-5	Director of Technology	10/2018	\$600,000
Provide a replacement for each mobile device assigned to each student and staff every 3 years	Director of Technology	9/2020	\$600,000
Replace WIFI Infrastructure to support growing WIFI needs	Director of Technology	7/2020	\$500,000
Replace the aging Interactive boards in each Classroom	Director of Technology	7/2020	\$1,200,000

Indicators / Measures

- All computers and other technologies are replaced that are below minimum standards as defined by the districts hardware replacement schedule.
- All students in grades K-12 have a personal learning device available for their learning needs – measured by inventory reports.
- All students have 24/7 access to internet resources – measured by software monitoring reports and user survey.
- Users are satisfied with the systems available for their use and the speed of access as measured by network monitoring software and user survey.
- Users are satisfied with the level of technical support as measured by user survey.
- District's technology security plan is current and in compliance with generally accepted IT standards measured by an annual security review from a 3rd party security company.

Goal #3

Provide families with support to assist with student academic success with the technology. This will include resources for academic support through parent nights, open house sessions, Schoology our learning management system and the website.

Action Plan

Action Step	Responsible Stakeholder	Anticipated Date of Completion	Anticipated Cost
Utilizing existing meetings, open houses, etc. as a venue to provide learning experiences around using our LMS as a way to access information.	Assistant Superintendent for Instruction	12/2018	N/A
Utilizing existing meetings, open houses, etc. as a venue to provide learning experiences around digital citizenship.	Assistant Superintendent for Instruction	12/2018	N/A
Utilizing existing meetings, open houses, etc. as a venue to provide learning experiences around using digital tools and access to online resources available to parents/guardians.	Assistant Superintendent for Instruction	12/2018	N/A
Continue to develop the parent portal on the website to provide easy navigation to resources that can be used to help support their children's educational goals.	Director of Technology	7/2019	N/A

Indicators / Measures

- Opportunities for parent training sessions are available – measured by schedules of opportunities and parent sign in to events.
- Multiple opportunities and approaches for parent training are available-- measured by login data reports on Schoology and Infinite Campus along with watched video tutorial and website analytics.
- Overall satisfaction with parent support will be gauged by parent survey.

Financial Plan

The Canandaigua City School District is committed to maintain the technology needed for our students, staff, and administration to provide a high quality education that enables our students to thrive in this ever growing technological world. To support the technology needs of the district, the Canandaigua City School District will use several funding sources including: Smart Schools Bond, General fund budget and E-rate as applicable. The district will also pursue state, local and federal grants as they become available.

The district has a well thought out replacement plan for each of the components that comprise the computing systems of the district. The district is making strides each year during the budgeting process to get closer to a technology budget that is able to sustain this replacement plan through efficiencies in equipment and incremental budgeting increases.

District Policies and Documents

- 7391 The Children's Internet Protection Act: Internet Content Filtering/Safety Policy
- 7390 Student Use of Computerized Information Resources
- 7315 Bullying: Peer Abuse in the Schools
- 7552 Student Privacy, Parental Access to Information, and Administration of Certain Physical Examinations to Minors
- 3320 Confidentiality of Computerized Information