



Williamsville Central School District

# Technology Plan 2018-2021

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## **Technology Plan URL:**

[http://www.williamsvillek12.org/departments/technology\\_services/2018-2021\\_technology\\_plan.php](http://www.williamsvillek12.org/departments/technology_services/2018-2021_technology_plan.php)

# Table of Contents

<b>Table of Contents</b>	1
<b>Stakeholders</b>	2
<b>Mission and Belief Statements</b>	3
<b>Vision and Goals</b>	4
District Technology Vision	4
District Technology Goals	4
New York State Survey District Strategic Goal Action Plans	5
<b>Curriculum</b>	6
Curriculum Technology Integration	6
Instructional Technology Integration Goals	6
Student Instructional Technology Literacy Strategies	6
Teacher Instructional Technology Literacy Strategies	7
<b>Professional Development</b>	9
<b>Infrastructure, Hardware, Software and Support</b>	10
Infrastructure Needs and Design	10
Hardware	11
Software	11
Increase Access	11
Technical Support	13
<b>Parental Communications and Community Relations</b>	13
<b>Monitoring and Evaluation</b>	14
<b>Williamsville Central School District Appendix</b>	16
Appendix 1 - Internet Safety Policy	16
Appendix 2 - Parents' Bill of Rights for Data Privacy and Security	16
Appendix 3 - District's planned response to an information breach	16

# Stakeholders

## **District Technology Committee**

Marie Balen, Assistant Superintendent for Instruction

Michael Calandra, Middle School Principal

Anna Cieri, Assistant Superintendent for Exceptional Education and Student Services

Tricia DeSantis, High School Assistant Principal

Lee Ferenc, Technology Integrator

Charles Galluzzo, Elementary Principal

Mark Koedel, Lead Technician

Thomas Matuski, Assistant Superintendent for Finance and Management Services

Brandon Morrissey, Elementary Library Media Specialist

Deborah Radice, Manager of Educational Technology Services and Operations

Michael Russo, Instructional Specialist

David Saia, Secondary Library Media Specialist

Heather Thuman, High School Teacher

Thomas Wagar, Parent Representative

Dan Zambito, High School Teacher

## **Superintendent's Office**

Dr. Scott Martzloff, Superintendent of Schools

Rita Wolff, Director of Communications

## **District and Building Administrators**

**Technology Integration Team**

**Assistive Technology Team**

**District and Building Staff**

**District Students and Parent**

**District Community Members**

**PTSA Council**

**Superintendent's Community Council**

# Mission and Belief Statements

## Mission Statement

The mission of the Williamsville Central School District, a community characterized by diversity, high expectations and support for learning, is to empower all students

- To develop their unique potential and character,
- To assume responsibilities of citizenship and leadership and
- To thrive in a challenging and rapidly changing global community

through the commitment of our quality staff, working in partnership with students, parents and community, and utilizing visionary programs in a nurturing environment of mutual respect and dignity.

## Belief Statements

### We believe that:

- Our highest priority is our students.
- Each person has intrinsic value.
- Communities and schools are interdependent and are only successful in an ongoing, mutually responsible partnership.
- The opportunity for learning is everywhere.
- Learning how to learn is as important as what is learned.
- Everyone can learn.
- Everyone can experience success.
- Continuous improvement of existing skills and acquisition of new skills are essential for success in a rapidly changing world.
- Positive self-esteem enhances learning.
- People who think critically and creatively will make better decisions throughout life.
- Excellence in our program requires continual evaluation.
- Optimism is essential.
- Everyone needs a global perspective to thrive in a world of diversity.
- Parent and family involvement is essential to successful learning.
- People achieve when effort and perseverance toward excellence are encouraged, supported, and celebrated.

# **Vision and Goals**

## **District Technology Vision**

Williamsville Central School District is committed to encouraging and facilitating the use of technology in ways that support student learning and achievement, improve efficiency of district operations, and encourage communication among all stakeholders within the entire school community. In addition, the district makes every effort to provide students with the 21st century tools necessary to gather and evaluate information, communicate and collaborate effectively with others, think critically and solve problems creatively, and continue to learn.

## **District Technology Goals**

### **District Goal 1 - Technology Integration**

Empower students to be productive, self-directed, and creative problem solvers through the effective use of technology.

### **District Goal 2 - School Community Connections**

Increase the effective use of digital environments to communicate and collaborate with the Williamsville school community.

### **District Goal 3 - Professional Development**

Empower educators to effectively integrate technology to support curriculum and improve student achievement.

### **District Goal 4 - Technology Equipment and Infrastructure**

Continue to support, maintain, and enhance a technology infrastructure and inventory that supports the Williamsville District's learning and work environment.

### **District Goal 5 - Technology Services**

Balance safety and security while optimizing opportunities for learning, access to information, and management of technology resources.

### **District Goal 6 - Technology Responsibility**

Ensure that technology is accessible and learning opportunities are available to all students, including students with disabilities.

### **District Goal 7- Technology Readiness**

Enhance and expand the use of technology to promote college and career readiness.

# New York State Survey District Strategic Goal Action Plans

The three goals below are derived for the annual New York State Technology Survey requirement for the the district to complete.

**NYS Strategic Goal 1** - Enhance the effective use of technology and empower students to be productive, self-directed, and creative problem solvers, promoting college, career and workforce readiness

- Action Step 1 - Develop, enhance, refine current curriculum and units of study to embed and address instructional technology goals of the district. (Curriculum)
- Action Step 2 - The instructional technology team, assistive technology team, instructional specialists and coordinators provide support and consultation to faculty and staff to facilitate the scaffolding learning opportunities for all students. (Implementation)
- Action Step 3 - Support conference attendance and develop catalog of professional development opportunities. Embed professional development into classroom instruction and provide consultation to classroom teachers to facilitate modifications and access to the curriculum. (Professional Development)

**NYS Strategic Goal 2** - Continue to support, maintain, and enhance a secure technology infrastructure that supports all facets of the educational environment.

- Action Step 1 - Establish mechanisms to comply with student rights of privacy in accordance with federal and state law. (Data Privacy)
- Action Step 2 - Protect the district's network, systems and services to include firewalls, application gateways and content filter servers on the WCSD network and an external integrated firewall on the broadband network. (Infrastructure)
- Action Step 3 - Monitor and continuously update policies, accompanying regulations and procedures as warranted by changes in law and/or identified needs. (Policy)
- Action Step 4 - A multi-year budget plan that considers infrastructure, hardware and software combined with review and inclusion of new initiatives.

**NYS Strategic Goal 3** - Empower educators to effectively integrate technology to support curriculum and instruction and provide accessible learning opportunities for all students.

- Action Step 1 - Increase teacher's quality and use of technology as a tool to improve learning, interact successfully in a 21st century skill environment and to achieve their personal, education, and workplace goals. (Professional Development)
- Action Step 2 - Provide assistive technology screening/assessment of a child with a disability in the child's customary environment. Acquire appropriate and required assistive technology devices or equipment for students with disabilities. Customize, adapt, apply, repair or replace assistive technology devices. Coordinate and use other

therapies, interventions or services in conjunction with assistive technology. Provide training and technical assistance for students with disabilities, professionals, staff, teachers and family members.(Implementation)

- Action Step 3 - To implement processes to allow for ongoing professional development and receive stakeholder feedback. (Collaboration)

## Curriculum

### Curriculum Technology Integration

#### I. Instructional Technology Integration Goals

**Curriculum Goal 1** - Students will be able to interpret and derive meaning from digital, multi-media formats such as images, videos, audio, charts, and text.

**Curriculum Goal 2** - Students will be able to produce and publish writing for an authentic audience and to interact and collaborate with others.

**Curriculum Goal 3** - Students will be able to assess the credibility and accuracy of digital sources, and synthesize information while avoiding plagiarism.

**Curriculum Goal 4** - Students will be able to create and communicate by utilizing digital media (textual, graphical, audio, visual, and interactive elements) to enhance understanding of findings, reasoning, and evidence and to add interest.

**Curriculum Goal 5** - Students will be able to digitally demonstrate understanding of STEM solutions and relationships by utilizing appropriate tools to construct viable arguments, critique the reasoning of others, and model their thinking.

**Curriculum Goal 6** - Students will be able to actively engage in appropriate online behavior and demonstrate digital safety.

**Curriculum Goal 7** - Students will be able to utilize appropriate digital tools to enhance and streamline their learning.

#### II. Student Instructional Technology Literacy Strategies

Williamsville Central School district offers various avenues of support to encourage technology integration in the classroom, employing seven full-time district Technology Integrators. Technology Integrators meet with teams of faculty members across the district to plan lessons, which infuse technology integration strategies directly tied to curriculum. The school district curriculum creates opportunities to incorporate the International Standards for Technology Education (ISTE) Standards for Students, New York State K-12 Next Generation Learning Standards and WCSD K-12 Student

Expectations with instructional technology that includes, but not limited to the following concepts:

**Empowered Learner**

Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.

**Digital Citizen**

Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.

**Knowledge Constructor**

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Innovative Designer**

Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.

**Computational Thinker**

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

**Creative Communicator**

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

**Global Collaborator**

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

**III. Teacher Instructional Technology Literacy Strategies**

All professional staff in the Williamsville Central School District utilize the district network consistently and have proficiency in:

- Basic operations file management
- Word processing communication via email
- Using web-based management software



- Using the Williamsville Information Tracking System
- Using technology for attendance, grade reporting, and instructional purposes

Instructional Technology related program goals that are articulated in the district's Professional Development Plan include:

- Increase teacher's quality and use of instructional technology as a tool to improve learning, interact successfully in a future ready skill environment and to achieve their personal, educational, and workplace goals.
- Continue to incorporate and employ instructional technology related strategies to empower student academic success and understanding
- Teachers will be exposed to increased amounts and quality of technology integrations, which are connected to research-based strategies and content and performance standard specific areas with the intention of improving student achievement/learning
- Increase educator's competencies to effectively use technology tools to support the curriculum and empower teachers with future ready technology skills.

The district will continue strive for a foundational level of instructional technology fluency for teachers to incorporate into their professional learning, along with the becoming proficient with utilization of best practices and tools to support the International Standards for Technology Education (ISTE) Standards for Educators, New York State K-12 Next Generation Learning Standards and Google Level 1 and 2 Educator foundational skills with instructional technology that includes, but not limited to the following concepts:

#### **Learner**

Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning.

#### **Leader**

Educators seek out opportunities for leadership to support student empowerment and success and to improve teaching and learning.

#### **Citizen**

Educators inspire students to positively contribute to and responsibly participate in the digital world.

#### **Collaborator**

Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems.

**Designer**

Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.

**Facilitator**

Educators facilitate learning with technology to support student achievement of the ISTE Standards for Students.

**Analyst**

Educators understand and use data to drive their instruction and support students in achieving their learning goals.

## Professional Development

All professional staff in the Williamsville Central School District utilize the district network consistently and have proficiency in:

- Basic operations file management
- Word processing communication via email
- Using web-based management software
- Using the Williamsville Information Tracking System
- Using technology for attendance, grade reporting, and instructional purposes

Technology related program goals that are articulated in the district's Professional Development Plan include:

- Increase teacher's quality and use of technology as a tool to improve learning, interact successfully in a 21st century skill environment and to achieve their personal, educational, and workplace goals. Continue to incorporate and employ technology related strategies to empower their academic success and understanding as related to the ISTE Standards for teachers.
- Teachers will be exposed to increased amounts and quality of technology integrations, which are connected to research-based strategies and content and performance standard specific areas with the intention of improving student achievement/learning
- Increase educator's competencies to effectively use technology tools to support the curriculum and empower teachers with 21st century technology skills.

The district provides robust professional development on instructional technology best practices aligned with the SAMR model implementation. These best practices are introduced and reinforced on an annual basis through the following:

- The district has an instructional technology team assigned to cover the district to support and facilitate instructional technology goals with staff and students.
- The goals are aligned to district, school and classroom goals.
- The district supports a robust professional development catalog for staff further their professional learning opportunities with regards to integrating instructional

technology strategies into their lessons.

- Staff development is embedded during scheduled work days for those teachers involved in the Mobile Device Learning Program (MDLP).
- There are weekly technology integrator coaching sessions offered from September to May to reinforce district initiatives and facilitate collaborative learning.
- Arrangements are made for instructional technology needs to be addressed across various stakeholder groups.
- The District provides students with special orientation programs at grade levels to introduce the devices, technology choices available to students and reviews acceptable use policies that are applicable to the assigned devices.
- Parent Professional Development to be offered annually with a separate night to focus on each level of elementary, middle and high school.

## **Infrastructure, Hardware, Software and Support**

### **Infrastructure Needs and Design**

The Williamsville Central School District consists of District Office, six elementary schools, four middle schools, three high schools, one alternative school and a facility building.

Williamsville Central School District provides technology services to six elementary schools, four middle schools, three high schools, Alternative Instructional Model (AIM), a district office, transportation center, and a district facilities building. Fiber connects these areas to district servers housed at South High School with backup servers housed in the district office. The district utilizes the regional broadband network available through the Western New York Regional Information Center. The broadband network provides the district with access to Internet services and the resources at the regional information center. Our standard desktops and laptops are PC's running Windows, although Macintosh computers running are also utilized in various appropriate settings. Students, teachers, staff, and administrators are provided with an information environment that is technologically efficient and allows access to a global variety of resources.

Each building contains a variety of spaces that are designed to meet the needs of students, staff, administrative and community needs with regards to utilizing technology for instruction,

communication and management of buildings. All classrooms have local network and Internet access.

To protect the district's network, systems and services, an Internet barrier has been installed separating the WCSD network from the Western New York Regional Information Center and outside networks. This barrier is comprised of firewalls, application gateways and content filter servers on the WCSD network and an external integrated firewall on the broadband network.

The district utilizes Voice over Internet Protocol (VoIP) infrastructure for Unified Communication, using Skype for Business. Two-way messaging systems that operate on a private wireless network have also been deployed to support efficiency, and give the district an emergency communications system.

To protect sensitive server and SAN equipment the District has constructed two (2) server rooms. The areas have been dedicated to this purpose and include environmental controls including conditioned power, air conditioning and dedicated alarms. One server room serves as the core of the WAN, the other for backup and disaster recovery. Both have been upgraded to include a dedicated backup generator with power conditioning.

## **Hardware**

The Williamsville Central School District maintains computer hardware and supports replacements as necessary on an annual basis with responsible fiscal planning and purchasing. The vast size of the district demands proper hardware and infrastructure to meet the demands of staff, students, parents and community members. District priorities are placed on servers, network, communication equipment and instructional devices. Technology hardware requests are collected by WITS electronically and reviewed on an ongoing basis. The district currently has a high concentration of Windows computers and Chrome OS devices. The district also supports IOS devices at our early primary grades.

## **Software**

The Williamsville Central School District provides access to a wide variety of instructional and management software programs, licenses and applications for staff and students to utilize. An on-going review of software licenses for compliance takes place year round, along with tracking of inventory inside our Williamsville Information Tracking System (WITS). Technology software requests are collected by WITS electronically and reviewed on an ongoing basis. Instructional software varies at the levels, but provides equitable access across the district to meet the needs of our students and teachers.

## **Increase Access**

The Williamsville Central School District understands and supports the needs of students, staff, parents and community members to access our network and resources provided. Therefore, our current wifi system allows for both guest access through a captive portal for

parents and community members, as well as secure access for staff and students. In addition, the availability of cloud services and virtual private networks allow for remote file access outside of the district, as well as within. The district allows for technology equipment, including mobile devices, to be loaned out to staff and students to broaden access and capacity.

A detailed process for assessing home use is also in place. Data is routinely collected to determine consistency of use. Appropriate agreement forms have been developed to serve as a contract between the parent/guardian and District to ensure, to the greatest extent possible, that the device is being used properly and software licensing requirements are adhered to.

The District's Technology Plan includes technology use for all students including students with disabilities. Advances in the development and use of assistive technology have provided new opportunities for children with disabilities to access their educational programs and facilitate student achievement. Federal Regulation (34 CFR 300.308) requires each school district to ensure that assistive technology (AT) devices and/or services are made available to a preschool or school age student with a disability when recommended by the Committees on Special Education and as described in the Individualized Education Program (IEP). The District:

- Purchases AT hardware & software tools
- Convenes a multi-disciplinary district AT team
- Identifies an AT Process to include a referral, assessment, trial and implementation process
- Provides ongoing staff development, training and equipment maintenance

When the need warrants, a comprehensive AT Assessment is conducted and more unique or complex AT solutions are considered and made available for use when required. These items help assess the effectiveness of AT items in addressing learning outcomes. Items are borrowed for student use from an AT Loan Closet within the school district. An extensive range of medium-high AT devices and software programs are included in the loan closet inventory, such as: customizable keyboards, mouse emulation devices, augmentative communication devices, positioning items, voice dictation software, typing efficiency programs, and screen readers. The AT Loan Closet is available district wide for grades K-12.

Assistive technology services include:

- Assistive technology screening/assessment of a child with a disability in the child's customary environment
- Acquiring appropriate and required assistive technology devices or equipment for students with disabilities
- Customizing, adapting, applying, repairing or replacing assistive technology devices
- Coordinating and using other therapies, interventions or services in conjunction with assistive technology

- Training and technical assistance for students with disabilities, professionals, staff, teachers and family members

The Assistive Technology Team has received specialized training in Assistive Technology and is available as a resource to district personnel. The Williamsville School District's Assistive Technology Team works with a child's school team to conduct a functional evaluation of the child in his/her customary environment. School teams may consider and implement AT trials of equipment as part of the AT consideration process.

On an annual basis (and more often should needs warrant) student progress is reviewed by the Committee on Special Education. Use of the particular tool or device is evaluated to assess appropriateness and efficacy, as well as recommend changes and/or discontinuance as determined by the data and observations presented.

Finally, a detailed process for assessing home use is also in place. Data is routinely collected to determine consistency of use. Appropriate agreement forms have been developed to serve as a contract between the parent/guardian and District to ensure, to the greatest extent possible, that the device is being used properly and software licensing requirements are adhered to.

## **IV. Technical Support**

The Williamsville Central School District supports computer support technicians and the building level and micro-computer support technicians at the district level to support the technical needs of the district. The district tracks and completes "Requests for Help or Work Orders" electronically through the Williamsville Information Tracking System (WITS). In addition, the Technology Services office has clerical support along with WITS programmers supervised by the Manager of Technology Service Operations.

## **Parental Communications and Community Relations**

The technology plan is disseminated to the community first as a presentation to the Board of Education, then posted on the District's website. The District's website ([www.williamsvillek12.org](http://www.williamsvillek12.org)) is the main communication portal for parents and community members to retrieve various information.

Parents and students have access to the Williamsville Information Tracking System (WITS), a locally developed intranet resource which provides information access and connections including: building news, building calendars, environmental tips, library links to online catalogs, tools, and databases, online report cards, online progress reports, online parent conference scheduling, state assessment results, student attendance, student classroom grades, student clubs and activities, student graduation requirements, student schedules, student showcases, teacher instructional pages for homework, calendars, documents and links, WITS Mail (an internal email communication for students, parents, and teachers).



# Monitoring and Evaluation

Evaluating and implementing the technology plan will be the responsibility of the Technology Services Advisory Team (Assistant Superintendent for Instruction, the Assistant Superintendent for Finance & Management Services, and the Assistant Superintendent for Exceptional Ed and Student Services, the Technology Integrator Team Leader, the Manager of Educational Technology Services & Operations, and Lead Technician. As we assess the achievement of our goals, we will continually review and adjust our plan to meet the rapidly occurring changes in technology. The Assistant Superintendents will address unmet goals with appropriate members of the school community based on the area needing improvement. The evaluation strategies below will allow the Williamsville Central School District to measure and analyze the infusion of technology by all learners, and to assess the effectiveness of the technology plan on student achievement.

- Meetings of the district Technology Committee (three times per year) to review the technology plan's progress and to make reports, recommendations and/or adjustments with appropriate staff and constituents.
- Regular meetings with Technology Integrators to review the Plan's progress.
- Monthly meetings with Technology Services Advisory Team to coordinate actions and make connections with the technical and educational implementation of the Technology Plan.
- Regular meetings with district Computer Support Technicians (bi-monthly) to monitor technical implementation of the Technology Plan. Technology Plan presentation to the Board of Education at least one time per year.
- Observation in classrooms and review of data to assess student learning.
- Formal and informal surveys to staff and students.
- Requests for anecdotal information on the use of technology as an instructional and informational tool.
- Example lesson plans and student examples of technology integration
- Periodic reviews of Technology Plan with building administrators and Instructional Specialists
- Regular review of technology-based professional development opportunities.
- Follow-ups at the building levels as to the progress of technology integration and support in the curricular areas.
- Review of data from district website and WITS (Williamsville Information Tracking System) to monitor related Technology Plan goals
- Revised policies, procedures, roles and other related documentation.

Examples of evidence that can be used to determine the technology plan's progress and success might include:

- Student portfolios
- Student products

- District developed technology assessments and surveys
- District staff and student survey results
- Enrollment in in-service education programs
- Community participation on planning teams Community feedback
- Community support through the voting process
- Data from district website and WITS



## V. Williamsville Central School District Appendix

### Appendix 1 - Internet Safety Policy

- [Policy 8271](#)
- [Policy 7315](#)

### Appendix 2 - Parents' Bill of Rights for Data Privacy and Security

- [Parents' Bill of Rights](#)

### Appendix 3 - District's planned response to an information breach

- [Policy 5672](#)