



Dunkirk City School District 2015-18 Instructional Technology Plan

A. LEA INFORMATION

1. Total student enrollment based on the most recent (2013-14) BEDS Day submission 2075 <https://data.nysed.gov/enrollment.php?year=2014&instid=800000054353>

2. Student enrollment by grade band based on the most recent BEDS Day submission

GRADE BAND	ENROLLMENT
PreK	74
Grade K-2	484
Grades 3-5	450
Grades 6-8	456
Grades 9-12	589
Ungraded	22

3. Name of the district administrator entering the technology plan survey data Judy Diem

4. Title of the district administrator entering the technology plan survey data Director of Technology



B. INSTRUCTIONAL TECHNOLOGY VISION AND GOALS

1. District Mission Statement The focus of this Instructional Technology Plan is to ensure all students graduate with the skills needs for 21st century college and career readiness. The following vision and goals were developed in accordance with the district mission statement posted on the Dunkirk City School District website (<http://dunkirkcsd.org>)

The mission of the Dunkirk City School District, through mutual cooperation and shared responsibility with the entire community, is to empower all students to clearly perceive their goals while developing their skills, knowledge and values to become lifelong learners, and independent, productive citizens in a multicultural world.

2. Instructional Technology Vision & Goals Students will attain the technological aptitude to become 21st century-skilled global citizens and wise users of a technological tool chest in college and career environments through creative instructional methods.

SMART Schools Commission Keys to Success	SMART Goals Specific, Measurable, Attainable, Relevant, Time-bound
Expansion of Online Learning	By June 2018 all students, including those with disabilities and ELLs, will have access anywhere, anytime, to documents created during the school day By June 2018 all students, including those with disabilities and ELLs, will have access to course content anywhere, anytime By June 2016 all students, parents, and teachers will have access to a video library of Common Core lessons created by the School #3 faculty By June 2017 all students, including those with disabilities and ELLs, will have access to a digital resource toolkit housed on the district website
Utilization of Transformative Technologies	By June 2018 all students, including those with disabilities and ELLs, will have access to transformative technologies (laptops) throughout the school day
Connectivity of Every School to High-Speed Broadband	By June 2018 all students, including those with disabilities and ELLs, will be able to utilize transformative technologies (laptops, iPad) at all times throughout the school day without interruption of service
Extension of Connectivity to Community	By June 2017 all students, including those with disabilities and ELLs, will have free off-campus access to licensed software and web-based applications By June 2018 high school students will be able to use the Marauder News studio for morning news broadcasts daily, and evening programming will be done 2 times a week in partnership with community members
Provision of High-quality PD to Teachers, Administrators, and Staff	By June 2018 all staff will attend at least 1 technology integration workshop By June 2018 a minimum of 2 teachers at the elementary level, 2 teachers from the MS, and 2 teachers from the HS will be MOS (Microsoft Office Specialist) certified



		<p>By June 2018, 100% of staff will be trained in digital citizenship</p> <p>By June 2017 all staff teaching students with disabilities will have received formalized training in assistive technologies used by their students</p>
	<p>Focus on In-Demand STEM and 21st Century Learning Skills</p>	<p>By June 2018 all graduating seniors will have access to a digital portfolio</p> <p>By June 2018 10% of graduating seniors will have MOS certification by the time they graduate</p> <p>By June 2018 all students, including those with disabilities and ELLs, will graduate having received formalized instruction in productivity software</p> <p>By September 2017 School #6 (currently vacant) will be renovated and transformed into a PTECH 9-14 college and career academy, built in cooperation with local businesses and Jamestown Community College to meet the current and projected manufacturing workforce needs in Chautauqua County. (The current PTECH curriculum and technologies are aligned directly with local manufacturing businesses including, but not limited to, Cummins, Titan X, Lakeside Precision, Ring Precision, Excelco Newbrook, and Trucklite</p>

3. Planning process used to develop the instructional technology plan

<p>Planning Process Used to Develop Instructional Technology Plan</p>
<p>Continuation of technology plan development meetings. Committee met 4 times during the current school year.</p> <p>Meetings included the following stakeholders:</p> <ul style="list-style-type: none"> - Director of Technology - Director of Special Education - Director of P TECH Program - Parent - Elementary teacher - MS teacher - MS Technology Education teacher - Hs library media specialist - HS ESL teacher - HS SPED teacher - Public library director - SUNY Fredonia college professor / literacy specialist - (student – unable to attend these meetings – will recruit for next year) - Professional Development Committee chairperson <p>Met to discuss the following:</p> <ul style="list-style-type: none"> ● Review of current instructional technology plan ● Revision of goals ● Development of action steps ● Ways to leverage resources of additional partners to increase technology integration between school, the community, and the region



- The development of a sequential professional development plan for staff, students, and community members

Outcomes of these meetings include:

- Revision of goals
- Adjusted timelines for completion
- Expansion of technology plan development committee to include additional stakeholders
- The inclusion of digital citizenship in the professional development committee's summer training schedule
- Ways to involve more partners to achieve the goals listed in the tech plan

Continuous technology planning meetings were held with the district business manager and BOCES staff on the following topics:

- Network upgrade planning
- Hardware replacement cycles
- Current and future technology purchases

4. Source(s) of any gap between the current level of technology and the district's stated vision and goals

- Access Points
- Cabling
- Connectivity
- Device Gap
- Network
- Professional Development
- Staffing

5. Based upon answer to question four, the top three challenges that are causing the gap

Funding
Network capability
No consistent training for teachers, administrators, and staff on technology skills needs for 21st century learning



C. TECHNOLOGY AND INFRASTRUCTURE SUPPORT

1. Available network broadband bandwidth	NETWORK BROADBAND BANDWIDTH	Minimum Capacity (Expressed in Mb or Gb)	Maximum Capacity (Expressed in Mb or Gb)
	Network Bandwidth: Incoming connection TO district schools (WAN)	1Gb	1Gb
	Internal Network Bandwidth: Connections BETWEEN school buildings (LAN)	1Gb	10Gb
	Bandwidth: connections WITHIN school buildings (LAN)	1Gb	1Gb

2. Total contracted Internet Access bandwidth for district (speed configured to get from the district hub out to the Internet) 1Gb / 1Gb

3. Name of agency or vendor that district purchases its primary Internet access bandwidth service from WNYRIC / Erie 1 BOCES

4. Wireless protocols available in the district; Wireless protocols currently in use	WIRELESS PROTOCOLS	Available	In Use
	802.11a		
	802.11b	✓	✓
	802.11g	✓	✓
	802.11n	✓	✓
	802.11ac		



	802.11ad		
	802.11af		

5. Wireless access points in use in the district Yes

5a. Percentage of district's instructional space with coverage 100%

6. Wireless controller in use Yes

7. Port speed of the switches that are less than five years old in use in the district 1Gb

8. Computing devices, less than five years old, in use in the district (Include only devices used for instructional purposes)	COMPUTING DEVICES	Number of Devices in Use That Are Less Than Five Years old	Number of These Devices Connected to the LAN
	Desktop Computers / Virtual Machine (VM)	409	409
	Laptops / Virtual Machine (VM)	288	288
	Chromebooks		
	Tablets less than nine (9) inches with access to an external keyboard		
	Tablets nine (9) inches or greater with access to an external keyboard	237	237
	Tablets less than nine (9) inches without access to an external keyboard		
	Tablets nine (9) inches or greater without access to an external keyboard	30	30

9. Percentage of total number of students with disabilities in district provided with assistive technology as documented on their Individualized Education Programs (IEPs)	Percentage of Students with Assistive Technology as Documented on Their IEPs	Assistive Technologies Provided
	48%	Access to alternative methods of writing
		Calculators
		Provision of text in accessible formats
		Access to Word processor



		Access to augmentative communication
		Picture communication system

10. Any additional assistance or resources that, if provided, would enhance the district's ability to provide improved access to technologies, including assistive technologies, for students with disabilities

Funding for professional development on text-to-speech and other assistive technologies available in the district

11. Number of peripheral devices, less than five years old, in use in the district	PERIPHERAL DEVICES	Number of Devices in Use That Are Less than Five Years Old
	Document Cameras	74
	Flat Panel Displays	
	Interactive Projectors	9
	Interactive Whiteboards	2
	Multi-function Printers	25
	Projectors	123
	Scanners	2
	Other Peripherals	2 Lifesize Units

12. Description and number of "Other Peripheral Devices"

2 Lifesize Units

13. Asset inventory tagging system present in district

Yes

14. District allows students to BYOD (Bring Your Own Device)

No

15. District has provided for the loan of instructional computer hardware to students legally attending nonpublic schools pursuant to Education Law, section 754

Yes



D. SOFTWARE AND IT SUPPORT

1. Operating system(s) in use throughout the district	OPERATING SYSTEMS	In Use
	Mac OS Version 9 or earlier	No
	Mac OS Version 10 or later	Yes
	Windows XP	No
	Windows 7.0	Yes
	Windows 8.0 or greater	Yes
	Apple iOS 7 or greater	Yes
	Chrome OS	No
	Android	No
	Other	No

2. Name of operating system if response to question #1 included "other" n/a

3. Web browsers, both available and supported, for use in district	WEB BROWSERS	Available and Supported for Use
	Internet Explorer 7	No
	Internet Explorer 8	No
	Internet Explorer 9 or greater	Yes
	Mozilla / Firefox	Yes
	Google Chrome	No
	Safari (Apple)	Yes
	Other	n/a

4. Name of web browser if the response to question three included "other" n/a



5. Name of learning management system (LMS) most commonly used in the district None used

6. Five most commonly used software programs used that support classroom instruction in the district	Five Most Commonly Used Software Programs that Support Classroom Instruction	
	Productivity software	
	Diagnostic and formative assessment systems	
	Supplemental reading programs	
	Supplemental math programs	
	Digital curriculum	

7. Five most frequently used research databases	Five Most Commonly Used Research Databases	
	World Book Online	
	Webpath Express	
	Grolier Online	
	Gale Academic	
	Discovery Education	

8. Existence of a Parent Portal Yes

8a. Applications of Parent Portal, if response to question eight was "yes"	USES OF PARENT PORTAL	
	Attendance	<input checked="" type="checkbox"/>
	Homework	<input checked="" type="checkbox"/>
	Student schedules	<input checked="" type="checkbox"/>
	Grade reporting	<input checked="" type="checkbox"/>
	Transcripts	<input checked="" type="checkbox"/>
	Other	<input checked="" type="checkbox"/>



9. Additional technology-based strategies and tools, besides the Parent Portal, are used to increase parent involvement	Additional Technology-Based Strategies and Tools Used to Increase Parent Involvement	
	Learning Management System	n/a
	Emergency Broadcast System	✓
	Website	✓
	Facebook	✓
	Twitter	n/a
	Other	TV Station

9a. Additional information, if "other" was one of the responses checked TV Station

10. Title and FTE count of all staff primarily responsible for technical support	TITLE	Current FTE's
	Director of Technology	1.0
	Department Secretary	1.0
	Senior LAN / WAN Technical Support Specialists (BOCES)	0.8
	Microcomputer Technical Support Specialists (BOCES)	2.0



E. CURRICULUM AND INSTRUCTION

1. District's plans to use digital connectivity and technology to improve teaching and learning

SMART Schools Category	Plans to Use Digital Connectivity and Technology to Improve Teaching and Learning
Online Learning	To expand online learning to allow for students to access content and projects outside of the school day, anywhere, anytime.
Transformative Technologies	To increase availability of transformative technologies so that students will be able to advance at their own pace.
Connectivity Between Schools	To increase wireless capability to serve every student without interruption of service.
Connectivity Outside of Schools	To partner with the Dunkirk Public Library and other community organizations to allow all students equal access to technology and internet-based resources.
Professional Development	To provide high-quality, continuous professional development to teachers, principals, and staff to ensure successful integration of 21 st century learning and STEM skills into all teaching and learning
21 st Century Learning and STEM Skills	To ensure all students graduate with skills needed for success in the 21 st century workplace.

2. How the district's instructional technology plan addresses the needs of students with disabilities to ensure equitable access to instruction, materials, and assessments

Yes
Dunkirk City School District currently has assistive technologies in place to ensure students with disabilities have equitable access to instruction, materials, and assessments. These include, but are not restricted to:

Access to alternative methods of writing
Calculators
Provision of text in accessible formats
Access to word processor
Access to augmentative communication tools
Access to picture communication systems

The goals listed in this plan focus on expansion of online learning, utilization of online learning, connectivity of every school to high-speed broadband, extension of connectivity to the community, provision of high-quality PD to teachers, administrators, and staff, and a focus on in-demand STEM and 21st century learning skills will benefit students both in the general education and special education curriculums. These goals were developed to ensure all students are successful in the 21st century world after they graduate.



3. District's instructional technology plan addresses the provision of assistive technology specifically for students with disabilities to ensure access to and participation in the general curriculum	Yes Included in the plan is the goal of having all staff teaching students with disabilities formally trained in assistive technologies currently present in the district.
4. District's instructional technology plan addresses the needs of English Language Learners	Yes The goals listed in this plan focus on expansion of online learning, utilization of online learning, connectivity of every school to high-speed broadband, extension of connectivity to the community, provision of high-quality PD to teachers, administrators, and staff, and a focus on in-demand STEM and 21st century learning skills. These are for students in the general education, special education, and ELL programs. They were developed to ensure all students are successful in the 21st century world after they graduate.



F. PROFESSIONAL DEVELOPMENT

1. Summary of professional development offered to teachers and staff, for the time period covered by this plan, to support technology to enhance teaching and learning	Topics	Audience	Method of Delivery
	Training for staff in digital citizenship	Faculty Staff Administrators	Online module Small group academy
	Training in assistive technologies currently available	Faculty Staff Administrators	Small group Instruction Individualized coaching Newsletter publication
	Training for all staff in productivity software	Faculty Staff Administrators	Small group instruction Individualized coaching Newsletter publication
	Training for School #3 Faculty in video creation and archiving	School #3 Faculty	Small group instruction Individualized coaching
	Training for all staff in toolkit applications	Faculty	Small group instruction Newsletter publication
	Training for personnel at public library in software and web-based applications made available to students at this location	Public Library Personnel	Small group instruction Individualized coaching
	Training in cloud-based application, if purchased	Faculty Staff Administrators	Small group instruction BOCES trainers Individualized coaching
2. Title and FTE count of all staff whose primary responsibility is technology integration training and support for teachers	TITLE	Current FTE Count	
	Director of Technology	1.0	
	Director of PTech Program	1.0	
	CSLO Instructional Software Staff Development	6 on-site days per year	



G. TECHNOLOGY INVESTMENT PLAN

1. Top five planned instructional technology investments in priority order over the next three years		Anticipated Item or Service Drop Down Menu	Estimated Cost	Is Cost One-Time or Annual?	Potential Funding Source
	1	Wi-Fi Upgrade	\$375.00	One-Time	E-Rate SMART Bond
	2	Desktop Replacements	\$35,000	Annual	BOCES, state-aided hardware / software
	3	Laptop Replacements / Additions	\$40,000	Annual	BOCES, state-aided hardware / software, grants, Smart Schools Bond Act
	4	Professional Development	\$9,000	Annual	BOCES Grants
	5	Other (PTech 9-14 College and Career Academy)	\$200,000	One-Time	SMART Bond Capital Project

2. Specify if "other" was selected PTech facility -



H. STATUS OF TECHNOLOGY INITIATIVES AND COMMUNITY CONNECTIVITY

1. Developments, since last technology plan, that affect the current status of the technology initiatives		Developments Affecting Current Status of Technology Initiatives
		Changes in district enrollment
	✓	Changes in staffing
		Changes in funding
		Technology plan implementation
		Computer-based testing
		Catastrophic events
	✓	Developments in technology
	✓	Changes in legislation
		Other
	None	

2. How the district plans to increase student and teacher access to technology in school, at home, and in the community	SMART Schools Commission Keys To Success	Plans to Increase Student and Teacher Access to Technology in School, at Home, and in the Community
	Online Learning	To expand online learning to allow for students to access content and projects outside of the school day anywhere, anytime by adopting a cloud-based solution for both staff and students.
	Transformative Technologies	To increase availability of transformative technologies so that students will be able to advance at their own pace by purchasing additional laptops for use at both the elementary and secondary levels
	Connectivity Between Schools	To increase wireless capability to serve every student without interruption of service by increasing number of access points and by upgrading the network to a new standard and multi-user MIMO
	Connectivity Outside of Schools	To extend accessibility of software and other digital resources to the public library and other community agencies
	Professional Development	To provide high-quality, continuous professional development to teachers, principals, and staff to ensure successful integration of 21st century learning and STEM skills into all teaching and curriculum
	21 st Century Learning and STEM Skills	To ensure all students graduate with skills needed for success in the 21st century workplace by revising curriculum to include mastery of technology skills around digital citizenship and productivity



3. All locations where Wi-Fi service is available to students within the school district's geographical boundaries		Locations Where Wi-Fi Service is Available Within the School District's Geographical Boundaries
	✓	School
	✓	Home
	✓	Community
		None

3a. Categories of Wi-Fi locations within the community	Categories of Available Wi-Fi Locations Within the Community	
		Public library
		Local Businesses (Tim Hortons's, etc.)
		Local Colleges - Jamestown Community College (JCC) – Dunkirk Campus, SUNY Fredonia



I. INSTRUCTIONAL TECHNOLOGY PLAN IMPLEMENTATION

1. Timeline and major milestones for the implementation of the technology plan plus action plan to integrate technology into curriculum and instruction to improve student learning	Key to Success	Estimated Timeline	Actions	Desired Outcomes
	Expansion of Online Learning	2015-16 SY	Completion of Common Core lessons video library	By June 2018 all students will have access anywhere, anytime to course content and documents created during the school day
	Expansion of Online Learning	2016-17 SY	Completion of resource toolkit housed on district web page	By June 2018 all students will have access anywhere, anytime to course content and documents created during the school day
	Expansion of Online Learning	2017-18 SY	Adoption of cloud-based solution for students and staff	By June 2018 all students will have access anywhere, anytime to course content and documents created during the school day
	Use of Transformative Technologies	2015-18	Purchase of laptops each year to increase capacity for computer-based testing in each of the six buildings	By June 2018 all students, including those with disabilities and ELLs will have access to transformative technologies (laptops) in their classrooms throughout the school day
	Connectivity Between Schools	2015-18	Network upgrade to new standard and multi-user MIMO	By June 2018 all students, including those with disabilities and ELLs, will be able to utilize transformative technologies at all times throughout the school day without interruption of service
	Connectivity Outside of Schools	2016-17 SY	Extension of several licenses for specific software packages to include availability at public library	By June 2017 all students, including those with disabilities and ELLs, will have off-campus access to specific software applications
	Connectivity Outside of Schools	2017-18 SY	Connection with community members around Marauder News broadcasts	By June 2018 high school students will be able to use Marauder News studio for morning news broadcasts and evening



			programming for the community
Provision of High-Quality Professional Development	2016-18	Development of series of technology integration workshops for staff	By June 2018 all staff will have attended at least one technology integration workshop
Provision of High-Quality Professional Development	2016-18	Development of protocol for having teachers trained in preparation for MOS certification	By June 2018 a minimum of 2 teachers From the elementary level, 2 teachers From the middle school level, and 2 teachers from the high school level will be MOS (Microsoft Office Specialist) certified
Provision of High-Quality Professional Development	2016-18	Development of digital citizenship training module	By June 2018 100% of staff will be trained In digital citizenship
Provision of High-Quality Professional Development	2016-18	Development of training protocol for staff working with students requiring assistive technologies	By June 2017 all staff working with students with disabilities will have received formalized training in assistive technologies
Focus on Student Acquisition of 21st Century Learning Skills	2016-18	Adoption of digital portfolio platform for all students	By June 2018 all graduating seniors will have access to a digital portfolio
Focus on Student Acquisition of 21st Century Learning Skills	2016-18	Adoption of MOS certification into the curriculum	By June 2018 10% of graduating seniors will have MOS certification by the time they graduate
Focus on Student Acquisition of 21st Century Learning Skills	2016-18	Adoption of formalized instruction in productivity software for all students into the curriculum	By June 2018 all students will graduate having received formalized instruction in productivity software
Focus on Student Acquisition of 21st Century Learning Skills	2016-17	Continuation of building project	By September 2017 School #6 will be Renovated and transformed into a PTECH 9-14 college and career academy



J. MONITORING AND EVALUATION

1. Description of the proposed strategies that the district will use to evaluate, at least twice a year, the effectiveness of the implementation of the district's instructional technology plan to improve teaching and learning	Dates	Actions	Desired Outcomes
	November 2016	Technology Plan Committee agenda items: Review plan and available data around status of implementation Chart progress Revise plan accordingly	Report on current progress of plan List of documented revisions, based on data List of next steps Date for next meeting
	February 2017	Technology Plan Committee agenda items: Review plan and available data around status of implementation Chart progress Revise plan accordingly	Report on current progress of plan List of documented revisions, based on data List of next steps Date for next meeting
	June 2017	Technology Plan Committee agenda items: Review plan and available data around status of implementation Chart progress Revise plan accordingly Make revisions for the 2017-18 school year	Report on current progress of plan List of documented revisions, based on data List of next steps Date for next meeting
	November 2017	Technology Plan Committee agenda items: Review plan and available data around status of implementation Chart progress Revise plan accordingly Make revisions for the 2017-18 school year	Report on current progress of plan A list of documented revisions, based on data A list of next steps Date for next meeting
	February 2018	Technology Plan Committee agenda items: Review plan and available data around status of implementation Chart progress	Report on current progress of plan A list of documented revisions, based on data Draft of new plan for 2018-21 cycle



		Revise plan accordingly Begin development of new plan for the 2018-21 cycle	Date set for next meeting
June 2018		Technology Plan Committee agenda items: Complete plan for 2018-21 cycle	Completed plan for 2018-21 cycle

2. Policy information	Policy	Date of Public Forum (if applicable)	URL	Year Policy Adopted
	Acceptable Use Policy (AUP)		http://www.dunkirkcsd.org/domain/670	2013
	Internet Safety / Cyberbullying	June 13, 2013	http://www.dunkirkcsd.org/domain/670	2013
	Parent's Bill of Rights for Data Privacy and Security		http://www.dunkirkcsd.org/domain/670	Posted on Website 9/14/2014
	Social Media Policy			Not yet developed

3. Written procedures in place to ensure cybersecurity Waiting for SED guidance to be developed