

Instructional Technology Plan - Annually - 2015

LEA Information

A. LEA Information

1. What is the total student enrollment based on the most recent BEDS Day submission?

1,229

2. What is the student enrollment by grade band based on the latest BEDS Day submission?

	Enrollment
Grades K-2	275
Grades 3-5	250
Grades 6-8	259
Grades 9-12	398

3. What is the name of the district administrator entering the technology plan survey data?

[REDACTED]

4. What is the title of the district administrator entering the technology plan survey data?

[REDACTED]

4a. If the response to question four was "Other", please provide the title.

[REDACTED]

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Instructional Technology Vision and Goals

B. Instructional Technology Vision and Goals

1. Please provide the district mission statement.

Mission: What We Do

The Cairo-Durham Central School District, in partnership with the community, is committed to creating multiple learning pathways that empower all students to maximize their individual potential and become leaders in their local and global communities.

Vision: What We Want to Be

The Cairo-Durham Central School District will provide a collaborative and engaging environment that is committed to the educational excellence of each individual student. By fostering high expectations and creating educational leaders, we will be recognized regionally and across the state as an exemplary school system.

- See more at: http://cairodurham.org/vision_statement#sthash.IZT4fYQ0.dpuf

2. Please provide the executive summary of the instructional technology plan, including vision and goals.

The district will move away from the traditional instructional style of "computer lab lessons" and "non-computer lab lessons" and towards a system where technology is seamlessly present throughout lessons and projects when needed and can easily disappear into the background of the lesson. To do this, the district will build the infrastructure and inventory necessary to implement a 1-to-1 deployment among both students and faculty. In addition, students will have access to BYOD services, allowing learning to occur with whatever tool best facilitates the learning process. To this end, we have identified the following goals.

Goal 1 - Technology Literacy Benchmarks

The district will create and implement a vertically aligned instructional technology curriculum with benchmarks across all of K-12 in order to develop student technical literacy. This curriculum will include computer literacy (login, word processor, file management, etc.), information literacy (effective searching, critical reading, evaluating sources and bias, etc.), and privacy and safety (keeping passwords private, careful what is shared online, etc.)

Goal 2 - Reliable & Ready Access

The district will ensure that technical resources are reliable and readily available to classrooms. In addition, frequent training opportunities will be provided to the instructional faculty. By addressing the issues of stability, availability, and training, teachers will be better able to integrate technology into the curriculum as routine tools.

Goal 3 - Classroom Instructional Equipment

The district will review and improve its existing classroom instructional and presentation tools. Specific improvements will include the creation of a consistent set of tools across all classrooms, ensuring equity between classrooms enabling teachers to focus on their lesson. Professional development will be made available, especially that which emphasizes instructional strategy.

Instructional Technology Plan - Annually - 2015Instructional Technology Vision and Goals

3. Please summarize the planning process used to develop the instructional technology plan. Please include the stakeholder groups participating and outcomes of the instructional technology plan development meetings.

Cairo-Durham's Technology Plan was a collaborative effort among many stakeholders.

The process began with the Superintendent and Network Administrator actively recruiting volunteers in every school to serve on the district's Technology Committee. This included teachers in primary, intermediate, middle, and high school grades, the media center specialist, administrators, and members of the Information Technology department. Meetings were held throughout 2014-2015 to discuss needs, past experiences, future objectives, and potential visions for the district's future. These meetings were often split into K-5 and 6-12 specific sessions. The committee decided on three goals for the plan and several steps of the action plan to achieve these goals.

Formal meetings of the Technology Committee in the 2014-2015 school year occurred on October 21, November 12, December 11, January 15, and February 12.

The Network Administrator, as the committee facilitator, then met with the Superintendent, Business Manager, and each Principal to communicate the committee's conclusions, discuss details of the implementation, receive additional guidance, etc. These meetings occurred throughout April and May.

This guidance was factored back into the plan. In the end, 12 distinct projects were identified for the action plan.

4. Please provide the 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
- Other
- No Gap Present

5. Based upon your answer to question four, what are the top three challenges that are causing the gap? If you chose "No Gap Present" in question four, please enter N/A.

Funding is a limiting factor for improving the wifi system so that it can handle enough devices in a dense enough arrangement to provide both a BYOD and a 1:1 for all students in all classrooms at the same moment.

Likewise, funding is the primary limitation on how many computers the district purchases. The inventory is currently too small for a 1:1 project.

Regarding professional development, the district previously needed to address certain other priorities. This has led to limits on how much time was available for PD. This is beginning to change, but remains a challenge.

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Instructional Technology & Infrastructure Inventory

C. Technology and Infrastructure Inventory

1. **What is the available network broadband bandwidth? Please express speed in Mb (Megabits) or Gb (Gigabits). ***

	Minimum Capacity (Expressed in Mb or Gb)	Maximum Capacity (Expressed in Mb or Gb)
Network Bandwidth: Incoming connection TO district schools (WAN)	1Gbps	1Gbps
Internal Network Bandwidth: Connections BETWEEN school buildings (LAN)	10Gbps	10Gbps
Bandwidth: Connections WITHIN school buildings (LAN)	1Gbps	10Gbps

2. **What is the total contracted Internet access bandwidth for your district? Please express speed in Mb (Megabits) or Gb (Gigabits).**

100Mbps

3. **What is the name of the agency or vendor that your district purchases its primary Internet access bandwidth service from?**

NERIC

4. **Which wireless protocols are available in the district? Of these, which are currently in use? Check all that apply.**

	Available/In Use
802.11a	<input checked="" type="checkbox"/> Available <input type="checkbox"/> In Use
802.11b	<input checked="" type="checkbox"/> Available <input checked="" type="checkbox"/> In Use
802.11g	<input checked="" type="checkbox"/> Available <input checked="" type="checkbox"/> In Use
802.11n	<input checked="" type="checkbox"/> Available <input checked="" type="checkbox"/> In Use
802.11ac	<input type="checkbox"/> Available <input type="checkbox"/> In Use
802.11ad	<input type="checkbox"/> Available <input type="checkbox"/> In Use
802.11af	<input type="checkbox"/> Available <input type="checkbox"/> In Use

5. **Do you have wireless access points in use in the district?**

Yes

5a. **What percentage of your district's instructional space has wireless coverage?**

100

6. **Does the district use a wireless controller?**

Yes

7. **What is the port speed of the switches that are less than five years old in use in the district?**

Between 1Gbps and 10Gbps, depending. Some are aggregated to reach as high as 40Gbps in the data center.

8. **How many computing devices less than five years old are in use in the district?**

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Instructional Technology & Infrastructure Inventory

	Number of devices in use that are less than five years old	How many of these devices are connected to the LAN?
Desktop computers/Virtual Machine (VM)	180	180
Laptops/Virtual Machine (VM)	15	15
Chromebooks	670	670
Tablets less than nine (9) inches with access to an external keyboard	0	0
Tablets nine (9) inches or greater with access to an external keyboard	0	0
Tablets less than nine (9) inches without access to an external keyboard	15	15
Tablets nine (9) inches or greater without access to an external keyboard	13	13
Totals:	893	893

9. Of the total number of students with disabilities in your district, what percentage of these students are provided with assistive technology as documented on their Individualized Education Programs (IEPs)?

7

10. From your technology needs assessment, please describe 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.

Specialized PD for teachers. Funding for that training.
 Funding for a assistive technology needs assessments for all students identified as disabled.
 Funding for assistive technology for students identified as disabled.
 Increase in Information Technology (IT) staffing in order to quickly and fully support assistive technology.
 Increased opportunities for OT & PT staff to work with IT staff on developing custom solutions for students.

11. How many peripheral devices less than five years old are in use in the district?

	Number of devices in use that are less than five years old
Document Cameras	89
Flat Panel Displays	68
Interactive Projectors	0
Interactive Whiteboards	0
Multi-function Printers	1
Projectors	24
Scanners	0
Other Peripherals	3
Totals:	185

12. If a number was provided for "Other Peripherals" please specify the peripheral device(s) and quantities for each.

3 x Distance learning / video conferencing systems

13. Does your district have an asset inventory tagging system for district-owned equipment?

Yes

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Instructional Technology & Infrastructure Inventory

14. **Does the district allow students to Bring Your Own Device (BYOD)?**

No

15. **Has the school district provided for the loan of instructional computer hardware to students legally attending nonpublic schools pursuant to Education Law, section 754?**

Not Applicable

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Software and IT Support

D. Software and IT Support

1. **What are the operating systems in use in the district?**

	Is this system in use?
Mac OS Version 9 or earlier	No
Mac OS 10 or later	Yes
Windows XP	Yes
Windows 7.0	Yes
Windows 8.0 or greater	Yes
Apple iOS 7 or greater	Yes
Chrome OS	Yes
Android	No
Other	Yes

2. **Please provide the name of the operating system if the response to question one included "Other."**

iOS 5, FreeBSD, Linux, Windows Server 2003 & 2008

3. **What are the web browsers, both available and supported, for use in the district?**

	Web Browsers available and supported for use
Internet Explorer 7	No
Internet Explorer 8	Yes
Internet Explorer 9 or greater	Yes
Mozilla Firefox	Yes
Google Chrome	Yes
Safari (Apple)	Yes
Other	No

4. **Please provide the name of the web browser if the response to question three included "Other."**

(No Response)

5. **Please provide the name of the learning management system (LMS) most commonly used in the district.**

None used.

6. **Please provide the names of the five most commonly used software programs that support classroom instruction in the district.**

Google Drive (Docs, Sheets, Slides)
 Microsoft Office
 Google Classroom
 Khan Academy
 i-Ready

7. **Please provide the names of the five most frequently used research databases if applicable.**

(No Response)

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Software and IT Support

8. Does the district have a Parent Portal?

Yes

8a. Check all that apply to your Parent Portal if the response to question eight is "Yes."

- Attendance
- Homework
- Student Schedules
- Grade Reporting
- Transcripts
- Other

8b. If 'other' was selected in question eight (a), please specify the other feature(s).

Teacher comments. Next year class registration. School contact information. School announcements.

9. What additional technology-based strategies and tools, besides the Parent Portal, are used to increase parent involvement?

- Learning Management System
- Emergency Broadcast System
- Website
- Facebook
- Twitter
- Other

9a. Please specify if the response to question nine was "Other".

Email newsletter.

10. Please list title and FTE count (as of survey submission date) of all staff whose primary responsibility is technical support.

Title	Number of Current FTEs
Network Administrator	0.90
Computer Administrator	1.00
Computer Tech. Assistant	0.70
	2.60

Instructional Technology Plan - Annually - 2015Curriculum and Instruction

E. Curriculum and Instruction**1. What are the district's plans to use digital connectivity and technology to improve teaching and learning?**

- Continue with online student management system (Power School) to improve communication with the district and our families.
- We use Google Classroom to enable teachers to provide work digitally and limiting "paper" assignments, which are more easily lost.
- Increasing internet connection to allow more online multi media resources, more differentiated instruction and more individualized instruction.
More bandwidth will also allow for more collaboration among teachers and students.

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

Yes

2a. If "Yes", please specify.

The district tech plan includes the following:

- providing assistive technology for disabled students
- providing professional development on assistive technology for staff.

3. Does the district's instructional technology plan address the provision of assistive technology specifically for students with disabilities to ensure access to and participation in the general curriculum?

Yes

3a. If "Yes", please provide detail.

The district's plan does not prevent the support that 504 and IEP documents recommend. Furthermore, it establishes a baseline for student computer access that makes it easier to fulfill those recommendations. For example, the plan will increase the extent of the wireless networking.

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Professional Development

F. Professional Development

1. Please provide a 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. Please include topics, audience, and method of delivery within your summary.

Topic	Description	Audience	Method of Delivery
Assistive Technology Options	Make faculty aware of assistive technology options which are already in use so they can be aware of the options when they are a good fit for a student's needs.	Special Education faculty and staff	Small group conference. As-needed instruction, based on when and which students are identified as having additional needs.
Collaborative Student Work	Make faculty aware of available tools for students to work in groups, hand in work electronically, distribute materials to students electronically, etc. Focus on time saving techniques, student group projects, making students and faculty more productive by making materials available regardless of time or place.	Teachers	Conferences. On request coaching.
Locating Resources	Finding good resources, such as online videos that cover useful content in an effective way, original sources for history topics, etc.	Teachers	Conferences. On request coaching.
The Networked Class	Introduce faculty to tools for distributing materials to students and receiving work from students. Focus on time saving techniques to make making materials available regardless of time or place and reduce dependency on the availability of printers.	Teachers	Conferences. On request coaching.
Individualized Instruction	Using technology to deliver individualized feedback. Includes LMS and collaboration tools.	Teachers	Conferences. On request coaching.
Differentiated Instruction	Using technology to deliver variations in the same lesson in order to improve student understanding.	Teachers	Conferences. On request coaching.
School-Home Connection	Using tools such as the student management system to improve communication with parents without increasing teacher workload. This includes grades, attendance, future homework assignments, and classroom hand-outs.	Teachers, Office Staff, School Administrators	Conferences. On request coaching.

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Professional Development

2. Please list title and FTE count (as of survey submission date) of all staff whose primary responsibility is technology integration training and support for teachers.

Title	Number of Current FTEs
Network Administrator	0.10
Computer Tech. Assistant	0.30
	0.40

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Technology Investment Plan

G. Technology Investment Plan

1. Please list the top five planned technology investments in priority order over the next three years.

	Anticipated Item or Service	Estimated Cost	Is Cost One-time or Annual	Potential Funding Source (May list more than one source per item.)
1	Wi-Fi	145,000	One Time	Smart Schools Bond Act
2	Laptops	272,500	Annual	Budget & Smart Schools Bond Act
3	Network Cabling	325,000	One Time	Smart Schools Bond Act
4	Server/Network Software	50,000	One Time	Budget
5	Other	200,000	One Time	Smart Schools Bond Act
Totals:		992,500		

2. If "Other" was selected in question one, please specify.

The district will be reviewing what equipment is needed in classrooms to improve lectures and presentations. This includes but is not necessarily limited to replacing projectors, document cameras, speakers, VCR/DVD/Bluray players, and wireless video streaming devices (e.g. Apple TV, Chromecast, etc.)

Instructional Technology Plan - Annually - 2015Status of Technology Initiatives and Community Involvement

H. Status of Technology Initiatives and Community Connectivity

1. **Please check any developments, since your last instructional technology plan, that affect the current status of the technology initiatives.**

- Changes in District Enrollment
- Changes in Staffing
- Changes in Funding
- Technology Plan Implementation
- Computer-based Testing
- Catastrophic Event
- Developments in Technology
- Changes in Legislation
- Other
- None

2. **In this section, please describe how the district plans to increase student and teacher access to technology, in school, at home, and in the community.**

In 2015, all K-12 teachers will be given individual laptops to use in addition to the desktop in their classroom. Additionally, all K-5 classrooms will receive 4 laptops to use as a classroom center.

Over course of the instructional technology plan's 3 years, the district will invest in wired and wireless infrastructure and servers so that both a 1:1 deployment and a BOYD service can be supported. Once the infrastructure is in place, students' computer accounts will also authorize them to use the BYOD service. Lastly, the district will gradually build up to a full 1:1 deployment over grades 3 - 12.

3. **Please check all locations where Wi-Fi service is available to students within the school district geographical boundaries.**

- School
- Home
- Community
- None

- 3a. **Please identify categories of available Wi-Fi locations within the community.**

Public library. Several local businesses including McDonalds and a convenience store named "Smart Stop."

Instructional Technology Plan - Annually - 2015Instructional Technology Plan Implementation

I. Instructional Technology Plan Implementation

1. **Please provide the timeline and major milestones for the implementation of the instructional technology plan as well as the action plan to integrate technology into curriculum and instruction to improve student learning.**

Summer 2015

- Make PD sessions on instructional technology available to faculty.

Fall 2015

- Introduce a Technology Special in K-5.
- Technology Committee begins research on options for classroom AV upgrades and solicits feedback from faculty members.

Spring 2016

- Finalize a vertically aligned technology literacy curriculum across K-12, including what skills each teacher can expect their students to have at the beginning of the school year and benchmarks for measuring those skills.

Summer 2016

- Upgrade wired network to reduce single points of failure, thus safeguarding against a widespread outage in the event of equipment failure.
- Upgrade wireless network to support new growth in 1:1 and BYOD initiatives, including the 400 new devices for the high school 1:1 initiative in the fall.
- Install new classroom AV equipment, per Technology Committee's research throughout 2015-2016.

Fall 2016

- Update Technology Special in K-5 to include new technology literacy curriculum benchmarks.
- Begin roll out of 200 devices to 12th and 11th grade students as part of a 1:1 initiative.
- Begin BYOD access for faculty and staff, to gain feedback for the purpose of informing PD.

Spring 2017

- Begin roll out of 200 devices to 10th and 9th grade students as part of a 1:1 initiative.
- Begin BYOD access for select students as a pilot program. Increase number of students over time.

Summer 2017

- Complete any wired network upgrades not completed in Summer 2016.
- Complete any wireless network upgrades not completed in Summer 2016.
- Install any new classroom AV equipment not installed in Summer 2016.

2017 - 2018

- Begin roll out of 300 devices to 6th, 7th, and 8th grade students as part of a 1:1 initiative.
- Continue to increase BYOD access for students until all 6th - 12th grade students are included.

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Monitoring and Evaluation

J. Monitoring and Evaluation

1. **Please describe 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.**

The district's Technology Committee members will solicit feedback from the faculty and administration by way of semi-annual surveys. These surveys will be designed to identify technical issues, professional development needs, potential trainers, and potential modifications to the execution of this plan.

Committee members are also encouraged to solicit feedback from their peers. Such feedback might not appear through more formal channels, but could alert the committee to an issue that requires investigation.

The Technology Committee will meet roughly every 4-8 weeks throughout the school year to review feedback from surveys and peer discussion and discuss strategies to address concerns in the areas of professional development and technical issues that the surveys bring to light.

2. **Please fill in all information for the policies listed below.**

	Date of Public Forum (If applicable)	URL	Year Policy Adopted
Acceptable Use Policy -- AUP	12/14/2006	http://www.cairodurham.org/policy/computer-network-system-education-policy	2006
Internet Safety/Cyberbullying	07/23/2015	http://www.cairodurham.org/policy/internet-safety-policy	2015
Parents' Bill of Rights for Data Privacy and Security	(No Response)	http://caiurdurham.org/data-privacy	2015

3. **Does the district have written procedures in place regarding cybersecurity?**

No

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Survey Feedback

K. Survey Feedback

Thank you for submitting your district's instructional technology plan (ITP) survey via the online collection tool. We appreciate the time and effort you have spent completing the ITP survey. Please answer the following questions to assist us in making ongoing improvements to the online survey tool.

1. Was the survey clear and easy to use

No

1a. If response was "No", please explain.

It was not easy to find the guidance document.

2. Was the guidance document helpful?

Yes

3. What question(s) would you like to add to the survey? Why?

(No Response)

4. What question(s) would you omit from the survey? Why?

(No Response)

5. Other comments.

(No Response)

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Appendices

Appendices

1. **Upload additional documentation to support your submission**

(No Response)