Technology Plan

2021-2024

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District Information

Edwards-Knox Central School is a public school district located in rural St. Lawrence County, N.Y. Edwards-Knox Central School has a student population of over 600 students, with a low mobility rate percentage. A majority of our students receive Free or Reduced lunch. The district is elementary (pre-kindergarten through 6th grade) and 7th-12th grade, housed in one building.

Mission Statement

The mission of the Edwards-Knox Central School District is to provide positive learning experiences in order to maximize the growth and potential of each student and to serve as a learning resource for the entire community. This mission will be achieved through teaching and learning in an environment which is safe and positive, which encourages students to become responsible and to respect themselves and others, and which focuses on social, emotional, and physical dimensions. This mission will be achieved through the cooperative efforts of students, parents, the community, the Board of Education, the professional staff, and the support staff.

Vision Statement

Our vision for the use of instructional technology in the district is to foster (for all learners) a community that is student centered; an atmosphere that promotes self motivated life-long learners who are capable of utilizing resources to research, communicate, collaborate, problem solve and explore alternate ways to demonstrate understanding.

Goals

Goal 1 Integrate the New York State Computer Science and Digital Fluency Standards.

Goal 2 Implement procedure for the approval of new software and extensions impacted by Ed. Law 2D.

Goal 3 Create a path to allow graduating seniors an opportunity to keep their issued Chromebook device.

Goal 1: Integrate the New York State Computer Science and Digital Fluency Standards.

Edwards-Knox CSD will start building towards the full integration of the New York State Computer Science and Digital Fluency Standards by the 2023-2024 academic year.

Action Steps:

- Inform staff about the new standards
    - Who? Administrators and Technology Coach
- Review the standards and the provided examples to determine what standards are currently being taught.
    - Who? Teachers and Technology Coach
- Develop ways to integrate standards not currently being covered.
    - Who? Administrators, Teachers and Technology Coach
- Cover the standards in instruction. Options include:
    - Integrated within core subject areas
    - Part of Computer Science:
        - Push-in lessons with Technology Coach, librarian or other
        - Scheduled credit classes with teacher

Expected completion: 2023-24 school year

Goal 2: Implement procedure for the approval of new software and extensions impacted by Ed. Law 2D.

Design, implement, and utilize an effective, reliable means of identifying applications and subscriptions that are allowed to be used by learners, educators, and leaders. Also identify what is in the process of being cleared for use and what has not passed the requirements. Establish a means for collecting requests for application and subscription for inclusion.

Action Steps:

- Identify applications and subscriptions that have been approved, are in process or have been rejected.
- Create a digital form to collect requests for applications and subscriptions.
- Develop a file that includes the status and pertinent information about the applications and subscriptions.
    - Include a link to the applications and subscriptions request form.
    - Include contact information.
- Make both the application and form available to staff.
- Update and maintain

Expected completion: 2021-22 school year

Goal 3 Create a path to allow graduating seniors an opportunity to keep their issued Chromebook device.

Edwards-Knox will develop a process that will allow graduating seniors an opportunity to keep the Chromebook device they were issued as 11th graders to better facilitate future employment or education opportunities. (Equitable Access)

Action Steps:

- Determine the best method to use to purchase the Chromebooks for 11th graders so as to be able to release the Chromebooks to the students when they graduate.
- Develop guidelines for the process of transferring ownership of the Chromebook to the graduate.
- Establish any criteria that need to be met by the parties involved.
- Provide information to 11th grade students about the purchase option.
- Post graduate survey to judge the effectiveness of the initiative.

Who: Administrators, Business Dept., and I.T.
An implementation target for the 2022-23 school year.

Student Technology Benchmarks

Basic Operations and Concepts			
	Introduce	Reinforce	Master/ Maintain
Identify and use the parts of a computer	Pre-K	K-4	5-12
Keyboard familiarity (enter/return, spacebar, arrow keys, etc.)	Pre-K	K-4	5-12
Use the mouse (point, click, double, click, drag)	Pre-K	K-4	5-12
Open a software program	Pre-K	K-4	5-12
Quit a software program	K	1-4	5-12
Recognize icons and their functions	K	1-4	5-12
Open, close, and restore windows	K	1-4	5-12
Use the scroll bar	K	1-4	5-12
Use correct posture at the computer	K	1-4	5-12
Open and close a file	1	2-4	5-12
Create and name files	1	2-6	7-12
Login using username and password	1	2-3	4-12
Perform touch typing	1	2-3	4-12
Use correct finger reaches from home row to top/bottom row keys	2	3	4-12
Use “save as” appropriately	2	3-4	5-12
Create and use a structure of files and folders	2	3-4	5-12
Print documents to specific network printers	2	3-4	5-12
Access and save to network folder, hard drive, floppy disk, CD-ROM, or flash drive	2	3-4	5-12
Delete files and folders	2	3-4	5-12
Use function and numeric keys	3	4	5-12
Use keypad to key numbers	3	4	5-12
Uses basic terms in reference to computer technology (ie. port, disk drive, CD- drive, etc.)	3	4	5-12
Multitask by opening and using two programs at once	4	5	6-12
Use find command to locate files and folders	7	8	9-12
Use online help	8	9	10-12

Ethical, Legal, & Social Concerns			
	Introduce	Reinforce	Master/ Maintain
Collaborate with other classmates as a team member	K	1-6	7-12

Demonstrate appropriate behavior when using computers	K	1-6	7-12
Demonstrate proper care of computer media and media devices	K	1-6	7-12
Respect the privacy of others work	K	1-6	7-12
Model legal and ethical behaviors when using technology.	2	3-4	5-12
Understand and respect copyright laws.	5	6	7-12

Word Processing Skills			
	Introduce	Reinforce	Master/ Maintain
Change font, size, style, color, and alignment of text	2	3	4-12
Insert clip art	2	3	4-12
Identify intended use of word processing program	3	4	5-12
Set page orientation (portrait and landscape)	3	4	5-12
Select, insert, and delete text	4	5	6-12
Cut, copy, and paste text	4	5	6-12
Insert bullets and numbers	4	5	6-12
Insert date format and page numbers	5	6	7-12
Use find and replace/change command to replace text	5	6	7-12
Insert symbols	5	6	7-12
Use thesaurus	5	6	7-12
Add footnotes/endnotes	5	6	7-12
Change page setup	5	6	7-12
Create and Format Tables	5	6	7-12
Create Columns	5	6	7-12
Add Header or Footer	5	6	7-12
Spell and Grammar Check Document	5	6	7-12
Mail Merge	9-12		
Utilizing drop caps, text wraps, and other graphical enhancements.	9-12		

Graphics and Multimedia			
	Introduce	Reinforce	Master/ Maintain
Name and use paint and draw tools	4	5	6-12
Add a picture	4	5	6-12
Cut, copy, and paste pictures	4	5	6-12
Resize pictures	4	5	6-12
Add and edit text	4	5	6-12
Move and delete slides	4	5	6-12

Change slide layout	4	5	6-12
Create a variety of documents using Publisher.	4	5-6	7-12
Create presentation using Storybook	4	5	6-12
Import and embed audio and graphics	5	6	7-12
Use templates, wizards, and backgrounds	5	6	7-12
Create presentation using PowerPoint	5	6	7-12
Use transitions and timing	5	6	7-12
Create presentation using Movie Maker	8	9-12	9-12
Create hyperlinks	9-12	9-12	9-12
Create animations	9-12	9-12	9-12
Create Avatar	9-12		

Spreadsheet			
	Introduce	Reinforce	Master/ Maintain
Identify intended use of a spreadsheet	6	7-8	9-12
Navigate in a spreadsheet	6	7-8	9-12
Identify cells, columns, and rows	6	7-8	9-12
Add and edit data	6	7-8	9-12
Create a spreadsheet	6	7-8	9-12
Insert/delete columns and rows	8	9-12	
Manage and communicate information	8	9-12	
Use to solve problems	8	9-12	
Produce graphs and charts	8	9-12	
Use sum command and simple formulas	8	9-12	
Use fill down/across	8	9-12	
Create a professional quality report.	8	9-12	

Internet and Research Tools			
	Introduce	Reinforce	Master/ Maintain
Demonstrate appropriate behavior for Internet and e-mail use	2	3-4	5-12
Navigate teacher chosen website	2	4-5	6-12
Use internet toolbar to navigate	2	3-4	5-12
Use online library databases and e-books	4	5-6	7-12
Perform simple web searches	4	5	6-12
Use hyperlinks to navigate	5	6	7-12

Acquire appropriate information online (text, audio, video, databases, graphics, etc)	5	6	7-12
Use electronic reference tools	5	6	7-12
Evaluate acquired information for validity and usefulness	5	6	7-12
Introduce the use of bookmarks	5		
Add an internet bookmark	5		
Apply technology tools for research, information analysis, and problem solving in content learning	5	6	7-12
Utilize online learning management systems (blackboard, moodle, etc)	8	9-12	9-12
Identify the parts of an email message	9-12		
Send and receive email	9-12		
Reply to an email message	9-12		
Correctly attach files and send files by email	9-12		
Use appropriate programs to open attached email files	9-12		
Enter a URL	9-12		
Develop multimedia presentations with sources cited	9-12	9-12	

Current State of Technology

The Technology Plan

The Edwards-Knox School Technology Plan is implemented and evaluated through a shared decision-making team process. The team meets as needed, to discuss and evaluate technology needs, software and hardware purchases and staff development needs. The Committee consists of a mixture of (but not limited to) elementary staff, high school staff, parents, students, IT, Instructional coach and administration.

With the constantly evolving area of technology and it's huge impact on the lives of our students and staff, the Tech Committee will meet as needed each year to review the effectiveness of the district's tech plan. Sub-committees will bring back areas of information or concerns as presented by (but not limited to) the staff and/or student body. Changes will be suggested and the Tech Committee will adapt the current tech plan as a draft until all the changes have been reviewed and approved. Before the school year ends, the Tech committee will meet and approve the updated tech plan.

Due to COVID 19, video conferencing equipment such as web cameras, speakers and other devices have been provided for the classroom teachers to provide instruction from a distance. Zoom has been the primary video communication platform in the 2020-21 school year.

Along with professional development, some other factors that drive the technology purchases made include input from students, staff, BOCES, educational studies and the IT department based on their inventory and understanding of what technology is reaching the end of its expected life cycle.

The Technology Planning Team

The current roster:

Samantha Bullock
Erin Woods
Tracy Burke
Karen Dandrow
Mike Gault
Kristin Guyette
Jon Hogle
Rod Hooper
Lura Hughes
Amy Sykes

NYSED INITIATIVES ALIGNMENT

Technology used in Learning

Technology is used by teachers in a multitude of ways to facilitate their practice. Instructors utilize technology to disseminate information through means of display methods, both to the front of the room and to individual student devices, distribute digital learning materials through the district's designated learning management system, afford for practice of curricular materials, collect data through multi-faceted means of digital assessment, afford for greater accessibility through the use of baked-in and installed assistive technology, provide for multiple means of expression when engaging in learning tasks, and to afford opportunities for digital community as students grow as digital citizens. Teachers also utilize technology to take advantage of professional development opportunities be they online synchronous or live offerings.

From a student perspective they get to see technology modeled by the teacher using an interactive panel, document camera and other hardware used to help facilitate learning. Services the district subscribes to as well as additional internet content chosen but the teacher adds depth through multimedia, up-to-date information, simulations and opportunities for collaboration outside the classroom walls. Student work can be more creatively expressed through the additional options provided through technology. Answers are available 24-7 and parsing that information, finding the bias in that information, establishing what is true and citing the sources is now an important part of the learning process.

Equitable Access

COVID-19 school closures and remote learning revealed the lack of access our families have to reliable internet services and the need for a student/parent support hotline. To address the inequities of internet access in all homes the district put in place a plan to mitigate that issue and to provide technical support for those outside of the building. What follows are the actions of our district to provide equitable learning "everywhere, all the time."

Develop funding models and plans for sustainable technology purchases and leverage currently implemented platforms .

- The district has worked to make sure that we are best leveraging recurring revenues, state aided lines, and local revenue streams to assure a sustainable stream of purchases for all devices. The Smart Schools Bonds Act ensures a sustainable revenue stream for staff instructional technology needs.
- Student chromebooks will be replaced at the following grade levels: 3rd, 7th and 11th, teacher devices will be replaced over the course of a 4 year period, older classroom interactive display devices are currently being phased out and replaced with interactive flatscreen panels, and peripheral devices will be replaced as needed.

Ensure students and educators have equitable access to the internet and adequate wireless connectivity. In addition, every student and educator has appropriate software and resources for research, communication, multimedia content creation, and collaboration for use in and out of school.

Our definition of what is schooling and what constitutes school work has expanded rapidly in the face of the modern world. Our aims to prepare our students for an ever changing technological world necessitate that we work towards providing universal network access and intentionally combat the digital divide.

- The remote nature of our district means that some families may not have broadband internet available to them and their homes may not have sufficient cell phone service to utilize a mobile hotspot. Wifi is available while parked at the school. For those without internet access but are within cellular range, the district had purchased mobile network hotspots. These devices connect to a cellular network and provide an instant network connection so that students without

internet connections can still be able to complete their assigned coursework. Our district leadership team called each home during the COVID-19 pause to identify the homes in our district that were without network access as to be strategic in purchasing amounts and allocation of resources. While the initiative began as a means of providing for remote instruction, the initiative has since morphed into a means of providing access on a daily basis to underserved students. Students may now sign out these mobile hotspots from the school for digital work completion at home.

- Prior to the start of the COVID-19 pandemic, our district had invested a significant amount into the procurement of student devices. We had made the decision to utilize Chromebook devices for students to more easily allow each student to have a device at their disposal. Each student has their own Chromebook device.
- In the past, our faculty and staff device purchases were focused upon the maintenance of desktop PCs. We have since surmised that the same use of Windows PCs can be accomplished through the use of laptops and docking stations. While we have always had a device for every faculty member, we aspire in the next three years to have staff empowered to utilize computing devices from any location on or beyond our campus through concerted laptop purchases.

Addressing Learning Needs

The district seeks to empower students with diverse learning needs not by providing each student with a device but by affording increased access to the curriculum through the assistive technology afforded through the use of the devices. The modern iterations of personal computing devices, notably Chromebooks in our district, come with a litany of accessibility features that students with diverse learning needs are provided access to and are explicitly taught how to utilize these features to provide for greater equity in learning opportunities. You will note the utilized services below as sorted by the associated disability.

Visually Impaired

Baked-In Chromebook Assistive Tech

- Chromebook fullscreen magnifier
- Chrome Vox screen reader
- Dark mode
- High contrast mode
- Resizable text through zooming

Deafness and Hard of Hearing

Baked-In Chromebook Assistive Tech

- Video subtitling in YouTube (closed captioning)
- Zoom/Google Meet closed captioning and transcription

Outside Feature

- Amplification devices

Fine Motor Disability

Baked-In Chromebook Assistive Tech

- Touchscreen interface
- Stylus usage
- Chromebook dictation
- Voice typing in Google Workplace products such as Google Docs and Google Slides

Outside Feature

- Kami for written expression instead of typing
- Kami speech to text feature

- Use of an external mouse
- Use of occupational therapy mice

Literacy-Based Disabilities
Baked-In Chromebook Assistive Tech
- Chromebook dictation
- Chrome Vox for screen reading
- Voice typing in Google Workplace products such as Google Docs and Google Slides
- Predictive text and spell checking

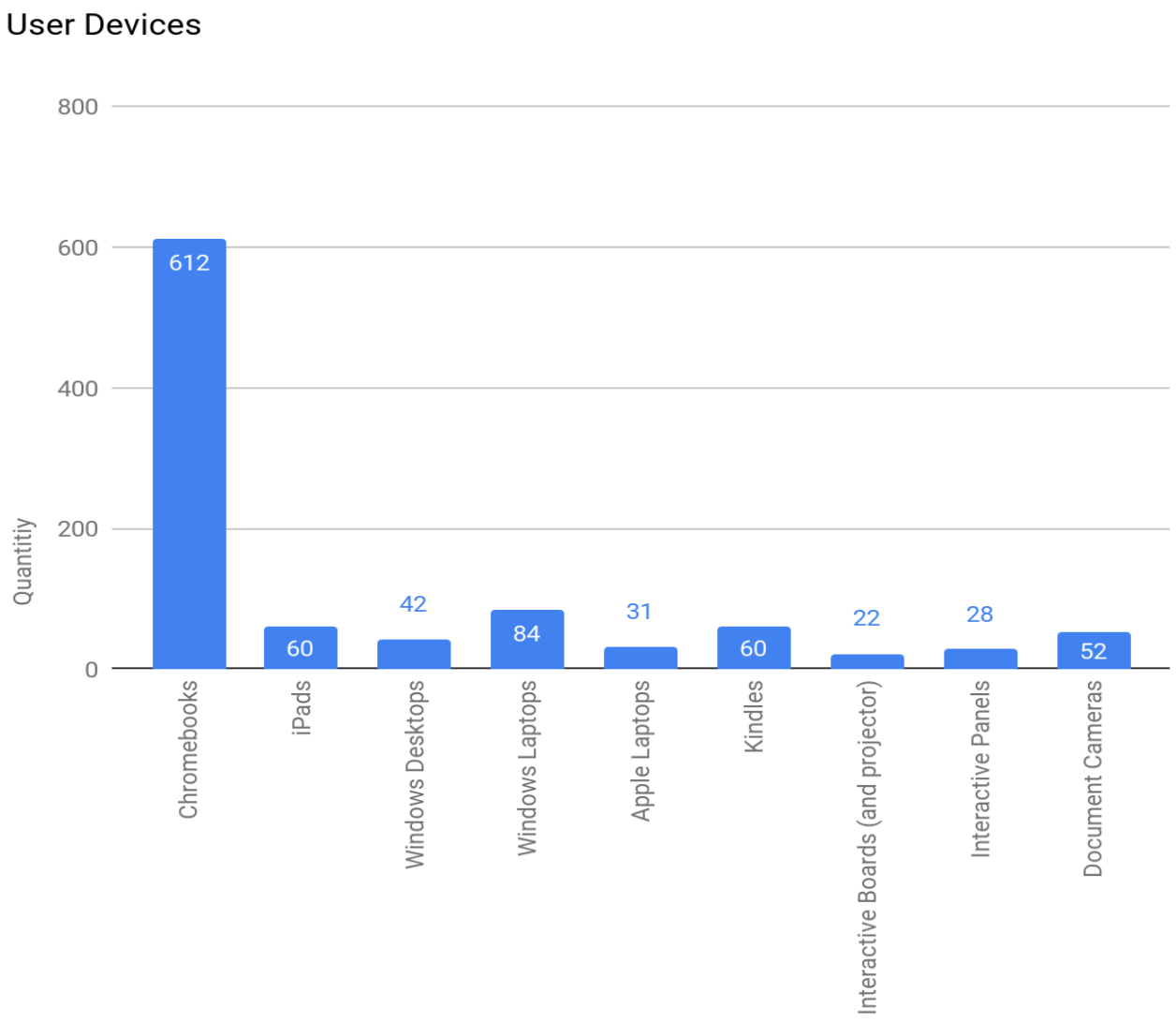
Outside Feature
- Kami for speech to text
- Kami for text to speech
- Read and Write for Google for speech to text
- Read and Write for Google for text to speech

Color Blindness
Baked-In Chromebook Assistive Tech
- -High contrast mode in Chromebook
- Monochrome screen option

English as a Second Language
Baked-In Chromebook Assistive Tech
- Chromebook language settings
- Alternate language closed captioning on YouTube videos
- Closed captioning translation in Google Meet and Zoom

Hardware and Peripherals

The typical classroom consists of a desktop or laptop computer and an interactive whiteboard. Optional devices include but are not limited to devices such as a document camera or an apple tv device (elementary). Students in Pre-K have an iPad and chromebooks as their 1:1 devices. Students from Kindergarten and up each receive a Chromebook. The infrastructure consists of WiFi routers to support these 1:1 devices.



Sustainability

Hardware

- Student's will be issued new Chromebooks at third, seventh and eleventh grade. Approximately 150 devices a year. Returned Chromebooks in good shape will be used to maintain class sets in Kindergarten through second grade as well as resource rooms.
- The cycle for teacher device replacement is every 4 to 5 years depending on their choice of device.
- The district's aging interactive whiteboards and projectors were purchased at about the same period in time and replacing them all at once would lead to future economic strain should they all start to fail together. Edwards-Knox has been phasing in replacements at a rate of five to ten devices a year. Emphasis being given to classrooms being renovated for a different assignment. Replacement devices may be the newer model interactive panel displays, a large flat screen (for those that do not require touch input) or another device or system that enhances student comprehension and understanding.

Software and Subscriptions

- District wide software and subscriptions that are part of the hardware and devices that the district uses are compiled by I.T. and approved by administration ,the district's DPO and built into the budget.
- District wide software and subscriptions like the resources provided through the library and other subscriptions like iReady and Castle Learning are built into the district budget and are periodically reviewed for their value to education.
- Teacher requested software and subscriptions are approved by their building Principal and the district's DPO on a yearly basis.

Professional Development

- Professional development monies are built into the yearly budget.
- Three days a week of a Model Schools' Instructional Technology Curriculum Coach is also provided for staff, 1:1 coaching, technology integration assistance and student instruction (both planned and on-demand/as needed).