

Technology in the Westborough Schools

Spring update to the School Committee
May 11, 2022

Jon Green, Director of Technology

Overview:

This presentation is organized into the following parts:

- Who we are
- Budget philosophy
- Infrastructure updates
- Teaching and Learning updates
- Operations updates
- Response to COVID

The Team

District

- Jon Green - Director
- Scott Henderson - Data Architect
- Edward Smreczak - IT Infrastructure Administrator
- Steve Masciarelli - AV Coordinator
- Bernadette Noel (2019-2022) - Data Specialist
- Veena Swaminathan (2022) - Data Specialist

Computer Support Technicians

- Mark Coplin - Hastings Elementary School/Gibbons Middle School
- Doug Lang - Fales/WHS
- Tina Mayone* - WHS/Mill Pond
- Tyrone Notice* - GMS/Armstrong Elementary
- Mark Rearden - Armstrong Elementary/Hastings Elementary
- Matthew Strumpf - Mill Pond/Fales Elementary

* Expanded role from BTS in November, 2020

The Team

Building Technology Specialist Paraeducators

- Bavi Emani (Fall-Spring 2022) - Fales Elementary School
- Kristen Doyle (Spring 2022) - Fales Elementary School
- Preeti Hiranandani - Armstrong Elementary School
- Ryan Mignini (Fall 2020) - Mill Pond School
- MaryAnne Mort (Fall 2020) - Hastings Elementary School

Instructional Technology Specialists

- Megan Gerstenzang (Fall 2020) - Gibbons Middle School/WHS
- Paula Johnson/Caitlin Gardner (Fall 2021) - Mill Pond

Budgeting

- We appreciate the community's ongoing generosity and commitment to technology in our schools and take the accompanying responsibility seriously.
- We're always pursuing opportunities to improve service and lower expenses without compromising value or function
- We prioritize keeping abreast of EOL equipment replacements to avoid spikes in spending needed to catch up.

Budgeting

- After FY19 we phased out our 3-year leases for Chromebooks and iPads. This gives us a larger purchasing window within which to time these purchases based on price and availability
 - We made our final lease payments in the fall of 2021
- Switched to self funding iPad repairs when analysis of repair data indicated cost savings
- Federal and state COVID grants were essential funding sources for the services and software we needed to pivot to working, teaching, and learning from home during COVID.
 - We continue to assess which ones to continue, which ones to reduce, and which ones to taper off
- New copier lease is in progress with changes that increase options and reduce expenses
- FY23's increase is to restore temporary reductions and accelerate the replacement of aging projectors

Infrastructure Updates

Accomplishments

- Finished replacing EOL network switches district wide
- Increased number of 10G connections within and between schools
- Doubled Internet bandwidth with very small increase in cost
- Replaced EOL virtual infrastructure server and storage hardware
- Brought Powerschool server in-house to improve integration and reduce cost
- Replaced EOL firewall hardware
- Replaced EOL telephone server hardware district wide
- Migrated copper phone lines to SIP, adding features and saving money
 - Implementing eFax to add features and eliminate copper lines
- Replaced EOL wireless access points
- Opened new Fales school with best classroom AV experience yet

Infrastructure Updates

Goals

- Replace EOL classroom phone and PA equipment
 - HS is underway with completion by July
- Mill Pond security camera assessment for FY24
- Replace a small number of wireless access points as they reach EOL
- Add more digital signage and research software with more features

Teaching and Learning Updates

Accomplishments

- Contributed to district-wide efforts to adapt the work of the district to happen from home during COVID
- Supported return to school with modifications and accommodations for physical distancing, masking, and other adaptations
- All students K-9 have a dedicated, district provided iPad or Chromebook
- Developed processes and methods to ensure all families have home WiFi
- Brought new people to Mill Pond Library & Technology roles and combined specials schedule to add flexibility
- Developed and led training opportunities for new tech at Fales

Teaching and Learning Updates

Goals

- Support Library Teachers with K-3 Digital Literacy Benchmarks development and piloting
- Integrate family technology assessment and orientation into student registration process
- Support implementation of district wide visualization of building based resource consumption data
- Support establishment of a FIRST Robotics team at Gibbons Middle School
- Support establishment and growth of Makerspaces in grades K-6
- Support digital literacy curriculum development in grades K-6

Operations Updates

Accomplishments

- Partnered with HR on design, procurement, and implementation of HR system to help streamline and automate workflows
- Partnered with HR and Business Office to help streamline payroll processes
- More PowerSchool customizations to Admin and Parent portals
- Migrated assorted web services to vendor's cloud offering to reduce TCO.

Goals

- Develop roadmap for redesigning website
- More iterations partnering with HR and Business offices to help streamline, automate, and digitize paperwork and processes
- Assess mass notification systems, online payment systems, and others for opportunities to improve features and integration

Response to COVID

- The necessity to quickly pivot to teaching and learning from home required an extraordinary level of effort to ensure everybody had the devices, connectivity, software, and services they needed
- Our strong technology base and early purchasing timelines allowed us to provide a dedicated mobile device to all students and staff in the district relatively quickly, allowing us to pivot to teaching, learning, and working from home relatively quickly and effectively.
 - Tech department staff prepared and distributed iPads to students to take home, Chromebooks to staff without computers, and laptops to staff with desktops.
 - Tech department staff provided remote support for all users, conducted troubleshooting and facilitated repairs, and even traveled to the homes of some students and staff when required.
 - We made every effort to ensure that all families & staff had adequate wireless internet access and provided means for access when needed.

Response to COVID

- Everybody's work loads increased dramatically and in response we adopted new tools and practices to streamline remote support to families, students, and staff.
- The need to quickly vet, adopt, provision, and learn many new tools and practices district-wide forced everybody in the district to iterate much faster than usual and operate much farther outside of comfort zones.
 - E.g. Clever, Seesaw Premium, Google Classroom, Zoom, Meet, Jamboard, etc.
- Returning to classrooms with physical distancing brought new challenges for supporting teachers, students, and staff in existing and new spaces while continuing to support a remote cohort.

How we've changed

- As a district we're all a lot better and more comfortable with video conferencing, and are seeing areas where we'll continue to use it to connect with colleagues and parents.
- Administrators and support staff have more experience being productive while working remotely.
- The Tech Department is supporting more people and more things with the same staff.
- Not leasing gives us additional flexibility and capacity to repurpose student iPads and Chromebooks when the students are done with them.
- More workspaces use laptops with external displays instead of desktops.
- With 1:1 iPads in grades K-3, we're starting process to stabilize and converge on a consistent set of skills and expectations for those students.

Questions

