Teachers and Technology: Bridging the Gaps in Digital Education

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With over half of educators wanting to continue to use technology to enhance classroom education, school districts are increasing tech investments.

Executive Summary: Innovation Starts with Teachers

Education has always relied on tools that improve communication and collaboration. From the invention of the modern-day pencil by Nicholas-Jacques Conté in 1795 to the 1:1 (one device, one student) model that many schools use today, technology impacts how teachers teach and students learn.

Every new technology that students use requires teacher stewardship to ensure its success. Consequently, the value of technology lies in the teacher's ability to enable it. Three out of every four teachers believe that technology improves their ability to educate students. But giving teachers hard-to-use technology is worse than giving them no technology. Complicated digital solutions can hinder a teacher's ability to effectively educate students.

This is what happened during the pandemic. While remote learning was better than no school, there were many challenges in the abrupt shift to distance learning. The quality of education schools were able to provide declined. Some studies show that remote learning students missed the equivalent of 13-22 weeks of classroom instruction, putting them behind the curve when they returned to the classroom in 2022.

However, when school systems introduce the right technology to the classroom and enable teachers to use it effectively, it can positively impact student outcomes. With over half of educators wanting to continue to use technology to enhance classroom education, school districts are increasing tech investments. One study suggests that education spending on technology is predicted to grow to more than 400 billion dollars by 2025, a 12 percent increase from 2020.

The pandemic played a crucial role in the transformation of the education landscape. It forced educators to use modern tools and applications, and teachers' knowledge of new technologies grew over time. Now, educators see the potential for the use of similar tools to improve classroom learning, with more than 75 percent of educators believing that technology effectively engages students.

Beyond education, the pandemic changed technical requirements across the workforce. Analysts predict that by 2030, three-fourths of all jobs will require advanced technical skills. This trend not only impacts teachers today in their work but also their students who need these skills to enter the job market. Now more than ever, educators must keep up with the pace of innovation to prepare their students for the future.

Digital Education Challenges of the New Normal

The sudden shift to distance learning during the pandemic created a survive, rather than thrive, mentality. The idea of pushing through until things returned to "normal" became every school's mantra.

As weeks turned to months, it was clear that the return would have to wait. But, in that time, educators became more proficient with their technology, school IT admins were able to distribute devices to staff and students, and schools found their footing in a new normal.

Now, as students are back in the classroom, school districts and educators face new challenges—mainly how to incorporate technology to create an equitable, secure learning environment on a budget. School systems can't solve these challenges alone. They need technology partners who can provide them with affordable, education-first technologies and solutions that empower teachers and the students who rely on them.

Provide an Equitable and Personalized Learning Experience Anywhere

Personalized learning is critical in K–12 education, especially with the struggles students face returning to school after the pandemic. Personalized education ensures that students aren't left behind by allowing students to work at their own pace and promoting inclusivity. With more than 2.5 million students struggling with learning disabilities, technology providers must be able to provide a learning experience for students of all abilities and learning styles.

Technology features, like live captions, voice typing, focus sessions, and screen narration, assist students with disabilities or different learning preferences. High-definition video conferencing encourages communication and collaboration with classmates from anywhere. Live captions make audio accessible for all students, whether they are hard-of-hearing, non-native language speakers, or in a noisy area. Students can also take advantage of automatic audio transcriptions across their devices and transcribe audio from websites.

Technology that promotes personalized learning impacts students' and teachers' education experiences. Allowing students to self-manage preferences promotes inclusivity and independence and enables them to learn in ways that make sense to them. For teachers, curated education-first apps and productivity tools facilitate learning by providing the visibility and insights teachers need to better understand where each student is in their individual learning journey and how to help them progress.

Enable Focused Learning Free of Digital Distraction

While most educators and administrators agree that technology can benefit the classroom, some express concerns over digital distractions. For technology in the classroom to be successful, it must facilitate a distraction-free learning experience for students. Familiar tools like Microsoft 365 allow students to focus more on their work rather than learning how to use new solutions.

These tools can also help teachers and students build healthy digital habits with features like focus sessions, which reduce clutter and minimize distractions, and do not disturb capabilities, which limit notifications, animations, and background images. Focus features create a distraction-free environment for students to accomplish more and improve their concentration skills, reducing anxiety.

Building these features into the device gives students control over their experience. Allowing them to choose when it's time to focus and providing them with familiar tools empowers them to make good decisions. It also frees up IT administrators who would otherwise have to enable these features for the students.

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Simplify Digital Learning with Easy-to-Use, Intuitive Features

Complicated technology solutions and clunky integrations take time away from dedicated learning hours and create headaches for school IT admins. In a recent study, 87 percent of teachers admitted to spending more time troubleshooting technology problems and less time teaching. The management of Education technology must be versatile enough to accommodate teachers' needs but simple enough not to hinder the learning process.

Requirements for Student Devices:

Students need intuitive and easily navigable devices with touchscreen capability and digital pen. Devices with long battery life allow for a full day of interruption-free learning. Additionally, they must start and run quickly. Lag times are opportunities for distraction. School systems want devices with longevity that will run at optimal performance all year to prolong the time between refreshing devices and minimize the work for IT teams.

Requirements for School System Solutions:

Education-first tools like Microsoft Intune for Education—a cloud-based mobile device management (MDM) service for schools—help teachers and students stay productive on classroom devices and keep school data secure. Intune can be used to deploy settings, apps, and tools all users need to support learning goals.

• Students enjoy a personalized learning experience with age-appropriate apps that are easy to access through single sign-on and one-click access in collaboration apps to encourage participation, communication, and independence.

• IT admins benefit from streamlined deployment and setup, with devices preloaded with apps and remote deployment.

Teachers have easy access to student data and the ability to integrate seamlessly with third-party applications, like Chrome and Zoom, that they already use.

Create a Secure Environment to Promote Safe Learning

Cybersecurity incidents in education are steadily rising. Even before the remote learning of the pandemic, one school district in Kentucky lost 3.7 million dollars in 2019 due to phishing attacks. School districts have even more cybersecurity concerns now. Increases in ransomware attacks, data breaches, and phishing emails make it crucial for school administrators and IT teams to protect student and teacher data, identities, online spaces, and devices.

Anti-virus solutions protect from outside threats by detecting and blocking malware. But school systems have the added need to protect students from themselves. In 2017, more than one million minors fell victim to identity fraud. So tools that block unsafe web content and downloads, safeguard access and identities, and lock down potentially dangerous apps are crucial to school systems.

Additionally, they need cybersecurity solutions that provide simple-to-manage secure experiences from streamlined deployment to straightforward management throughout the life of the device, all while optimizing device performance.

When budgets are tight and lean IT teams must manage many devices, constant monitoring isn't an option. Instead, features like IT-only access to control downloads and remote device management can help a thinly spread IT team be more effective

Stretch Tight Technology Budgets to Improve Tech Access

Very few school systems have an excess of funds in the budget for technology. Ninety-one percent of educators claim budget is the number one obstacle to providing technology to students. Yet, most teachers and students (87% and 75%, respectively) expect to be using more tech in their classrooms—so how are school districts supposed to balance their budgets with providing equitable access to technology?

Affordable Windows education-first devices and solutions are vital to helping school systems overcome this challenge. Customizable, education-first solutions provide everything needed to create a technology-immersed learning environment without the investment in additional software and the need to patch together solutions.

Some school districts are shifting budgets to technology and finding that they can do more with their budget despite the increasing demand.

"Over the intervening years, my budget has not grown very much. That tells me that we are saving the district thousands of dollars. We're doing more with technology rather than with people." –Larry Dugger, Director of Computer Technology Support, Davis School District, Layton, Utah.

Davis school district has increased device usage by more than tenfold in the last 20 years. Even with tight budgets, innovation is worth the investment. But there are ways for schools to save on new technology solutions.

Technology Isn't a Turnkey Solution to All Digital Education Challenges

Buying the right solution doesn't solve digital education challenges on its own. It must be implemented correctly, and districts need to know the best way to mobilize technology to create exceptional learning experiences. Without the right technology partner, implementing a new solution takes time, IT resources, and several rounds of trial and error that can disrupt educators' ability to teach.

Simplify Configuration and Deployment to Take the Weight Off IT Admins

The deployment of hundreds or more devices across a school district can be a lengthy process. During the pandemic, school-wide deployments were handled in a matter of weeks, leaving educators and school administrators scrambling to set up and manage these devices. Some school districts even lost devices in the chaos. However, the process can be simplified and expedited.

Connection's Technology Integration and Distribution Center can deliver a district-wide deployment of devices configured to each school's needs for out-of-the-box readiness. Connection can tackle provisioning, imaging, kitting, and asset tagging prior to deployment to help alleviate the work on IT teams.

In addition, the Connection Microsoft White Glove Configuration Service helps schools get their Windows Education endpoint devices up and running quickly, easily, and in accordance with specifications. That way, schools can meet required implementation deadlines and free up their IT staff to work on other projects.

Get Educators the Professional Development They Need to Maximize Technology Benefits

Following closely behind or in tandem with deployment is teacher training. While nearly 90 percent of teachers said their skills improved during the pandemic, new technology always requires more training. Education technology is a rapidly growing industry, and if school districts want their educators to get the most out of their technology, formal training for professional development is the key.

Connection is a certified Microsoft Global Training Partner. Our in-house trainers are former teachers that can work with school districts to deliver resources and instruction to educators on the best way to utilize their Microsoft products to create a personalized learning environment.

Working with a partner, like Connection, to procure development minimizes costs, streamlines the procurement and contracting processes, and gives school districts easier access to necessary training and development courses to optimize technology investments and tools.

The courses assist teachers with integrating appropriate and meaningful instructional technology tools for effective teaching and learning. We offer webinars, as well as in-person and virtual training solutions that allow teachers to choose training that is relevant and meaningful to them, their classroom, and their students.

Optimize Security with the Help of Professionals

Cybersecurity management is a many-headed beast. Phishing emails and ransomware are constant threats. This is especially true in education, where there are hundreds of devices to monitor and students who may not recognize when an email or website looks suspicious. In a recent study, 13 percent of schools analyzed were infected with ransomware, the most of any sector.

Connection offers advisory services to help optimize school system cybersecurity. They will assess the school's environment, identify risks, and provide strategies to remedy unsafe areas. They can also continue to work with schools to maintain a secure environment through managed services, 24/7 monitoring, and incident response.

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Rise to the Cloud to Support Education

The urgency of adopting and utilizing cloud technologies is apparent in the education industry. Not only can cloud help modernize legacy on-premises infrastructure—and help school districts save money—it can enhance student learning experiences. When you partner with an MSP like Connection, you get access to all our experts without having to add full-time resources to your internal headcount. This can also help lift some weight off your IT team so they can focus on supporting your strategic initiatives to build student-centered experiences.

With an MSP, you not only get experts to help manage migration and deployment, but you also have our team actively monitoring your environment and responding to issues as they arise. Connection is also a Microsoft Azure Expert MSP. From handling workload migrations to constructing customized cloud solutions, our experts can ensure your Azure environment is working the way you need it to—at a cost that won't break your budget.

A successful digital education strategy isn't just about the technology — it's about empowering the people who use it.

Get More for Less with Special Government Pricing Contracts

School systems spend more than 300 dollars per student on digital education solutions and devices. Providing equitable access to technology for all students can easily cost school systems hundreds of thousands of dollars. When the budget doesn't allow for this kind of technology spend, school administrators are forced to make hard decisions. To avoid this, school administrators must take advantage of every opportunity to save.

We offer government pricing contracts for hardware, software, and services. School districts that work with Connection enjoy cost savings for best-in-class hardware and software from a vast network of vendors. They also get premium cloud, networking, security, data center, mobile device management, and other services from industry experts. By bundling all technology needs with Connection, schools get more value at lower costs.

Bridge the Gap Between Teachers and Technology

The pandemic was a testing ground for what education looks like when students must rely on technology without the stewardship of their teachers. Some kids returned to the classroom more than two years behind in reading and math.

The biggest lesson here is that a successful digital education strategy isn't just about the technology — it's about empowering the people who use it.

Education needs more than technology suppliers. It needs technology partners who understand the hurdles school districts face and can provide the solutions, services, and training to overcome them. For school districts struggling with their current technology or looking to make updates, Connection and Microsoft are here to help with the hardware, software, and services to empower teachers and their students to learn within and outside the classroom.

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