Connected Devices, Streamlined Learning

A LOOK AT HOW DEVICE DOWNTIME HURTS STUDENT LEARNING — AND WHAT TO DO ABOUT IT

The widespread adoption of technology in K-12 learning during the pandemic has enabled distance learning, personalized instruction and many other classroom benefits, but this new reality comes with challenges.

In the US alone, Education Week found that 84% of elementary schools and 90% of middle and high schools have adopted one-to-one device access for students. Furthermore, during a November 2022 survey of 171 US-based teachers, LocknCharge discovered that 59% of teachers require the use of a device during class three to five times per week on average — and 55% of teachers require the use of a device at home at least one time per week on average. These findings demonstrate the dependence on device usage for student learning.

As a result, schools are now undergoing a regular "computing device return-and-repair ritual," EdSurge reports. In Atlanta, lost or damaged devices cost the public school system $3.5 million in one year, with about 11% of devices issued to students never returned.

As more schools see the benefits of equipping students with devices, these costs are becoming a permanent part of the school budget. However, putting the right systems in place can go a long way toward helping schools operate technology efficiently and effectively.

The benefits of keeping devices charged, safe and operational can't be understated: Technology is helping to prepare today's students for tomorrow's workforce, and it is ushering in a new era of personalized instruction that helps improve outcomes for all students.

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All over the country, school districts are going to great lengths to keep devices working at peak performance — knowing full well that if they do not, teachers may ditch them altogether, reverting to pen and paper, EdTech Magazine reports.

Given these risks, schools should take the effects of lost and broken devices seriously.

THE CHALLENGES OF DEVICE DOWNTIME

Learning outcomes are greatly affected when a student or teacher doesn't have a working device in hand for instruction, class participation or homework. When an electronic device used for learning breaks or has any other downtime issues, the student is quite literally locked out of their learning resources — plus, there are other classroom implications when devices aren't available.

In fact, the same November 2022 LocknCharge survey revealed that 57% of educators are helping to replace student devices at least one time per week on average, taking time away from teaching.

In addition, of the educators surveyed, 63% stated that students who do not have a working device at school experience lost learning time.

There is also the issue of device and data security, which is more difficult to manage when students are using their own devices, or those of parents. A school-issued device maintained with security and data protection in mind is a safer one, both for the student and the district. Data and other security falter when a student has to fall back on a home-sourced device.

And what happens when that device is lost? Just take the massive security breach of Illuminate Education in January 2020, for example. It has raised questions about the safety and security of student data in this new era, and that makes it more
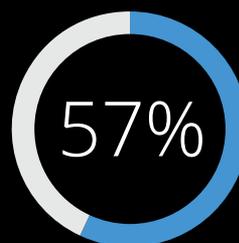
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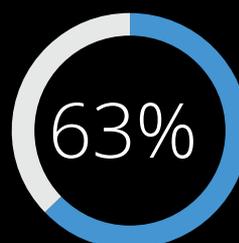
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important than ever for schools to adopt security measures for devices. All of this is more easily managed through school-issued devices, and having backups readily available.

REAL-WORLD EXAMPLES OF KEEPING STUDENTS ONLINE, PROTECTED

In the past, minimizing the effect of student device downtime has been a challenge, but thankfully, tech-savvy districts are finding ways to greatly reduce the problem.

1 **Oklahoma's Moore Public Schools**
Instruction at Moore Public Schools in Oklahoma is spread across 36 sites and about 136 square miles. The costs of managing a 1:1 device system can quickly add up when it can take a 30-minute drive to deliver a device to a teacher or student. And when parents are asked to drive that distance to pick up devices for their children, equity concerns emerge that could leave some families without access to the technology needed for students to excel in school.

Earlier this year, the school system began piloting LocknCharge's FUYL Tower Smart Lockers and the IncidentIQ Help Desk ticketing system integration to better manage their device infrastructure and offer students a way to easily access devices when they need them.

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> — Jun Kim
> **DIRECTOR OF TECHNOLOGY, MOORE PUBLIC SCHOOLS**

The towers are placed in high school and college media centers, for example, where staffers and students can check them out as needed.

Now, rather than trade emails back and forth with a student to schedule a broken device exchange, the technology team can remotely issue a device to that student via one of its FUYL Towers. Students can quickly and easily swap out the broken device for a new one at their convenience.

"This level of technology operations is a must-have in today's learning environments," says Jun Kim, Director of Technology at Moore Public Schools.

"The goal is to be close to zero downtime for any event that takes students and teachers away from engaging and effective learning," Kim says. "It's essential to utilize technology as a tool to help increase our student achievement and to help prepare those students to thrive in that digital college or digital career environment.

Smart Lockers Help Schools Manage Devices Efficiently

Automation technology is making it possible to reduce the time technology departments must spend addressing issues such as damaged and lost devices.

When it comes to designing products for educational settings, LocknCharge has more than 20 years working directly with school districts to meet their needs. The company is the leading global manufacturer and supplier of mobile deployment solutions with headquarters in Australia, the USA, Europe and Japan.

Recently, the Los Angeles Unified School District, the second-largest system in the US, turned to LocknCharge for autonomous checkout smart lockers, so students and educators can access charged and ready-to-use devices more conveniently. LAUSD's decision to add 1,800 LocknCharge FUYL Towers was originally prompted during the COVID-19 shutdown. The district needed a way to distribute devices safely to students and parents in a manageable way. "After vetting different vendors and companies, we felt that LocknCharge was the best fit and product option for the district," said Phillip Lucero, Senior IT Business Efficiency Analyst at LAUSD.

What started as a solution to a device management crisis has morphed into an in-person assist, too. LAUSD students and teachers rely on the LocknCharge lockers to reduce in-person downtime from lost, forgotten or broken devices.

"Reducing device down time for students and teachers means more classroom interaction for students. Device down time means less classroom instruction, and the students lose valuable class learning experience," Lucero said.

School districts of all sizes can benefit from what LocknCharge offers, from a single tower to hundreds, with features such as overseeing bay reservations remotely, tower usage reports, external user directory integration and external ticketing system integrations.

At Moore Public Schools, Kim says working with LocknCharge has offered "amazing" results.

"They look at how they can incorporate a technology or tool to make it more efficient with the school and classroom in mind," Kim says. ∎

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"The biggest challenge when it comes to devices is that accidents happen," Kim notes.

Kim's team has established a process to address that, from steps teachers can take to troubleshoot devices to ways they can easily swap out devices when they require repair.

Without an automated process, the district would "definitely increase time and energy," Kim says, and take away from time that could be spent resolving other issues.

2 **Oregon's Beaverton School District**
The Beaverton School District in Oregon serves over 60,000 students. The schools rely heavily on an online learning management system for its curriculum, meaning students must have access to technology at school and at home, explains Mac McMillian, the district's Administrator for Information & Technology.

"In most cases, without the technology, they cannot complete their work," McMillian points out.

The biggest challenge is in classrooms, which were not built with the idea that every student needs access to a charging port.

"We have to rely on the students to arrive at school with a charged device or have a stockpile of loaner devices for them to complete their work," McMillian says.

At the onset of the pandemic, Beaverton School District invested in 10 LocknCharge FUYL Tower Smart Lockers to provide students a contactless way to exchange devices during remote learning. Now, those towers are serving as charging stations and lockers for safe storage overnight when students don't need to take devices home. They also house backup devices that are checked out when students experience breakage or other issues that slow down their connected learning.

McMillian says the district hasn't yet quantified the savings from their deployment

of smart lockers, but the qualitative benefits are evident.

"The towers at the central office are saving a significant amount of time for both our staff assigned to the central office and to those needing to retrieve or drop off equipment or materials. They no longer have to wait for someone to come meet them, they can securely drop it for them, and our central staff can pick it up at their convenience knowing exactly where it is located," McMillian adds.

CONCLUSION

The shift toward technology-driven education is an unstoppable phenomenon that preceded the pandemic and has been expedited as a result of it. Many districts see the potential to improve learning and better equip students for the future by availing the benefits of devices.

Yet the maintenance, oversight and replenishment of these devices is a significant new cost for districts that can serve as an impediment. That's why it is crucial for technology teams to put the systems in place to minimize learning disruptions and manage devices efficiently. ◼

ABOUT LocknCharge

LocknCharge is a software and hardware company that is revolutionizing the way organizations manage mobile devices and other physical assets. During their 20+ years of experience, they've come to understand many of the challenges organizations face with device management.

LocknCharge exists to help schools and businesses uncover a better way to manage devices with less oversight, secure devices from theft, and minimize device down time.

Their portfolio of Cloud-Connected Smart Lockers will not only save time, money and other resources — they will also make your life easier.

LEARN MORE

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