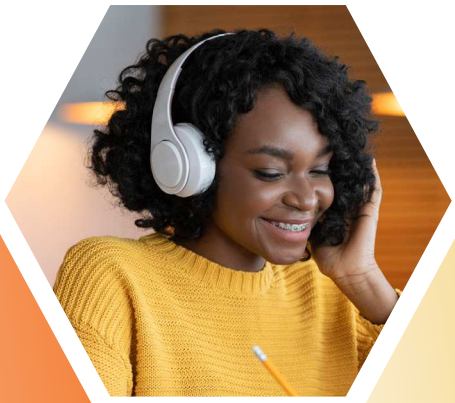
CoSN
LEADING EDUCATION INNOVATION

ED TECH NEXT:

Integrating Permanent Ed-Tech Solutions in a Post-Pandemic Educational Landscape



Educational technology (ed-tech) changes made necessary by the COVID-19 pandemic and the subsequent shift to remote or hybrid learning have created an opportunity to reimagine education to improve classroom experience and overall educational mobility in a post-pandemic environment. In this report, CoSN will endeavor to identify what changes should endure, which were most embraced by stakeholders, and how to permanently integrate them to improve overall learning.

INTRODUCTION: TURNING URGENCY INTO OPPORTUNITY

On March 13, 2020, the world changed forever. Global lockdowns and mandatory social distancing spurred by the arrival and progression of the COVID-19 pandemic fundamentally altered every aspect of life, including the way we work, the way we relate to each other, and especially the way we learn. By March 25, 2020, all public school buildings in the United States had closed in response to the rising threat of the coronavirus, with the exception of Montana and Wyoming, which remained open through the end of the year.

With these changes, we saw the very fabric of learning, from elementary education to postgraduate education, change when the ability of teachers and students to interact in person was no longer available. By the end of 2020, nearly 93% of people in households with school-age children reported their children engaged in some form of "distance learning." Teachers, administrators, parents, and, most of all, students, were immediately required to adapt to a remote learning environment.

The Learning Curve

This essential adoption of these changes created a sharp and initially disruptive learning curve for many school systems, particularly those without resources and funding to quickly adapt to the new changes. To compound these initial challenges, the fluid nature of the pandemic, including the different levels of transmissibility among the multiple strains of the virus, has made a "return to normal" incredibly difficult, making robust and permanent hybrid-learning resources increasingly necessary.

Now, as 38 states, with possibly more to come, approve permanent virtual learning options for schools, it's clear that this trend, at all levels, is here to stay. This makes it more important than ever that stakeholders are equipped with the right tools and resources to make a seamless transition. These resources must account for all academic variables to literally and figuratively meet students where they live and adapt to create an experience that emulates and advances in-class learning while keeping them safe, focused, and on track for success.

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Effective and Equitable Delivery of Online Learning

CoSN's most recent *EdTechNext* report, *Low-cost, High-impact Tech to Address Digital Equity*, identified digital equity as the top hurdle facing education. The report detailed that to achieve digital equity, it is not enough that learning communities have access to devices and the internet. It's essential to have access to high-quality instruction, content, and resources that recognize and value remote and blended learners' needs and variability.

The COVID-19 pandemic presented an opportunity to create a more effective and inclusive framework for remote learning by focusing on a variety of technical, social, and logistical factors. In their report entitled: *Remaking Tomorrow: Learning in A Post-Pandemic Future*, educational thought leader Knowledge Works suggests zeroing in on three fundamental areas for effective dispensation of learning:

Justice - Ensuring every student has equal access to learning resources, regardless of location, race, economic status, or any other factor, and actively working to dismantle cultural and socioeconomic imbalance in education.

Methodology - Creating practical, realistic, engagement, and measurable learning practices that can maximize the effectiveness of remote learning and integrating learning practices that support learners' and educators' health, wellness, and human development and cultivate their capacity to navigate rapid social and technological change.

Relationships - Recognizing that everyone has a role to play in the successful shift to remote learning, prioritizing meaningful relationships among learners and their families, peers, educators, and mentors; forging engaged partnerships.

TOPIC 1: WHAT DID WE LEARN

A fundamental shift in learning like the one brought about by the pandemic revealed many lessons regarding what is required, what can be refined, stakeholder preparedness, and resiliency and adaptability. Here are some key highlights regarding tools and practices adopted to accommodate the rapid changes.

The Tools

This shift required multiple layers of tech integration and best-practices consideration for practical application. This not only means making sure 1:1 devices and internet connectivity are available for every student; it also means ensuring that platforms, practices, and protocols are in place to ensure every student is given a chance to avail themselves of these tools.

The pivot to remote learning revealed a myriad of fundamental needs for seamless partnership and communication between educators, students, administrators, and parents. Examples include tools that:

- Facilitate real-time collaborative virtual bulletin boards, on which users can upload, organize and share content.
- Seamlessly bring teams together while creating intuitive, dynamic, and personalized experiences.
- Create an environment and framework in which teams of two or more can quickly identify and solve problems and brainstorm.
- Quickly prioritize and organize workflow based on needs and present a hierarchy of projects in an easy-to-understand and digestible format.
- Allow teachers to facilitate video discussions in both group and individual settings for collaborative and one-to-one engagement.
- Seamlessly combine text and graphics for remote lessons and class-facing reports.
- Provide student accountability and compliance through monitoring of attendance and participation.
- Ensure seamless communication with parents to monitor student progress, disciplinary issues, and mental health.
- Protect students' privacy and safety when data-sharing.

Harvard professor, long-time remote learning advocate, and pioneer in implementing best practices and tech for online education Chris Dede and his colleagues have implemented a program called Silver Lining for Learning, which focuses on the future of learning with educators and education leaders from across the globe. Some of the many concepts discussed in the series include:

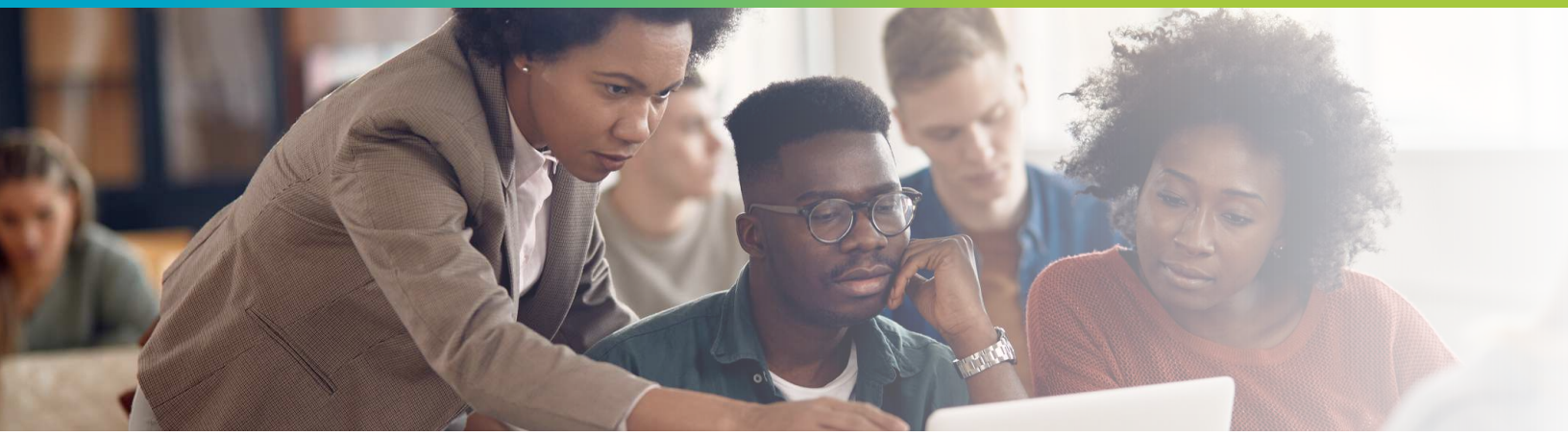
- Global Lessons on How Learning Continued during the Pandemic
- Harnessing Technologies to Create Immersive Experiences
- Life and Learning in the Metaverse
- Human-Centered Approaches to Education, Philanthropy, and Systems-Change
- Planning for A Blended Learning Future
- Education Enabled by Technology

While these conversations began as a means of dealing with learning shifts brought about by the COVID-19 crisis, they continue today and provide a space to discuss the creation of equitable, humanistic, and sustainable learning ecosystems that meet the needs of all learners, educators, and other stakeholders.

Aligning Stakeholders on Tech Tools

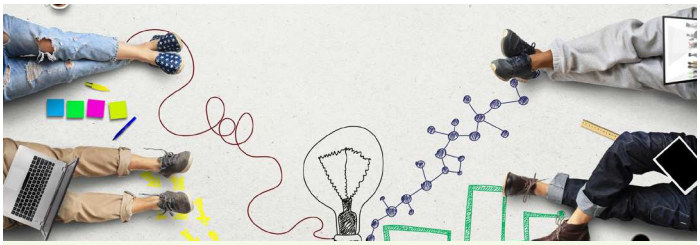
It is also critically important to ensure that teachers, students, and parents are all using the same tools for the sake of continuity and common understanding. Adrian Acosta, the Officer of Academic Instruction Technology at Houston Independent School District, described the specialized importance of challenges of accomplishing this task in a decentralized district, where different schools were using different tools: "What we found at the beginning of the pandemic was that this wasn't necessarily the best approach. We could not provide support in a virtual environment to everyone equitably. So as a result, we started to streamline some of those items."

Deciding on a streamlined and universal set of tools allowed school districts like Acosta's to quickly deploy effective professional development and training resources to flatten the learning curve and facilitate an easier transition: "From the top down, we were able to start providing professional development and structural instructional practices because even when we provided the teachers training, a lot of them were not really aware of all the things they could do."



Teacher Adoption of Online Learning Technology

At the elementary through high school levels of education, we see that more guidance is needed to help students transition, particularly for students in lower grade levels. This means more granular management of ed-tech implementation, as well as additional tools that make actual learning and subject-matter retention easier in a remote environment. For many districts with a less robust or non-existent 1:1 tech integration model, this first meant getting actual devices into the hands of students.



"Before [the shift to remote learning], we had classroom carts that were often shared among different grade levels," says Talya Young, Principal at Aspire Online Academy of Harrison School District Two in Colorado Springs. *"With the shift, we needed to get every student a device, which in our case turned out to be Chromebooks."*

Young and other educators and administrators continue to face the task of making sure students have the proper level of support in the management and utilization of these devices. Her district opted to use classroom management software built right into the devices, thus eliminating any extra cost.

"That was a big support for teachers. They were actually able to see what the students were doing, push blank pages, see if they were in the correct location, and more." These no-cost software solutions are built right into devices' internal development structure that teachers and administrators can use to better interact with students and maximize learning. "It's now a part of our online academy."

From there, districts like Young's also made significant inroads toward optimal remote learning simply by modifying their established online curriculum options, which were made possible in part by these ready-made, device-integrated resources. They also integrated tools that allow teachers to receive an immediate response in live sessions without them having to wait for instructors, including but not limited to:

- Student engagement tools that offer real-time insights into student understanding through interactive lessons, interactive videos, gamified learning, formative assessment, and activities.
- English-language course programs that offer an online learning tool to facilitate student-teacher engagement and maximize progress.
- Free apps that allow students to work on assignments with their Chromebooks, laptops, or tablets while instantly getting help from teachers and peers.

Their LMS has also played a critical role in the pandemic-related shift to online learning. This trend of Digital Collaborative Environments was also identified as one of the key Tech Enablers in the 2022 Driving K-12 Innovation series. These tools and the aforementioned collaboration and project-management software resources are examples of resources that continue to facilitate collaboration and can be integrated as a permanent part of the modern public education and collegiate learning model, but that is just the beginning. We can go deeper when we examine subject-specific resources that translate seamlessly to online instruction.

Ensuring Equitable Student Access

Educators also came face to face with the severity of the homework gap caused by the digital divide and the difficulty of providing equitable internet access to facilitate a seamless digital transition in rural areas and underserved communities. Through resources such as government grant programs and partnerships with telecom companies, teachers and administrators worked hard to fulfill the mandate of universal access to digital tools. We will elaborate more on specific district approaches in subsequent sections.

TOPIC 2: CAPITALIZING AND REFINING GAINS

It seems counterintuitive to mention any "silver linings" when it comes to the COVID-19 pandemic, particularly in the context of educational instruction when teachers, administrators, and parents are experiencing unprecedented mental health struggles due to professional stress and anxiety. This shift, however, represents an opportunity to adapt intuitive, seamless, affordable, and culturally competent remote instruction options that address the different ways students learn and thrive in their education.

The pandemic, for good or bad, showed us what COULD be done in remote learning in a very short amount of time. Now, as the world settles in for what more and more experts say will be a life of COVID-management and risk tolerance, educational institutions at every level have the chance to empower students and parents who are ready to embrace remote learning, as well as teachers and administrators in charge of instruction, by identifying, adapting, and refining tech-based resources that work for their specific student population.

There is no question that in-person academic instruction provides an unmatched opportunity for student-teacher engagement and peer-to-peer collaboration; however, remote learning options, when applicable, provide a variety of educational, social, quality-of-life, and mental health benefits:

- Seamless continuity of education during a prolonged absence for medical or personal reasons.
- Creating a more conducive environment for students who learn differently.
- Opportunity for increased personal instruction and interaction.
- Reduced social anxiety (over 9% of students battle social anxiety as a direct result of their in-person academic experience).
- Greater opportunity for self-paced learning for remediation and acceleration.
- Flexible scheduling opportunities for students who have to work or care for family members.

The pandemic was something for which no one asked, and we will be navigating its aftermath for decades after it finally subsides; however, ***there is a unique opportunity*** *to* ***extract the positive elements*** *of the change that it brought to further* ***refine, improve, and enrich the education and instructional experience*** *for all involved.*

This will never be a one-size-fits-all effort, as the needs of each institution or district will vary based on budget, size, and other factors. Nor will every aspect of current solutions apply to future institutional aims and ambitions. The task ahead of the education landscape at large is to examine the multiple elements of pandemic-rooted remote education and determine:

- Which Elements Were Successful or Problematic
- Why They Were or Were Not Successful
- The Ease or Difficulty of Past and Future Implementation
- Advantages or Disadvantages
- Impact on Students, Parents, and Teachers
- Benefits and Accessibility for Underserved Students

One of the lesser-discussed, but no less meaningful, benefits of early adoption of remote learning is that it prepares students to maneuver and thrive in an inevitably shifting remote professional landscape. Chris Dede says, "I deliberately pick tools that are valuable for use in life. The kind of projects people do in courses should be part of your professional portfolio. The tools are introduced because they're the kinds of tools that people can use in the workplace."



Technology as the Great Equalizer for Teachers and Students

Every student learns differently, and every subject (math, science, reading, civics, etc.) often requires its own type of engagement for maximum retention of course material. In other words, there are ways to get the most out of a reading lesson in an online environment; and these methods often differ from those used in math instruction.

More and more tools are emerging to address these subject-specific learning distinctions. For example, as part of its shift to online learning in the wake of the pandemic, New Jersey's Highland Park School District integrated multiple specialized resources, including:

- Tools that allowed math teachers to mark up and correct PDFs by turning static documents into digital assets after mark-up. These significantly improved students' graphing skills.
- Resources that helped students access online reading resources for easy digital access, including books and other study materials.
- Software that provided seamless access to virtual labs, which helped student engagement and aided in retention of the subject matter.

Separate and apart from these tools, other districts around that country are using a variety of other software suites and packages, including but not limited to the following:

Math-Specific Online Learning Resources

- Web-based assessment and learning systems that use adaptive questioning to determine students' needs.
- Tools that provide e-textbooks, answer keys, video lessons, and printables for students and teachers of algebra 1 and 2, geometry, and trigonometry.
- Websites that provide complete lesson plans, mobile games for students, interactive activities, and brain teasers.
- Tools that recognize handwritten math problems and provide step-by-step solutions.

Reading-Specific Online Learning Resources

- Interactive online episodic series to teach K-5 students the reading fundamentals and comprehension skills they need to become successful readers.
- Programs for all grade levels up to eighth that provide solutions for the classroom, whole-class instruction with digital materials, small group instruction for guided reading and student book clubs, and independent reading.
- Digital repositories of downloadable, projectable, printable teacher materials covering all the skills necessary for effective reading instruction.
- Programs that "listen" to students read aloud and provide immediate analysis and feedback.

Science-Specific Online Learning Resources

- Digital suites of science resources for online learning that can be separated by grade level for easy teacher adaptation. Resources should be offered in all media, including audio, video, images, PDFs, etc.
- Lab and homework resources for students, parents, and educators, including games, homework aids, lesson plans, and even tools for parents.
- Fully immersive VR experiences for students to explore the oceans and outer space.

Educators and administrators have access to a wide array of intuitive programs that can be easily and safely implemented in an online environment. This is also an opportunity for developers of educational software to improve and streamline access to accommodate students' diverse learning needs and aptitude levels.

It is important to realize, however, that these resources must be offered strategically with a framework for successful implementation, including but not limited to:

- Consistent support in program use and adoption
- Means of benchmarking and accountability
- Measuring the return on learning (ROL) considering the cost of some technologies
- Opportunity for feedback from students and colleagues
- Actively seeking out content that can be easily adapted to digital environments
- Combining core concept learning with customized and personalized learning

It is also important to develop a set of clear and realistic expectations for these tools, and digital learning practices, at large.

Students Adapting to Technology and Practice

On a broader level, these solutions not only help to increase students' retention, aptitude, and comprehension level, they also have the potential to create a whole new world of academic and cultural engagement opportunities for students who would have, in the past, struggled to access the material. They literally and figuratively meet students where they live, addressing all types of factors that can inhibit learning, including academic, behavioral, familial, and even occupational. They provide an "out-of-the-box" approach to education while still keeping students engaged with basic educational best practices in the absence of consistent classroom or peer-to-peer interaction.

For students with complicated family dynamics, behavioral and/or mental health issues, developmental delays, immunodeficiencies, and other factors that keep them out of school, these programs can be an extension of teacher involvement, providing person-to-person interaction, and even actual hand-written corrections, albeit rendered into a digital form.

Alongside these resources, some of the best practices for engagement may include, but are not limited to:

- Checking in Before and During Lessons - Ensuring students have all required material, understand the technology, understand the expectations for effective and responsible participation, etc.
- Prioritizing Students' Wellbeing - Ask about students' feelings in creative ways (allow them to use emojis to respond to how they're feeling; integrate timeout or "lightning round" sessions to quickly check in; give students agency to disclose how they're feeling in their own creative and classroom-appropriate responses.
- Putting in the "Facetime" - Create an environment where students, teachers, and aides are expected to always appear on video. Using the video function will help students stay focused, help you assess engagement, and encourage relationship building between students. Educators can make students who are more anxious or self-conscious about their home environments more at ease by using video conferencing software where they can easily change backgrounds.
- Keeping Lessons Short and Engaging - Structuring lessons into five to ten-minute segments for sustained interest and retention, using a variety of media, offering personalized learning experiences.
- Offering as Many Opportunities as Possible for Engagement - Using chat functions, polling features, digital bulletin boards, emojis, etc.
- Using Breakout Rooms - Assigning students to breakout rooms so they can work in smaller groups, as they would in an in-person classroom environment.

Approximately 70% of students with learning disabilities spend around 80% of their education in classrooms designed to educate the general population. Additionally, many students struggle with at-home obstacles that simply prevent them from getting to school on time, if at all. Continued integration of these online learning tools can provide a game-changing difference for their chances of academic success. As we have seen with the hastened integration during the pandemic, however, these changes come with their own set of challenges that must also be addressed for optimal success.

TOPIC 3:
PLANS FOR SUSTAINING THE TECHNOLOGY

While the complete and full integration of remote learning took some getting used to and was born under hasty and less-than-perfect circumstances, educators, administrators, and students alike are seeing the value of many of these elements and embracing their continued utilization even after the pandemic subsides. "I do believe that online options should remain available," says Young. "It allows our families to be more flexible and allows our students to have the learning option that's best for them."

Aspire Online Academy Principal Talya Young and other educators recognize the need for fluid examination of online and hybrid models based on emerging and adjusting tech needs. "That has to be looked at and adjusted, so we're still providing variety and diversity in education." Educators and administrators specifically point to the value of virtual meetings and virtual learning tools to be integrated how and whenever applicable, even if it is not the only option and even if the tools are made available alongside in-class instruction.

The Good News...

Many educators and administrators, like Young and Kelly Lane, Director of Learning Technology at Clear Creek Independent School District, are in it for the long-haul and already have plans for permanent adoption beyond the urgency of the pandemic: *"Our focus was not to start with a band-aid, but instead focus on processes with which we were going to be moving forward.* Even though we had an LMS, we did not have an LMS consistently in place. During the shift, we put this practice into place and have seen growth all the way from kindergarten to high school," says Lane. "So we now have a K-12 platform, along with a solid understanding of how to use the LMS for instructional design."

Educators also think that anything that gives students more choice should endure, including different reading styles, resources, and applications that provide opportunities for different learning, screen-casting for better collaboration and subject matter retention, and others. Further, there is an opinion among many educators that the rapid implementation of remote learning laid bare improvable areas in traditional instruction.

"Now the big thing is shifting over. How do we now transfer all the digital skills that we learned into in-person skills and still use the technology at hand?"

- Adrian Acosta, Officer of Academic Instruction Technology at Houston Independent School District

Supporting and Advocating for Underserved Communities through the Transition

The reality is that there are still between 9 and 12 million school-aged children in the United States that do not have access to the internet. In order for the full-throated implementation of online learning to be successful, proactive and substantive intervention must occur at the federal and community levels. School districts across the country have sought billions in federal dollars for increased connectivity and access, particularly in rural areas where internet access has been an enduring problem.

The American Rescue Plan Allocated $7.17 billion in federal funds to close the "homework gap" through the Emergency Connectivity Fund, launched by the Federal Communication Commission earlier this year; however, these funds are at risk of expiring, creating a step backward for equitable internet access.

Primary Challenges and Obstacles of Widespread Online Learning

The haste and urgency with which online learning was integrated, albeit out of necessity, created a disruption for all stakeholders in the education paradigm, from top-level administrators to teachers, students, parents, and support professionals. The most significant obstacle for all involved was just how quickly the education landscape was forced to adapt. Under this umbrella, there were several related struggles, including but not limited to:

Steep Learning Curve for Education Professionals - As teachers were expected to pivot to an entirely remote instructional model, many faced serious struggles adapting the tech-based solutions that were

required and expected. This is nobody's "fault or shortcoming," rather a product of having to learn new practices and infrastructure on the fly. It was difficult, at first, for teachers to try and apply traditional teaching practices in a remote environment. "The teacher mindset was 'this was a lot.'" says Talya Young. "It was a whole lot for them to transition to these new circumstances." As the months progress, however, and consistent and reliable top-down strategies are adopted, teachers are finding their footing and their stride.

Parental Engagement - Parents also faced a severe learning curve and were called to take on more of a hands-on role than ever before in their child's education. Many, if not most, had to alter their work schedules, and many working parents simply dropped out of the workforce altogether. These struggles translate to genuine pain points and persistent questions that can render them resistant to these changes. "A lot of what I heard from parents was that they wanted stability," says Talya Young. "They want an 'all-or-nothing' kind of stability so they can plan."

Additionally, some parents were incapable or reluctant to adequately engage with their child's new educational reality. One of the biggest challenges of all was implementing these tech changes in a way that was easy to access and understand from parents. "It has been communicated with us very early on that our parents struggle with being able to keep up with the number of tools that our students are being asked to use," says Kelly Lane.

In many districts, however, the necessity of collaboration compelled a marked uptick in parental engagement: "Parental engagement is up across all of our populations," says Acosta. "It was unknown territory for teachers and parents. They were trying to figure out how to best support their children."

Many districts responded by hosting parental tech nights, where parents can log in and get training on the tools and resources their children were using from ed-tech professionals.

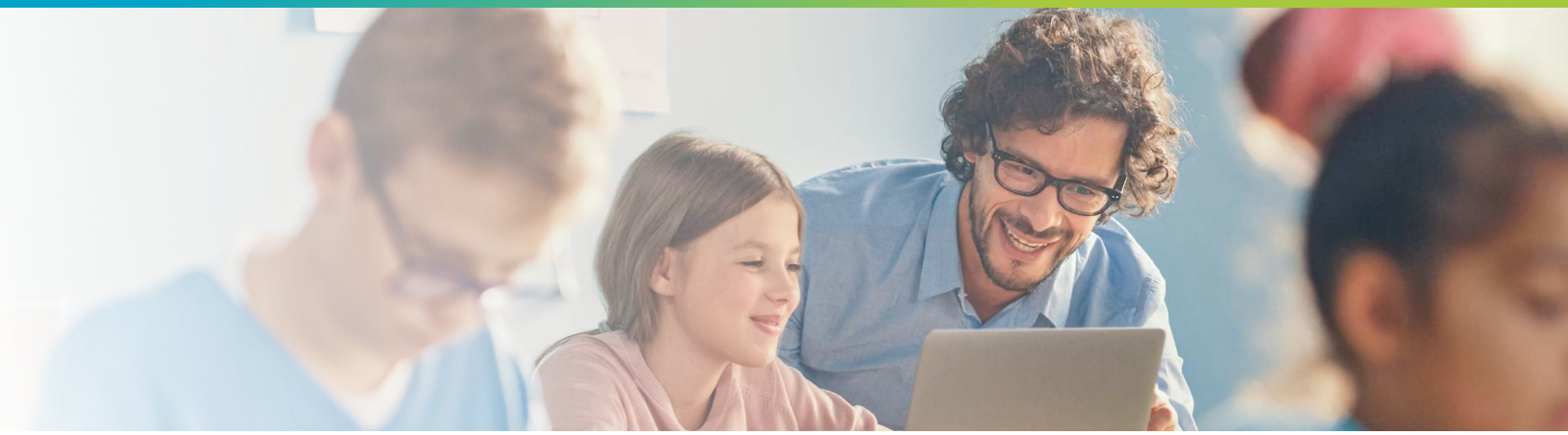
Lack of Institutional Preparedness - Educational institutions everywhere, at every level, were caught off guard by these massive changes in how instructional content is delivered and consumed. This uncertainty and frustration was felt at the elementary, middle, and high school levels, as well as when students tried to navigate the undergraduate experience. When they were entering their first year, many colleges were also unprepared for the shift. "It was quite a pivot for Harvard to have to abandon that stance and prepare faculty in the middle of the semester to do emergency remote learning," says Dede.

"We have learning technology coaches that support our 47 campuses. And so while we have instructional coaches that support technology integration, it didn't feel like we had complete buy-in of the use of technology," says Lane. "There's a fundamental belief in authentic learning experiences at the elementary level, which was a bit of a barrier at first. Our curriculum wasn't written for technology, and all of a sudden, it was essential for technology to be in place. It was a very eye-opening experience."

Lack of Broadband Resources for Students - Many educators were, and continue to be, profoundly surprised at just how deep the digital divides are among their student populations. One of the largest challenges to overcome was ensuring that all children had access to the internet to successfully engage in online learning. "That is something that was a huge eye-opener." Young was able to address this challenge by securing a VILs grant from Verizon for "hot spots." Organizations like Everyoneon were pivotal in connecting districts with low-cost access to the internet and devices. Their locator tool and robust network partnerships connected underserved communities with the resources necessary to make the transition to virtual learning.

"Our mandate was [that] everybody received a device, and that included a WIFI connection," says Acosta. He and other educators, however, are also finding out that supply-chain issues continue to affect student access to devices and WIFI hotspots, despite established agreements in place between districts and telecom providers.

The Highland Park School District faced a similar dilemma but used money from the CARES Act, as well as their Digital Divide Grant money to equip students with devices, as well as hot spots for those in need. **These two cases highlight the reality that continued prioritization of equal internet access to underserved communities is critical for the successful implementation of fully online learning for students.**



Student Engagement - Remote learning has admittedly led to increased rates of absenteeism and decreased work completion in many districts during the pandemic as districts grapple with accountability and attendance-tracking measures in the wake of the pandemic. Data from a November 2020 RAND study indicates the following:

- In-person teachers said 91 percent of their students were present every day
- Hybrid teachers reported 85 percent of their students attended daily
- Teachers who were fully remote estimated 84 percent attended daily

It is important to consider that these figures should be viewed through the prism of "early adoption" and that, like other logistical barriers, they can be improved with time and refined measures for tracking and accountability.
This requires buy-in from parents, teachers, and students, alike.

TOPIC 4: BEYOND THE SCHOOL WALLS

Since the advent of pandemic-mandated ed-tech resources, we have seen buy-in from stakeholders beyond the classroom, including parents and other community figures. This has created the opportunity for closer and more frequent collaboration in the daily and long-term educational landscape. This can include anything from deeper education of the tools for parents to more frequent video-conferencing collaboration between them and teachers.

We have also seen an undeniable impact on social interaction habits and overall mental health among American students; however, this may be directly attributable to the lack of preparation with which these changes were rolled out. Further integration provides an opportunity for refinement and more robust social-emotional learning practices, such as journaling, art therapy, virtual in-class meetings and check-ins, and more.

Another built-in improvement to expansion must be tools that create both accountability and support against isolation. Many, if not most, of the aforementioned tools come with ready made features to determine student participation and attendance. It is also possible that additional personnel can be trained to remotely monitor the use of student devices to determine their engagement. These measures will not only ensure that students do not fall through the cracks; they will also make sure that they are performing at their full potential.

Lastly, internet accessibility resources can be continued and, in some areas, expanded and improved to ensure all students have equal access to the required course material.

THE WAY FORWARD: PERMANENTLY ADOPTING COVID-ERA ED-TECH LEARNING

As teachers, students, administrators, and parents continue to navigate remote or hybrid learning, it is hard to ignore the benefits and possibilities that this shift offers. Regardless of how the shift in learning came to be or the circumstances surrounding its proliferation, it has created an opportunity to reimagine education so it works for all students. The public education landscape has a chance to adopt the best parts of COVID-driven remote learning policy and make instruction more fluid, intuitive, and streamlined.

Lane explained that the urgent need to come together so quickly during the pandemic has given teachers and students a voice, "We had to really reflect, review our practices, decide what tools we want to use and focus on consistency. That's what is helping us dive deeper into learning."

Every district, no matter what the nature of their student body and resources may be, can integrate remote learning in some form, however incrementally. This includes creating scalable, accessible, actionable alternatives to in-class instruction for students who, for whatever reason, struggle to thrive in an in-person environment. The student who falls ill or has a personal tragedy doesn't have to worry about missing valuable class time; students from complicated family dynamics can fully embrace education without worrying about the logistics of getting to school; the student with special developmental issues can get targeted and in-depth instructional time in an adaptive environment suited to their needs.

In our research, we have learned that educators value remote learning primarily because of the choice it gives students in all areas of education, from the way they engage with reading material to learning when it is most effective and convenient for them and their families and beyond. The rigidity of traditional classroom education is at odds with how many students learn, live, exist within a family unit, and internalize the subject matter. Online learning, delivered in a personalized and intuitive way, can innovate and improve customized instruction, skills assessment, and academic progress.

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This CoSN resource is related to the following skill areas from CoSN's Framework of Essential Skills of the K-12 CTO

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