Moving Forward: Assessing the Adequacy of District Technology

You can hunker down, but you can’t hide from the need for technology.

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Education leaders, especially those in charge of educational technology (EdTech), have hunkered down in the past several months, working toward a goal of ensuring that all students can access what are now primarily virtual classrooms.

Last spring, with no advance warning, more than 55 million students in the United States transitioned to remote learning. Some are labeling remote learning a “failure”; however, it’s important to remember that, in many cases, remote learning was the difference between “no learning” and “some learning.”

The core challenge is how to move forward and ensure effective continuity of learning for all students.

Some school districts were more prepared than others to move to an environment that permits all students to learn from home. Not all districts were at a one-to-one ratio of devices to students at the beginning of this pandemic; those districts that were not were suddenly at a disadvantage.

Many school districts are racing to catch up at a moment when major device manufacturers have reported delays in meeting a massive surge in demand. According to the CoSN (Consortium for School Networking) State of EdTech Leadership 2020 Survey, only 43% of elementary classrooms and 66% of high schools have achieved that one-to-one ratio.
School districts are also learning the hard way that creating a robust learning experience requires more than adding videoconferencing capability. It requires an array of tools that include a strong digital collaboration platform and teachers who are well-versed in managing an online learning curriculum and teaching effectively online.

The majority of teachers who completed CoSN’s technology peer reviews indicated that they have not been provided with the time and resources needed to develop their instructional technology skills. The lack of remote learning rigor is leading to frustration among students, teachers, and parents.

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Hot Topics in EdTech

Since last spring, demand has been increasing for more information from CoSN in three distinct areas:

Cybersecurity. Given the sudden increase in the number of devices distributed and in remote access to networks, EdTech leaders are concerned about the security of these devices and their networks. Cybercriminals are using unsecured Wi-Fi and personal devices for phishing and ransomware scams. The lack of security awareness by students and teachers contributes to the problem.

Although more than 36% of school districts allocate 10% of their technology budget to secure their networks, 53% of districts responding to CoSN’s COVID-19 survey indicated that they believed no additional funds would be made available in the coming budget for cybersecurity enhancements.

Student data privacy. With an increase in remote learning, students are spending more time online. The security of videoconferencing platforms and the data that are shared in education applications is unproven, especially when free apps are being used.

Digital equity. The pandemic has highlighted digital equity concerns; however, many districts have historically not provided off-campus/home broadband access to students and teachers who require it. Districts find it particularly challenging to fund home broadband Internet access given that E-Rate funding is focused on at-school broadband access.

Continuity of learning is essential when virtual and blended learning are the means of educating millions of students. As school reconvenes for 2020–2021, this divide will continue to present challenges.

Assessing Technology and Digital Practices

CoSN’s Digital Leap Success Matrix (www.cosn.org/focus-areas/digital-leap-success-matrix) outlines the best practices necessary for a successful digital school system. The matrix focuses primarily on 10 key areas to create next-generation learning environments that foster equitable, effective use of technology.

1. Leadership and vision. This component sets the tone for the entire transformation. On the inspirational side, the vision that is developed becomes the “true north” that guides all policies, procedures, and operationalized innovation.

   If this vision gets to the heart of improving outcomes for students, the transformation will be pointed in the right direction. If the vision is limited to bringing in technology solely for engagement or for connecting with the digital generation, the transformation will likely go astray.

   In addition to vision, other program necessities include distributed collaborative leadership, data-informed decision making, continual improvement processes, and equity practices.

2. Strategic planning. The principles of program management apply to the process of strategic planning, including setting goals and identifying success metrics, aligning resources, and planning for technology implementation. Ensuring that instructional goals precede technological goals is important.

3. Ethics and policies. Policies operationalize the vision. They will either help or hinder innovation and transformation and must be crafted with care. They include everything from legal compliance to responsible use policies, student data privacy policies, and so much more.

4. Instructional focus and professional development. Supported by standardized processes, infrastructure, and policies, this area is one in which ongoing innovation and improvement are core.

   On the “inspiration” side, instructional practice evolves by adapting (not adopting) successful practices from the field, engaging in thoughtful action research, and focusing on practices that support students taking ownership of their learning and environments that support the activation of intrinsic motivation.

   The “perspiration” side includes using data to inform teaching and personalize learning, as well as creating
a formal ongoing improvement process to support the development of innovative practices.

5. Team building and staffing. New processes require cross-functional organizational structures in which obsolete functions are no longer supported. A transformational environment also requires teachers and staff to model the behaviors and skills that they are asking students to learn.

Because one desired outcome is for students to take ownership of their learning, teachers must demonstrate taking ownership of their teaching (and administrators of their work, and so on). Achieving that outcome calls for an environment that supports intrinsic motivation, one that offers autonomy, mastery, and purpose as opposed to one with a top-down command-and-control structure.

Intrinsically motivated teams are at the heart of transformed schools—they are the teams who say, “I could never go back to the old way of teaching.”

6. Stakeholder focus. Transformation doesn’t happen in a vacuum; it is critical to nurture community partnerships and to seek and act on feedback from parents, students, teachers, and other stakeholders.

The inability to keep up with demand can cripple the transformation in teaching that can occur with the digital leap.

7. Infrastructure. Transformed teaching requires robust, scalable, reliable networks based on open industry standards. It is not unusual for transformed environments to see 60% year-over-year growth in bandwidth capacity demand and a network that can’t keep up with that escalation. The inability to keep up with demand can cripple the transformation in teaching that can occur with the digital leap.

8. Information management. The district must implement and maintain high-quality data systems for data integration, security, privacy protection, reporting, standardized assessments, and information technology management.

9. Communications management. Modern districts use web technologies and social networks to communicate both internally and externally; therefore, these communication vehicles need to be thoughtfully managed to set the correct tone and send a consistent message.

10. Business management. All business functions must be maintained as part of the block and tackle of managing a transformed district, from road mapping technology evolution to aligning resources, creating sustainable funding, and developing and measuring key performance indicators.

The Promise of Uncertainty

The one certainty for the future is that nothing is certain. School boards and technology committees must pay closer attention to technology infrastructure and remote learning capabilities as they move through this pandemic and beyond.

Now is the time to begin planning for a more robust and adaptive technology infrastructure with remote learning practices that will better serve the needs of all students. A good starting point is to review the practices of regional peers, as well as the best practices in the Digital Leap Success Matrix. For more information, visit www.cosn.org/peerreview.

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¹ Enrich.org/blog/2020-employee-financial-wellness-report-for-employers

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