

# CTO FORUM REPORT

June 2017

## Plugging into the Matrix: Where are you in the Digital Leap?



Notes from the June 2017 CTO Leadership Forum

**COSN**  
LEADING EDUCATION INNOVATION

# Moderators

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## Introduction

As school system technology leaders drive digital transition in their organizations, they must overcome both expected and unexpected challenges. During this CTO Forum, participants explored the many aspects of digital transformation and the practices needed for success. Participants discussed the fundamental requirements for school systems to create the next-generation learning environments that foster equitable, effective use of technology.

Using CoSN's Digital Leap Success Matrix (<http://www.cosn.org/focus-areas/digital-leap-success-matrix>) as their discussion framework, participants focused on the three professional categories identified in the Matrix:

1. Leadership & Vision
2. Educational Environment
3. Managing Technology & Business

Participants took the new, online self-assessment based on the Digital Leap Success Matrix to determine their districts' overall maturity regarding its transformation to digital. Then, for each of the professional categories (Leadership & Vision, Educational Environment, and Managing Technology & Business), participants were asked two basic questions "What are the biggest challenges in this area?" and "Where are you having success?" Through interactive roundtable discussions around these questions, listening and learning from peers, participants gained valuable insight and practical advice on how to advance in their digital transition journey.

# Leadership & Vision

The Digital Leap Success Matrix highlights three key aspects that schools must embody if they are to be successful.

- **Leadership and Vision.** The executive team works together to develop a shared vision with all stakeholders for effective and strategic technology use.
- **Strategic Planning.** School system leaders employ their high-level view of the school system to identify the steps needed to transform the digital vision into a long-range plan, complete with specific goals, governance, objectives, and action plans.
- **Ethics and Policies.** The school system leadership team models responsible decision-making and manages the creation, implementation, and enforcement of policies related to the social, legal, and ethical issues linked to technology use throughout the school system.

## What are the biggest challenges in this area?

The majority of answers to this question involved Leadership issues and centered around a few key points:

### Leadership and Vision.

- Many districts do not have a leadership hierarchy that gives the tech director an appropriate seat at the table for visioning and goal setting.
- Leadership lacks knowledge on where education is moving. There needs to be professional development for the executive teams.
- Changing district leadership and frequent turnover hurts the sustainability of initiatives. This includes changes on the Board of Education that can cause disruption or as one participant phrased it— “[we’re] only one election away from a nut .”
- Communication issues are common. From lack of communication with IT —“We often don’t know about purchases until after the fact” to poor or inconsistent communication with community stakeholders about the “why” of decisions. The need for better marketing and public relations was noted.

**Strategic Planning.** There are inherent difficulties in getting different stakeholders “on the same page.” Dealing with silos, aligning priorities, and lack of funding to execute the plan are challenges for any high-level strategic planning effort. Those common challenges were cited by the Forum participants—as well as the challenges that are unique to school system leaders:

- Technology is considered separately, not viewed with the rest of the strategic plan
- Lack of cohesiveness around the idea of integrating technology into district practice.
- Too many on the team are focused on the devices instead of the instruction
- Teachers not shifting to implement technology solutions that can support a more student-driven model

**Ethics and Policy.** Equity was a major concern for participants regarding ethics and policy, and a range of issues were identified:

- Regional technology gaps —rural schools/districts are more isolated, and may not have the infrastructure necessary to implement innovative solutions that can provide more equitable access
- Addressing a wide variety of sizes/demographics of schools within the same district
- Integration/coordination around charter schools
- Opt-out by students (parents) that impact instruction
- Difficulty of creating policies that have longevity

## Where are you having success?

What were challenge areas for some participants were highlighted as success areas for others. One participant was able to use an unsuccessful 1:1 roll-out as means to develop an educational technology plan. Other successes included:

### **Leadership and Vision.**

- Partnering with the Department of Ed. Leadership is a key component in creating a master plan for the state in terms of technology.
- New leadership bringing new ideas, fresh mindset, and community support
- CTO, CIO, CAO meet weekly to unify efforts
- Creating a shared language to accompany a shared vision
- Processes in place to encourage innovation and loop back to analyze—“Conversations are happening.”

### **Strategic Planning.**

- Starting from the pedagogy - strategic planning starts with the learning goals
- Aligning community ask, strategic planning and resource allocation
- Better alignment of vision, strategic plans developed at district level that feed into all schools / departments to ensure continuity

### **Ethics and Policy.**

- Policies around responsible use, privacy, and social media (driven by E-Rate) have evolved into useful tools that are streamlined
- Implementation of a review process for online resources and reporting out what is safe and not safe
- More due diligence

# Educational Environment

In evaluating a school's educational environment the Digital Leap Success Matrix highlights three aspects that schools must embody if they are to be successful:

- **Instructional Focus and Professional Development.** School system leaders budget, plan, and coordinate ongoing, purposeful professional development using technologies for all staff.
- **Team Building and Staffing.** School system leaders create and support cross-functional teams for decision-making, technology support, professional development, and other aspects of the school system's technology program.
- **Stakeholder Focus** The school system builds trusting relationships with all stakeholders.

## What are the biggest challenges in this area?

The answers to the question about educational environment challenges aligned with the three topics identified in the Matrix:

### **Instructional Focus and Professional Development.**

- Difficulty of implementing a sustainable model for job-embedded PD
- Training of instructional technology is separate from curriculum training
- Limited staffing for PD roles. Need to build capacity, especially for tech integration specialists.
- Teacher union policy limits the PD implementation to "voluntary." This puts additional "burden" on teachers
- Difficult to find the time for PD
- PD that is provided is not meaningful to teachers

### **Team Building and Staffing**

- Not spending enough time in front of our teachers. Need to better utilize time with teachers.
- Leaders don't have buy-in, so they struggle to achieve results
- Lack of collaboration across departments. Cross-functional teams (instruction, curriculum adoption, and technology integration) need to work as partners.
- Lack of shared decision-making on purchases. Schools buy their own tech and software that doesn't work in the network.
- Need to align the library with the overall instructional tech vision for the district.

## Stakeholder Focus

- Small portion of community pushes against the plans
- Community doesn't know the story behind the decisions that are made
- There's a lack of desire to present the process to the community— leaders would rather present a finished product
- Absences of clear communication about “controlled failure.” Failure is a learning process. Need to build trust before people are willing to take risks.
- Pressure on teachers gets shifted to students—“Don't make students victims of technology, make them change agents.”

## Where are you having success?

### Instructional Focus and Professional Development.

- Appropriately support new technologies with Tech coaches and thoughtful PD that meets all learners at their level
- Point of contact to help have “technology champion” or technology integration specialists to help with training/PD
- Providing a paid stipend for technology champions
- “Embedded”, “just-in-time” PD solutions resolve teacher time/resource capacity limitations
- Providing PD that is more meaningful
- Assigned instructional coaches (content & tech) for everyone - even the bus drivers.

### Team Building and Staffing

- Teams/forums created to implement new curriculum, ensure that that all stakeholders are at the table
- Technology works alongside curriculum staff to ensure meaningful integration of tech
- Training on a new textbook adoption is done with tech and curriculum departments working hand-in-hand.
- Tech director is in the cabinet
- Conduct surveys to measure systemic shifts
- Use data to make decisions
- Team meetings that bring the technicians and educators together—pair-up to work together and learn from each other
- LMS and Ed Tech are housed together & function collaboratively

### Stakeholder Focus

- Ownership is on leaders to use the technology and make mistakes
- Transparency through the collaborative use of Google Docs
- Cross-functional team building, modeling upper-level leadership
- Plan for onboarding new leadership and strategy for outreach bring new people and stakeholders on board as well.

- Defining the vision has built success
- Bridging departments through communication
- Diverse stakeholder teams have helped to achieve success over time
- PLCs guide PD needs/recommendations

## Managing Technology & Business

In managing technology and business in school systems, four areas of operational readiness are outlined in the Digital Leap Success Matrix:

- **Infrastructure** The school system maintains a robust infrastructure that aligns to industry standards and is adequate to meet the needs of stakeholders.
- **Information and Data Management** The school system manages the data programs that are needed for operations and instruction.
- **Communications Management** The school system manages the platforms and messages used to communicate transparently with internal and external stakeholders, effectively using both emerging and mature technologies as appropriate.
- **Business Management** The school system manages budget, financial operations, disaster recovery, and business continuity effectively.

## What are the biggest challenges in this area?

When reviewing the challenges below, it will become apparent that some issues affect multiple areas. Business management, for example, is entwined with the other three areas as every area has budget implications. In a digital environment addressing data privacy and security is a complex issue. The data privacy and security challenge involves all of the four areas. It requires a robust infrastructure that provides protection across all devices, information and data management to keep data secure across various enterprise systems, communications management to ensure both internal and external stakeholders understand and comply with data privacy policies, and proper business management to ensure appropriate budget allocations to support these efforts.

### Infrastructure

- Lack of systems compatibility and lack of integration among various vendors
- Getting systems to talk to each other
- Need for simplified single sign-on
- Need staff to be more knowledgeable in the area of network engineering
- Difficulty integrating data systems with security
- Data privacy laws don't keep up with the speed of innovation

## Information and Data Management

- Lack of interoperability for data systems
- Need standardization of process— “We shouldn’t have to recreate the wheel.”
- Issues with end user data
- Data privacy concerns—unaware of what identifiable information is out there
- Balancing the needs around security and privacy with those for innovation
- Keeping content filters current
- Time to make updates when 24/7 access is expected

## Communications Management

- Lack of understanding about data privacy and responsible practices across roles within the district
- Articulating our needs in language that non-technical stakeholders can understand
- Tech department is a silo—the “black magic box to the other departments”
- Don’t have a voice at the table.
- With free and reduced lunch population, families do not have access, resources, or English language skills. Language barrier makes creating connections across a diverse community difficult
- People who are not invested in the process interject themselves into the conversation.
- Educating staff on phishing attacks and ransomware
- Communication infrastructure can’t keep up with current communication trends

## Business Management

- Funding is not aligned toward the vision
- Lack of funding and resources
- Senior leadership that doesn’t understand appropriate resource acquisition —“No, we can’t buy a generator from Walmart.”
- Security devices take money from the educational side of investments
- Forecasting is difficult. Adapting to changing conditions is difficult due to the method of procurement.
- Higher costs for technology is a burden to procurement
- Ongoing maintenance and upkeep are not accounted for in budgets
- Need for healthy working relationships with purchasing departments
- Insufficient funding for infrastructure
- Funding often limited to certain categories. For example, high investment in infrastructure but no funds to support it (PD, digital content, etc.)
- Ability to get insurance for phishing and ransomware attacks

# Where are you having success?

Despite the multiple challenges, participants were able to share many success stories:

## Infrastructure

- The need to integrate across systems securely is now a high priority.
- When making investments in content and platforms, vendors are pressured to integrate better.
- Creating a robust infrastructure before 1:1 implementation —standards and a refresh cycle for management of the infrastructure
- Recognition of the demands of 1:1 on infrastructure (Chomebooks to greater band width)
  - o Firewall
  - o Content filter
  - o Expect bumps in the road as demand increases
- Establishing a long term device and network refresh plan
- Continuous infrastructure rollout
- Moving to cloud storage for security of data
- Moving repair services to the schools helped build trust

## Information and Data Management

- Teachers, parents, and all stakeholders have access to data
- Our service providers provide 24/7 access (but not enough staffing to catch-up is still a negative)

## Communications Management

- A focus on community-based strategic planning. Bringing the voice of the community into the conversation about our vision and goals.
- Communication with communities around technology brings community support of school technology initiatives
- Communication plan that includes:
  - o Parent Portals
  - o Messaging systems (including emergency communications)
  - o Social Media
  - o Cultural Liaisons
  - o Translation available at school board meetings
- Technology has a voice at the table when making decisions.
- End-of-year meetings with every principal to build out priorities, and to understand and address needs.
- Attend principals' PD and PLC meetings
- Growing investment in marketing and PR has resulted in huge improvement with schools
- Good relationship with communications helps PR efforts

## Business Management

- Leveraging E-Rate
- Operational budgets are no longer questioned - stakeholders know IT is “mission critical.”

## In Conclusion

The discussions around the various matrix challenges and successes created many “aha” and “amen” moments for participants. They were able to learn about new solutions as well as have their own practices verified. While there are no best practice plug-and-play templates for school system success, learning how other districts have approached problems helps IT leaders develop solutions for their own unique environments. The CTO Forum provides an invaluable networking opportunity. Individuals who may be isolated can participate in the Forum to connect, collaborate, and learn from each other. As stated during the Forum, “We learn best when in community with others.”

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