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SMART SERIES GUIDE TO EDTECH PROCUREMENT

Foundation for Excellence in Education

Digital Learning Now
an initiative of ExcelinEd

GETTING SMART

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TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

INTRODUCTION 3
- The Shift to Personalized Learning 4
- Why Smart Procurement Matters 6
- Blended Learning Implications 7

12 KEYS TO SMART EDTECH PROCUREMENT 8
- Take Inventory 10
- Determine the Educational Priorities 11
- Exercise Caution on Customization 12
- Pursue Collaborative Investigation & Purchases 12
- Demand Guarantees & Assurances 13
- Make Real Comparisons 13
- Conduct A Pilot 14
- Prioritize Data Sharing & Interoperability 15
- Remember that Service Matters 16
- Consider Total Cost of Ownership 17
- Close the Deal 17
- Implement, Implement, Implement 18

HARDWARE CONSIDERATIONS 20
- Common Hardware Considerations 21
- Primary Hardware Cost Considerations 22
- Secondary Hardware Cost Considerations 23

STRATEGIC PURCHASING 25
- Vendor Strategy 27
- Working in Networks 28
- Buying in Bundles 28

PROCUREMENT POLICY 30
- Importance of State Procurement Policies 31
- Modernizing Procurement Policy 31

CONCLUSION 36

APPENDIX: SMART PROCUREMENT RESOURCES 38
AUTHORS' BIOS 38
ACKNOWLEDGEMENTS 39
DISCLOSURES 40
ENDNOTES 40

EXECUTIVE SUMMARY

In an effort to inform EdTech procurement decisions in schools and districts across the country whose leaders realize the potential of technology to personalize learning and improve high-quality educational opportunities, Digital Learning Now brought together experts from Getting Smart, Curriculum Associates, and The Learning Accelerator to create the Smart Series Guide to EdTech Procurement.

The procurement process outlined is informed by the lessons gleaned from the collective experiences of the authors in working with hundreds of school districts and across education policy matters in dozens of states. The authors have learned a great deal about the challenges that districts face when attempting to discern how best to integrate technology into their schools in a way that creates better environments for teachers to teach and students to learn.

They have heard consistent challenges articulated by educators around the country who are facing inter-related shifts in standards and assessments. In the race to meet these challenges, providers often market themselves in strikingly similar ways, even when their product and service offerings are very different. Frequently, the result is confusion and frustration from educational leaders who do not know where to begin.

The goal of this paper is to create a framework for EdTech purchasing by offering practical advice to guide key decisions, sharing lessons learned from districts that have already made the digital shift, discussing the implications for blended learning, and providing examples of best practices in education policy that support smart procurement.

After setting the stage for smart procurement in the context of the national shift to personalized learning, the authors describe 12 keys to smart EdTech procurement:

01 Take Inventory.

02 Determine the Educational Priorities.

03 Exercise Caution on Customization.

04 Pursue Collaborative Investigation and Purchases.

05 Demand Guarantees & Assurances.

06 Make Real Comparisons.

07 Conduct A Pilot.

08 Prioritize Data Sharing & Interoperability.

09 Remember that Service Matters.

10 Consider Total Cost of Ownership.

11 Close the Deal.

12 Implement, Implement, Implement.

The next section outlines hardware considerations that impact cost and benefit and describes common themes in the discussion of software purchasing, such as aligning purchases to educational goals, managing implementation and evaluating performance.

The section on strategic purchasing discusses vendor strategies, working in networks and buying in bundles. In each of these three areas, the authors offer useful strategies that will allow schools and districts to leverage existing resources and get the most of out purchasing decisions.

Finally, the paper offers a full section on the role of procurement policy. The policy section begins with an acknowledgement of the three greatest challenges with the current system:

01 The Buyers Are Not the Users.

02 The Process is Lengthy and Cumbersome.

03 Policies and Regulations Hinder Discussion.

The authors recommend six ways to modernize procurement policy. These recommendations include:

01 Develop Waivers.

02 Create Space for Exploring User Needs and Supplier Capabilities.

03 Modernize Conflict of Interest and IP Policies.

04 Make More Use of Prizes.

05 Consider Piggyback Clauses.

06 Explore Cooperative Purchasing.

The paper concludes with an acknowledgement of the challenges that schools and districts face in the era of new college- and career-ready standards and assessments and speaks to the potential of technology to help leaders see these challenges as opportunities. Leaders who start with clear learning goals and move through a procurement process that keeps students at the center can ensure that technology purchases will create opportunities for students to thrive.

INTRODUCTION

THE SHIFT TO PERSONALIZED LEARNING

With the adoption of common college- and career-ready standards and the implementation of next generation online assessments, there is an unprecedented national opportunity to reorient the educational experience around individual student needs. The growing availability of affordable devices and high-quality digital content means student-centric personalized learning is finally achievable at scale.

As schools and districts evolve to create instructional environments that sync up with the demands of the new standards and assessments, most schools in the U.S. will shift to significantly digital instructional materials with Internet access devices for every student. As described in the Blended Learning Implementation Guide, the shift opens up a world of possibility, but the new environment requires a complex sequence of decisions about goals, school models, platforms, devices and staffing. These decisions warrant consideration at the district or network level.

Technology, and the use of technology in schools, has changed so quickly in the last several years that many education leaders today do not have first-hand experiences to draw from as they work with their teachers to integrate technology into the classroom. This makes it more difficult not only for them to determine the best tools, systems, and programs to buy, but also harder to support teachers in the implementation process.

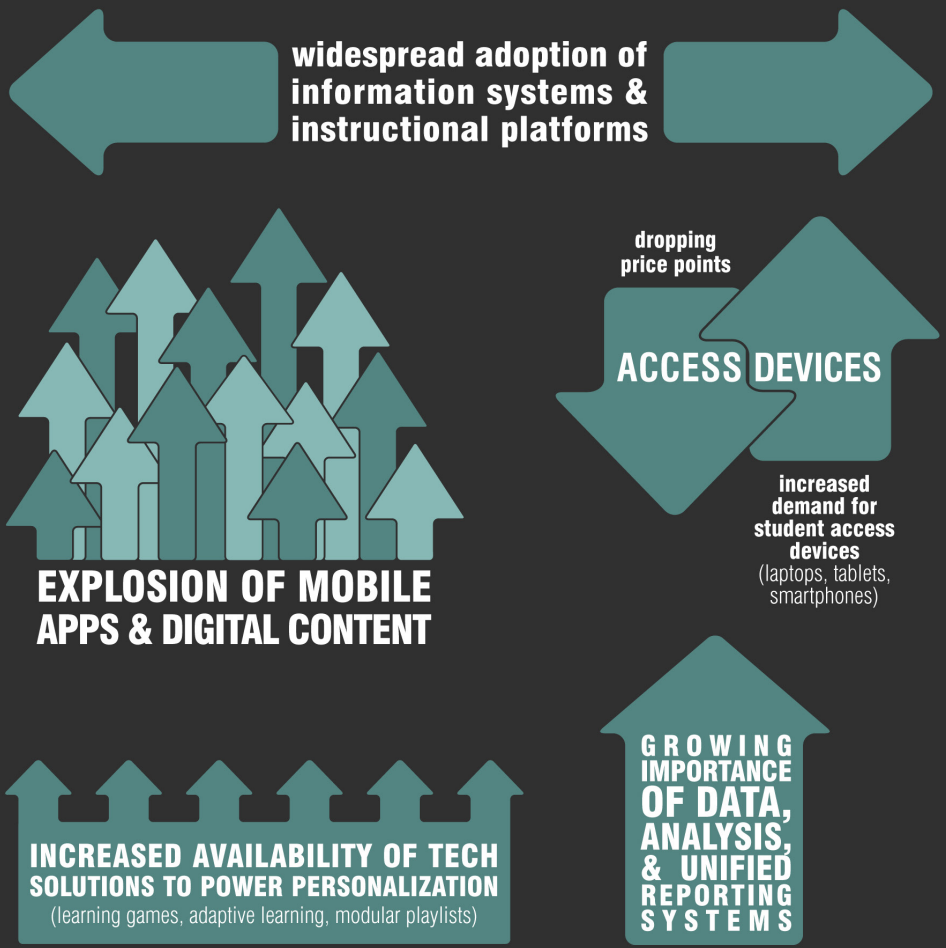
These recent changes have shifted the focus to the individual student: from Response to Intervention (RtI) and No Child Left Behind (NCLB) to instructional strategies, such as flipped classrooms, that extend the day and create flexible and personalized options for students. Technology has played an instrumental role in making these advancements possible and has become increasingly common in schools throughout the country—allowing educators to move toward student-centered learning on a much greater scale.

These change forces have enabled a new generation of blended learning school environments that depend on integrated technology systems to:

- Deliver personalized learning that gives students control over time, place, path and/or pace;
- Enable competency-based learning environments, where students advance upon mastery rather than seat-time;
- Create more autonomous learning for students so that teachers can provide one-on-one and small group instruction to students who need it most;
- Support longer day/year learning opportunities and take-home technology;
- Extend the reach of, and create new leadership roles for, the best teachers; and
- Provide continuous feedback on a broad range of college-and career-ready metrics.

Examples of these benefits are evident in the profiles of Next Generation Learning Challenges grantees, which illustrate the critical role that integrated technology systems play in the schools' designs and the roles that students and teachers play in these new learning environments.

FIVE FACTORS IN THE SHIFT TO PERSONALIZED, DIGITAL LEARNING



WHY SMART PROCUREMENT MATTERS

The confluence of factors in the shift to personalized, digital learning—higher standards, new assessments, affordable devices, an explosion of content—create a number of issues that must be addressed to maintain the positive momentum of this wave of educational innovation and realize the full potential of blended and online learning. These issues often arise from the earliest phases of procurement decisions, such as leading with device purchases, rather than starting with student academic goals and finding the right device and content to achieve them. In the rush to implement, procurement decisions are often under-informed—leading to inefficiencies and unintended consequences such as lack of operability across the system.

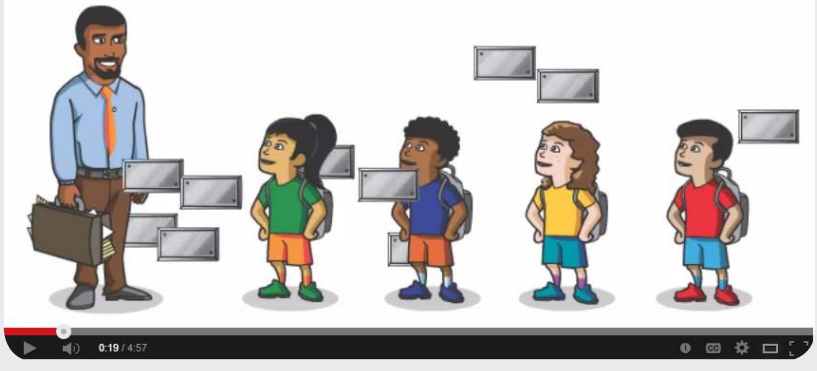
The implementation of Common Core State Standards (CCSS) has increased the importance of finding solutions that are tailored to the specific needs of districts, schools, teachers and students. While the new standards establish common academic expectations for students, school leaders and teachers must still decide which curriculum, interventions, lessons and resources are the most appropriate for their students. Schools must also identify the products and services needed to support their transition to these new standards and the accompanying assessments.

The goal of this paper is to create a framework for EdTech purchasing by offering practical advice to guide key decisions, sharing lessons learned from districts that have already made the digital shift, discussing the implications for blended learning and providing examples of best practices in education policy that support smart procurement.

Helping Great Teachers Teach

In this video created by Curriculum Associates (curriculumassociates.com/transform), Rob Waldron provides thoughtful comparisons between education and other fields that speak to the transformative potential of technology. "A century ago in the construction industry, new mechanical innovations gave us skyscrapers, mile long bridges and interstate highways. In medicine, technological advancements have enabled inventions like the MRI and micro-video surgical techniques, measurably and dramatically increasing life expectancies. In both cases, new tools vastly expanded the potential of the humans doing the work. Construction workers and architects still do the building. Doctors and nurses still do the healing. But new technologies now let them accomplish what was once unimaginable. The same will hold true in education. Technology is finally catching up with the needs of teachers and students. We now have adaptive technologies that allow us to change every question on an assessment and every instructional lesson based on a student's individual diagnostic profile. That means that rather than just waiting for the end of the year to see how a child did on a single day on a single state test, we can get real-time feedback on not just whether a child is behind, but why she is behind. We can then immediately deliver the instruction that she needs to catch up. What this means is that kids who start out behind no longer have to stay behind, because better, more accessible data is allowing teachers to spend their limited time targeting instruction to the individual needs of each student. The potential gains are immense because teachers are receiving valuable data about student progress all year, every day, not just once a year on a single test. Every day, every lesson can be individualized for each learner. School administrators and even parents are now managing their children's learning in environments that are vastly different from the ones they experienced themselves. But with all this improved data, the next generation of children is certain to reach new heights – just like those skyscrapers did. And, one thing will never change; great builders will build, great doctors will heal, and great teachers will teach."

The Transformational Power of Education Technology
http://curriculumassociates.com/transform



BLENDED LEARNING IMPLICATIONS

Blended learning requires planning and coordination. As outlined in the Blended Learning Implementation Guide (BLIG), implementation includes six important decisions:

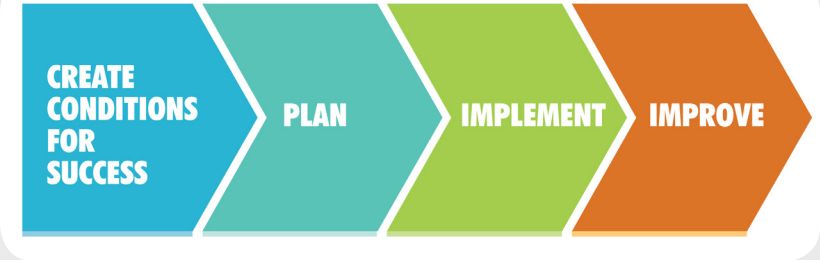
- Goals and Strategy
- School Model
- Platform and Content
- Devices
- Staffing and Development
- A Plan for Measuring Impact

These decisions impact the procurement of intergraded technology systems and are driven by goals that describe desired outcomes and strategies that describe learning environments.

The BLIG outlines a planning process that starts with building support for a phased plan. It warns against layering technology on top of current school models and instead encourages leaders to think about redesigning their classrooms and instructional experiences.

Blended Learning Implementation Flowchart

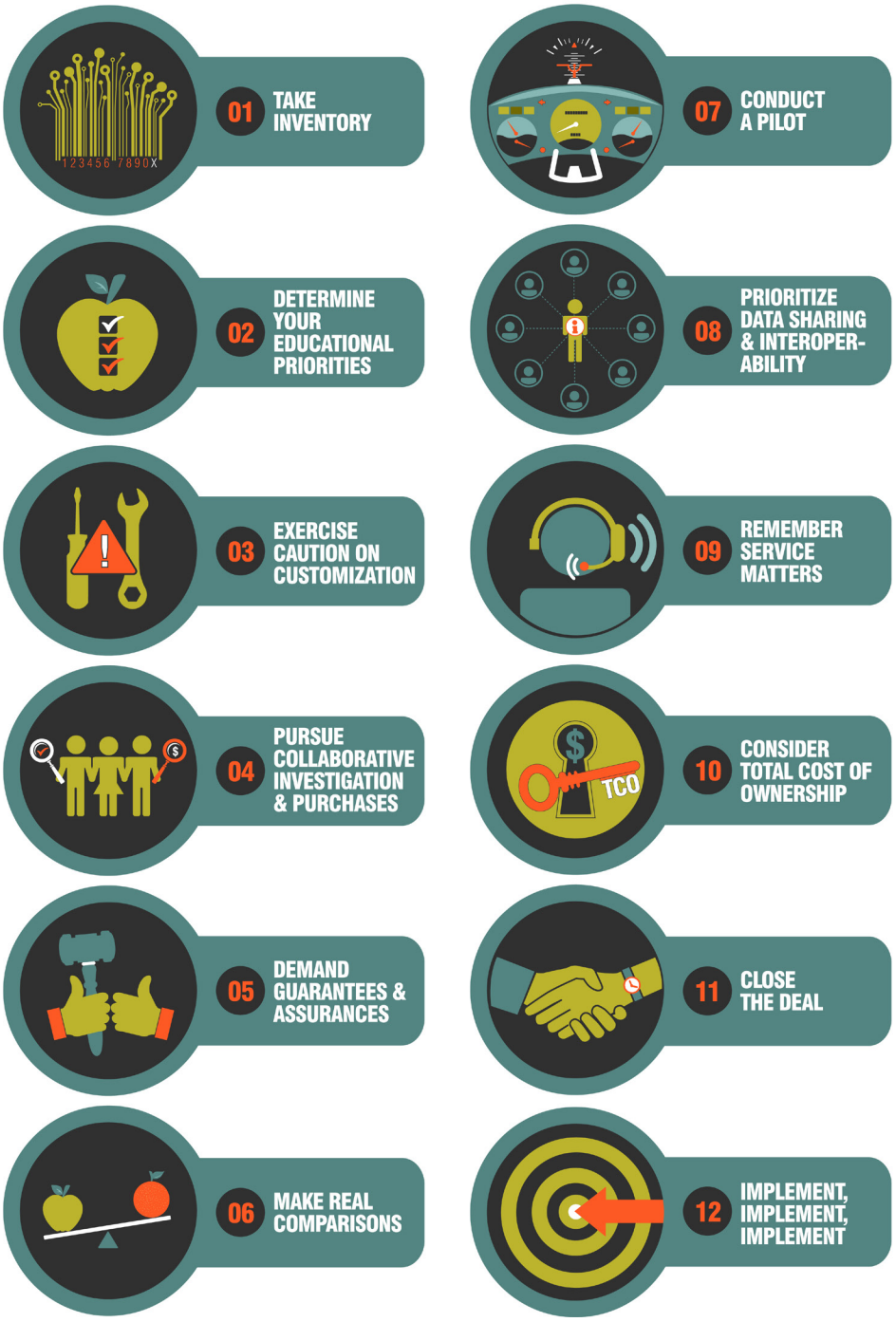
The Blended Learning Implementation Guide and "How To Implement Blended Learning" infographic were created by Digital Learning Now, Getting Smart, and The Learning Accelerator to equip educational leaders who are ready to begin the shift to blended and online learning. The Guide describes a process that begins with pre-launch steps like defining academic goals, building support and determining funding sources then moves through six key planning decisions, the keys to implementation success and measuring success.



12 KEYS TO SMART EDTECH PROCUREMENT

In the past, when there were just a few technology options from which to choose, the power remained in the hands of providers. The good news for educators is that now, with many more options, districts have more purchasing power and are in a position to tell vendors what they need. This shifts the dynamic and creates greater potential for vendors and districts to come together to determine solutions that are integrated and that are in the best interests of students, schools, districts and providers.

The following guidance will help simplify the purchasing process for districts and help those involved with resource selection and implementation to avoid many of the pitfalls experienced by those who have come before them.



TAKE INVENTORY

Before getting any new products or services, districts must know what they already have to help them figure out what they need. Districts should conduct an audit, including hardware, software, online services, apps and any practices already in place associated with those products. After the audit, districts should calculate the ongoing costs of current software and figure out what they can eliminate. These audits often identify not only unused licenses, but also instances where multiple teachers have individually purchased a solution and better pricing could be secured through a school or district purchase. Even though districts may not be able to address every issue right away, working through a process like this one can bring a great deal of clarity to decisions related to priorities and resource allocation.

For example, in one mid-sized district, an audit revealed a disconnect where a superintendent thought that three products were primarily used by teachers, but one principal indicated that they had refused to use those specific products and instead preferred three alternatives. The teachers in that principal's school indicated that none of the products identified by the superintendent or principal met their need and instead were using entirely different products. An audit showed that the district had purchased more than 70 pieces of software, only one-third of which were being used. The same sales representative had sold them ten of the products, representing four different companies in seven years. No one is well served in a scenario like this one, especially students and teachers.

In another example, Curriculum Associates interviewed a district that had purchased 26 online reading intervention programs for 19 high schools. While each purchase could be individually defended, no one was looking at the bigger picture with a focus on how the purchases would all work together.

These scenarios highlight the need to regularly survey school and district staff, including curriculum coordinators, the CIO, principals and teachers, to better understand needs and the experiences with different products or services. Free survey tools such as Zoomerang and SurveyMonkey allow users to put together their own simple survey and collect a summary of the results automatically in one report. Questions can be as simple as:

- Do students and staff have access to reliable and fast Internet connectivity?
- Is there adequate access to devices for teachers? Enough access for students?
- Is there adequate technical support to assist teachers when a service is not working?
- What are the top three services or technology tools used by the teacher/staff/student?
- What are the biggest frustrations with using the existing systems and tools?

Users can look at the commonalities and differences in respondents' answers in order to understand what is happening now to figure out what the needs are in the future.

Taking Stock: Key Questions for Assessing Current Technology

- For whom was the technology originally intended (e.g. which students, teachers, or administrators)? Who is currently using the technology?
- How often is the technology being used?
- For what purpose is the technology being used? Is it as originally intended?
- Is the technology supported with the appropriate level of resources (human and financial)?
- How has the technology improved student outcomes that are measurable?
- Do students, teachers, and administrators enjoy using the technology?

Leveraging In-House Expertise

One way to promote better decision-making is by enlisting the help of other district employees. Chances are, among the entire staff, there are those with a passion for IT who could be willing to help, be it in making purchasing recommendations, comparing software/hardware or testing technology initiatives on a small scale. A common fear of adding others into the decision-making process is having "too many cooks in the kitchen," and the best way to mitigate this risk is by structuring the decision-making process carefully. For example, providing structured methods of feedback in the early stages of a technology purchase would still allow for simplicity when it comes time for a final decision to be made. Additionally, providing a voice to those most affected by change early on will not only help in the selection, but will also make for an easier transition.

DETERMINE THE EDUCATIONAL PRIORITIES

As described in the BLIG, making the digital shift should begin with creating the conditions necessary for success, and that begins with a determination of academic goals and educational priorities. All other decisions—devices, content, model—should relate to these learning goals. Learning goals should guide device and content purchases, not the other way around.

In order to articulate the educational priorities that are creating the need for a purchase, districts can create a group of three to 10 people from across the district and share the findings from the audit with this team. Even small districts benefit from such a group, since more minds and perspectives typically yield better results than one. The focus for this district-wide team may be summed up in one simple question that Clayton Christensen, Harvard Business School professor and author of Disrupting Class, asks: "What is the product being hired to do?"[1] This question can guide much of the conversation and serve as a focal point in the buying process.

Districts are best served when they make the answer simple, such as, "save RtI teachers time and improve reading gains for the lowest 10 percent of students." The team can debate this question as necessary. If they are unable to come up with a specific, unanimous answer, there are likely to be problems with implementation and consistent use of the chosen product(s) down the road. If a district is unsure of how their answer translates to product features, they might consider issuing a request for information (RFI) instead of a request for proposal (RFP). This will enable them to assess products in the marketplace (which is changing at an increasingly rapid rate) before writing a more official RFP. When and if they eventually do create an RFP, it can be narrower in scope based on what they learned from the RFI. This will allow them to limit the responses to a maximum of 10 pages (or fewer) so they are not overburdened with too much information to decipher.

Key Questions for Conducting a Needs Assessment

Based on the educational priorities, is the need:

- Help with RtI?
- Guidance in the transition to the CCSS?
- Support with a blended learning initiative?
- Better communication with parents about student performance?
- A tool to facilitate collaboration among teachers?
- A way to determine a student's mastery of specific grade-level standards or their subdomain-level strengths and areas of need across grade levels?
- Help streamlining the amount of time teachers and administrators spend on interpreting student data?
- A way to provide effective professional development on specific topics?

EXERCISE CAUTION ON CUSTOMIZATION

In short, customization is often costly for minimum benefit. Educators often tell providers that their district is different or that the students in their classrooms are in a unique situation. Educators also often believe that large budgets for custom products are necessary. While it is true that every student, teacher, school, and district needs tools and systems to meet their unique needs, the overarching objectives schools and districts have and the challenges schools face are fairly consistent around the country, making customizations generally unnecessary and expensive. Requests to customize products that have complex technical requirements typically come with increased costs, increased implementation risks with untested code and delivery delays.

Despite the fact that most customization is unnecessary, RFPs often ask for customization such as the ability for a school or district to add their own assessment items to a valid and reliable instrument. This is simply not possible to do without compromising the validity of the instrument. The moment someone can add an item on their own is the moment the underlying validity of the instrument ends. The fewer things districts try to customize, the less it will cost and the sounder the product will be.

PURSUE COLLABORATIVE INVESTIGATION & PURCHASES

There are numerous purchasing consortiums and cooperatives operated by school districts, state governments, and education service agencies. They are commonly set up solely to facilitate members' ability to purchase a product at a negotiated price that is lower than a company's list price, because there is an assumption that more will be sold than if the vendor were to just sell to one individual district or school individually. This can help save funds as well as time since many of these purchasing consortiums have already completed lengthy RFPs. Do your homework on how the consortium or co-op works though, because sometimes the specific conditions and requirements preclude vendors that may have good solutions from participating.

Even if purchasing through a co-op may be appealing, we recommend that a district still consider issuing an RFI or RFP, because even though the RFI/RFP process can be time-consuming, ideally the proposals returned will be tailored to each district. District leaders should then come back to their educational goals and evaluate the proposals based on whether or not the product will help accomplish them. If they find a vendor that meets

Software-As-A-Service (SaaS)

Software that is web-based, hosted in the cloud and delivered via the Internet uses what is called a Software as a Service or SaaS model. It differs in many ways from on premise-based software that resides on a school or district-based server. Many education technology companies have shifted to using a SaaS model, because it allows them to react to customer demands quickly. They are able to maintain one code base that, when changed, delivers updates to all customers at the same time. This benefits teachers and students, because they are guaranteed to always have the most current version of the software delivered automatically whenever updates are made.

The onus of maintenance in a SaaS model is on the vendor, reducing the demands on a school's technology support team. An administrator is no longer required to download software updates or patches to each device or terminal. A disaster recovery plan, including a duplicate database in case the first one crashes or goes down need not be maintained, because it is the vendor who is responsible for the reliability of the software. Schools often find that the resulting total cost of ownership (see page 18) is lower in a SaaS model.

A Washington Post feature on collaborative purchasing highlights six of the nation's largest districts that changed vendor behavior by pooling their purchasing power. This example, driven by a collective desire to replace styrofoam lunch trays with something more environmentally sustainable, shows the power of this type of collaboration.

their needs, they can check the co-op's vendor list, because they may be able to save some money. Finally, if a district thinks a co-op is a good solution for their district, they should be sure to understand how their money will be spent.

In addition to collaborative purchasing, collaborative investigation holds the potential to improve efficiency and impact procurement success. Districts can establish face-to-face or online working groups in order to leverage and add to the group's collective intelligence on purchasing.

Our research indicates that cooperative purchasing may not yield a significant cost savings for hardware as it does for software, since prices may be lower than retail but only for a single device. Districts may be better off negotiating on their own if they are purchasing multiple devices because volume discounts may be better than consortium pricing. Purchasing with a consortium has other advantages however such as saving time.

DEMAND GUARANTEES & ASSURANCES

When negotiating an individual contract (versus purchasing through a co-op), districts should ask for a money-back guarantee and pricing assurance when appropriate. Districts have the purchasing power; vendors need the business and will generally acquiesce to this request. Districts should ask vendors to send the last ten contract prices, per student served, for districts of a similar size (at some companies, prices for the same software can vary by as much as 40 percent). Districts should also ask the CFO of the company to certify the authenticity of the information. This will prevent being overcharged and will show if a neighboring district was able to negotiate a better deal.

MAKE REAL COMPARISONS

Districts should force vendors to make apples-to-apples comparisons. When narrowing the vendor pool to three to five providers, districts should demand that presentations be based on a common standard of the district's choosing (e.g., addressing a specific academic standard or serving a particular group of students) and/or specific data questions. This will allow a comparison of approaches to the very same learning outcomes or data needs to find the approach that is the best fit for the district. Also, when asking about results in other schools, districts should make sure vendors are providing data from similar districts in terms of both size and student population served. Examples of specific questions for vendors include:

Smart Procurement in Houston

The Learning Accelerator's Snapshot of EdTech Procurement in Houston Independent School District describes how HISD followed many of the recommendations in the recommendations outlined in this guide. The snapshot outlines nice recommendations for districts, based on the lessons from HISD:

1. Develop and share the vision across your district to get buy-in.
2. Learn from the experience of districts with successful deployments.
3. Know exactly what you need and communicate it clearly to vendors.
4. Plan for a lengthy and iterative process in order to get the best product at the best price.
5. Ensure effective communication between all departments involved.
6. Determine a single point of contact within the district to work with all of the vendors for a large purchase.
7. Be consistent during the technology roll-out.
8. Capture best practices, iterate, and improve.
9. Change take times. Not every student and teacher will be at the same level of readiness and some will take longer than others to get on board.

- What are the results from your program in other schools and districts?
- What is your renewal rate as a percentage of sales for established companies with this information?

CONDUCT A PILOT

Once a district is interested in a product that it has determined may be a good fit, it may be worth considering a pilot of the product. A pilot should be a partnership between the vendor and the district. While districts often view pilots as a way for vendors to prove themselves, districts should not operate as if it is simply a "test" for the vendor to pass. The approach to pilots ranges from a rapid prototyping model (prioritizing experimentation and iteration cycles to adjust quickly) to a more detailed traditional pilot process (prioritizing initial planning and a full project plan development). Regardless of which path a district chooses, a pilot should be a two-way street and should have superintendent support and additional champions in the district. In order to be successful and actually benefit students and teachers, a pilot must have real and clear goals and an agreed-upon set of parameters. Everyone involved needs to know the pilot is important and real. This section describes a more traditional plan for planning, launching and evaluating a pilot.

Those who make purchasing decisions must ensure that the vendor dedicates time and resources to make the pilot successful, assisting with participant identification, support and planning for professional development and training, as well as providing all related logistics. A vendor should ask questions, make sure that the users understand key product content, and hold regularly scheduled meetings to discuss challenges encountered along the way. A key element of this discussion is developing a clear set of expectations for what needs to be in place in order for a good implementation to occur. For example, does a product need to be used a certain amount of time each week or in a certain way in order for it to deliver the intended results? Finally, the vendor should also confirm a commitment—yours and theirs—to professional development. Pilots that fail benefit neither the vendor nor the district; a vendor should understand that and commit to achieving success.

The biggest risk with a pilot is lack of fidelity of implementation. It is critical, therefore, to have a dedicated vendor and key champions in each district that are invested in planning and implementing the pilot. Participants should not be forced to participate in a pilot, because such scenarios typically will not go well and will not produce the data or information needed to make an informed purchasing decision. Champions should be enthusiastic about the pilot and committed to implementing it almost as if they were implementing a fully purchased product.

When deciding whether to do a pilot with a particular vendor, districts should not simply choose the path of least resistance or a vendor that always says "yes" to everything requested. While it may seem counter-intuitive, if a vendor is overly accommodating, it may be a red flag that they are overpromising.

Here is what can (and did) happen when a large district applied an old framework to the purchase of new technology:

A large school district put out an RFP with many requirements. They bought the "safe bet" test prep software that had no impact for students who needed it most. They then piloted an adaptive diagnostic, but it did not link to instructional resources. The manual alignment took much-needed resources and time, so they wound up "cramming" for the test and lost the benefits of "differentiated" instruction, because they were implementing it incorrectly. They could not draw conclusions about the effectiveness of the software itself, so they reissued the original RFP and started the cycle all over again.

A pilot also needs to be sufficiently long to have legitimate results that inform decision-making. In most cases, piloting a product for three weeks will not yield much insight. Districts should allow approximately 12 weeks to capture meaningful data. Ensuring that the pilot operates within a realistic time frame to produce meaningful data will show if the product is helping students or not.

Districts should not just plan the pilot—they should plan the end of the pilot. What will the wrap up look like? When and how will the data be reviewed and teachers interviewed? What criteria will determine if the product is scaled or not? Districts should not just let it end; they should know the desired results and the next steps after the pilot is over. A pilot should not just be about making a purchasing decision; it should yield real data that helps decision-makers understand their students better. Overall, pilots should be a reflection of what a full implementation would look like for the district. They should be planned with detail and precision.

Finally, districts should be willing to invest a little bit of money in the pilot. Free does not necessarily equal better. For example, a vendor experienced with pilots may give licensing for free and ask for districts to contribute to professional development since those costs, such as trainer salaries and travel expenses, are real and not easy to streamline. Vendors who do pilots well are not in it to make money off the pilot. They want districts to see their product and get to know it well, because that is the only way to determine its usefulness and potential for long-term success. They want districts to have a positive experience and buy. If both invest a bit, the rewards can be greater.

PRIORITIZE DATA SHARING & INTEROPERABILITY

The data from any purchased technology must be easily shareable. The technology purchased must be capable of seamless integration across multiple programs. As more student and school data move online for academic and administrative purposes, districts need to find companies that integrate and partner with other service providers so that they are not creating extra work for school or district staff.

The only way that bringing technology into the classroom will not create more work for teachers and administration over the long term is to make sure to purchase technology that can be seamlessly integrated across multiple areas of need.

Gone are the days of being able to easily choose one product and vendor for online assessments and another product and vendor for test prep and yet another product and vendor for benchmark materials. Buying a la carte from companies who are not integrating with other programs and partnering to make integration easier in a world of rapidly advancing technologies will not work—for educators or for students. The key to easier integration is to leverage industry standards, single sign-on and data interoperability.

REMEMBER THAT SERVICE MATTERS

In some cases, service from the provider can make or break the experience of teachers and the learning outcomes of students. Service starts with the sales process but continues through implementation, ongoing support and the life of the product. Those purchasing and those who will be using the products should discuss service at length during the sales process, including account management, data migration, roster sign-on, and the product road map or plan for future enhancements. School and district leaders should:

- Know how different tiers of support are handled;
- Know the renewal rate of well-established company contracts; and
- Meet their account manager.

Proactive service is as important as reactive service. For example, if there is a new district initiative, a good account manager will reach out to that district and serve as a partner in determining how the product can be a part of the solution. Providers should be "looking out for" their customers, and if a new feature has been added to their program, they should know how it applies and what it implies for every one of their customers. A good service provider also monitors a district's data to look for "stories" in the data that may be helpful in providing specific insights into the school or district's student performance.

Reactive service is about speed, accuracy, and personalization. Can a district easily call their account manager and ask him a quick question before the next class starts or does the customer need to submit a "ticket" online or to someone who is not familiar with their specific situation and wait 72 hours for an automated response? The service relationships should be as personal as the learning provided to the students. Again, a strong partnership is key and communication between the district and the provider will make good service even better. It is important to cultivate ongoing relationships. Remember, the product purchased today, no matter how good it is, will be wrong or incomplete soon because of ever-changing curriculum requirements and technological advancements. It is important to focus as much on who you want to go on this journey with—and how well they can adapt—as you do on the current product features. The last thing schools want to do is implement a new major software product and stop using it the next year because they cannot get service that meets evolving needs.

CONSIDER TOTAL COST OF OWNERSHIP

Just as when making any major investment in one's personal life—like buying a car, or a house—technology purchasers need to look at the total cost of ownership of the product. Where are the hidden fees? School leaders must make sure to fully understand the ongoing costs for licensing, installation, training, IT support and troubleshooting before finishing the deal. They must ask about the costs of all professional development and have an agreed-upon price in place in the event that the decision is made to opt for additional professional development service after getting started. It would be wise to leave some budget flexibility around professional development and technical support, since these areas can require more than original estimates. Also, leaders should continue to make an apples-to-apples comparison. If one vendor's licensing fees look too good to be true compared to those of others, it is probably because they are. That vendor may charge extra for things like set up, maintenance and support, when other vendors include that. Leaders should understand the pricing set up and what it means, down to the last detail.

Districts should take a hard look at multi-year commitments. While it may feel scarier to make such a commitment, if a district has done its homework, it can be a better deal and increase chances of successful implementation. When staff sees that a district has committed to a program or product for more than a year, it can create a perception of seriousness and drive better implementation. Even if they don't initially sign on for a multi-year commitment, districts need to understand what the multi-year costs are and should be able to communicate to constituents within the district that they have a multi-year education technology plan in place.

CLOSE THE DEAL

It is important when negotiating with a vendor that the school or district think about "expanding the pie," where all parties benefit versus having a "you lose, I win" mentality. Leaders should not ask for things that are not realistic and get into an adversarial situation, rather than working together with the vendor to figure out how to make the outcome of negotiations most cost-effective for the district while also meeting any "must have" needs.

Transparent Pricing

Understanding the true cost of a purchase should not take a PhD in economics. When additional features or additional items are being purchased, the price of each of those should be clearly marked. There is no magic in pricing models, vendors know how much it cost to provide a product or service, so they should be able to provide it in a manner that is easy to understand. This will allow buyers to better understand the true cost of add-ons and compare them to potential cheaper substitutes.

White it is absolutely appropriate for leaders to ask for discounts and breaks, they should get a sense of where a vendor's real costs are. If a vendor has to fly someone in to do an all-day training, that is a real cost incurred by the vendor with airfare, etc., which is difficult to reduce. However, having a conversation with the vendor about the implementation allows a discussion about ways to economize. For example, a vendor could come to a district and train everyone at once over a few days, which is more affordable than coming back multiple times over a few months. Leaders should talk about price in real numbers—not in the abstract. Vendors will often have ideas about how to get the best price and will work with schools to do that.

Another cost-saving measure can be to explore the differences between seat-based and site-based licenses. What is the break-even point for the vendor? It can be more cost effective to have site-based support versus all-day off-site training requiring substitute teachers to be hired or professional development days to be used to do it. There can be different prices for different options in a variety of areas. Figure out with the vendor which options are best for specific implementation.

Any time a district sees or is offered the "perpetual license" option, they should proceed with caution. Perpetual licensing, which is generally reflective of older technology, is on the decline and has many pitfalls, including server-based technology, which limits access to data outside of school walls, and annual maintenance fees in addition to server and hosting fees. The burden of support and maintenance is often on the district, including maintaining IT staff. Often, perpetual licensing does not include getting the latest version of the software.

Leaders should ask for five or six references of a similar size district. After hours, leaders can email or call these references and leave this message: "If you think [product or service] of [the company] is truly outstanding, please call me back and leave a message. Otherwise there is no need to call me back." If the references are true "champions" of the company, product and service, they will return the call. If they do not return the call, leaders should find another vendor. A company with outstanding products and service has true champions that WILL return the call. On reference calls, leaders should spend at least one third of the time discussing service, including account management, data migration and roster sign-on, and the product development roadmap for the future.

IMPLEMENT, IMPLEMENT, IMPLEMENT

While many districts will focus on finding the program or product that meets 100 percent of their needs (which is nearly impossible), this is actually less important than strong implementation. Districts should find a program or product that enables them to implement at 100 percent—even if it only meets 80-90

percent of their goals. Buying fewer products and going deeper with them ensures correct implementation by the entire staff. This is crucial to the success of any program. The last thing districts want for their teachers and students is a one-year implementation of a new technology. It wastes time they do not have and will leave them frustrated and unlikely to get on board with future technology changes or implementation.

Everyone—district leaders, teachers, curriculum coordinators, IT staff—needs to understand what the product is, how it will be used, and what the objectives are. They must understand the overarching technology strategy and expectations for usage of each product. Without this understanding, the success of a newly purchased program may be limited. Curriculum Associates see the most success when the "average teacher" is on board and well trained with the product. A product should work for the average teacher first—not the highest performer or the struggling ones. It needs to work for the majority—others can be helped to get on board.

HARDWARE CONSIDERATIONS

The proliferation of technology in education provides unique challenges for schools and requires dynamic approaches to ensure maximum benefit when purchasing hardware. Education is unlike most businesses, which invest in IT management to gain efficiencies within the company; IT management in education goes beyond the organization and into the hands of every client: the students. A small force often manages such a large task, as it is a rare occurrence when a district feels they have sufficient IT support. Though there is no single solution to navigating the intricacies of technology purchasing, there are a variety of methods and strategies that can help reduce some of the complexities and improve technology purchasing.

The vast and ever-changing nature of the technology landscape is a significant challenge to districts. Hardware choices vary by manufacturer, model, and a variety of specifications. The amount of information available is too great and changes too rapidly for a single individual to make optimal decisions, even if it is his or her full-time job.

COMMON HARDWARE CONSIDERATIONS

Given the complexity of many technology systems, understanding how well a certain product or purchase is meeting its goals can be difficult. Common considerations among districts can help them prioritize what is more or less important in establishing criteria for purchase, including:

- **Matched to learning goals.** Alignment to student goals matters just as much with hardware as software. Generally speaking, tablets are much better at consuming information while laptops and desktops are better for production. As such, tablets are usually a better fit for lower grades that focus more on "base" skills in Bloom's taxonomy while laptops/desktops provide more options for production and delivering higher order skills. Similar thought should be given to software purchases, which range from very specific to very broad in terms of both content and skills. CCSS-readiness is also important. If purchasing hardware, does it meet the recommended specifications of testing consortia?[2]
- **Supportive culture.** Change is difficult no matter the circumstance, and culture is crucial to success. Understanding a staff's current level of comfort with technology is essential to a successful implementation. If teachers are not comfortable with the technology, they will not use it. A teacher not using a product means

it delivers zero benefit, which also results in zero value, no matter how low the purchase price was. Not every teacher will be on board right away, but creating a culture of innovation, or willingness to try new things, is essential in adopting new technology.

- **Budget.** In addition to the aforementioned considerations, which are focused on usage and benefit, cost is almost always a common consideration. Many districts are finding additional funding sources for technology purchases in the short term. These may be grants, bond initiatives or additional funding means. While this resourcefulness is encouraged, it is also important to focus on long-term sustainability. If the purchase helps improve learning outcomes, how will it be integrated as part of the ongoing budget to ensure it can remain a part of instructional delivery? It is also worth exploring what forms of cost-savings hardware might be able to provide (e.g., paper savings, textbook costs, etc.).
- **Premium products.** Device costs can be minimal, or incredibly high, ranging from $100-$1,500. While some low cost devices may not have the functionality needed, money saved on devices can be reallocated to improving learning outcomes via better curriculum or PD. Districts must discern whether the educational benefit justifies the additional cost, as well as whether this benefit could be attained through lower cost methods. While many districts see the value in premium products, it is also important to remember that premium selections tend to increase future costs as organizations are more reluctant to adopt cheaper options in the future. A worthy exercise would be to split into three staff teams, each one developing an educational business case for a low, medium or high cost device. Once team tasks are complete, the educational merits of each option (regardless of cost) should be discussed among the entire group and some form of consensus attained about what each can deliver and how they differ.
- **Process improvement.** Strategic hardware purchasing is often done every three to five years, and districts should view these purchases as a process, not a series of individual events. In other words, current hardware purchases should influence future ones. Understanding how well these products are performing, how well they are meeting the expectations of the RFP (if issued) and how well they are meeting the needs of the instructors and students are incredibly valuable pieces of information that should inform future purchasing decisions. Feedback like the aforementioned surveys, among others, should become common practice.

PRIMARY HARDWARE COST CONSIDERATIONS

Understanding which information is most important will help purchasers discern the true value of a purchase. The value equation of any purchase has two parts: cost and benefit. Benefit is much harder to define, as it depends on the product or solution, the quality of implementation, as well as the circumstances. Districts must determine which benefits they hope to gain from technology purchases, and then seek solutions that deliver those benefits. Though costs can seem complex, focusing on the most important factors can help simplify estimated costs of a purchase:

Consider Trade-offs

If the device that does 90% of what is need is hundreds of dollars cheaper than the device that does 95%, which will benefit the district more?

- Matching product to need;
- Ensuring the product is used in a timely manner;
- Avoid purchasing prices on standard contracts;
- Comparison shopping; and
- Negotiation.

Though many districts likely face budgetary constraints, making decisions on technology purchases should be based on maximizing value. Enlisting the help of others can help in discerning potential benefits. Focusing on key expenditure factors can help in understanding, and potentially reducing, costs and maximizing value.

SECONDARY HARDWARE COST CONSIDERATIONS

Hardware usually accounts for the single biggest technology expenditure, increasing the importance of understanding some of the peripheral pricing considerations. Determining hardware needs should start with learning goals and eventually work toward core device functions. Functionally speaking, specifications like processor speed, RAM and memory are key cost drivers. In determining need, it is usually best to

SIMPLE STEPS TO COST SAVINGS

establish a minimum for each of these, and then determine which devices meet these specifications. This results in a higher number of potential devices, and thus more competition.

Warranties can also play a significant role in the cost of a device. As warranties have evolved over the years, one of the most attractive options has become the on-site replace or repair. Many districts view this as a way to keep IT maintenance costs down by not needing as many repair staff, though it is highly unlikely that IT staffing needs would be completely eliminated due to issues like coordination and low-level upkeep. The benefit may be worth it for some, but for others the cost is too great. The common laptop's average failure rate is 20 percent over three years, so a warranty that increases the price by 30 percent is likely a bad deal.[3] The district could buy 20 percent more laptops as replacements and still save 10 percent.[4] The concept is simplistic, but the point is important, especially when considering that the $600 laptop purchased in year one is only worth about $200 in year three. For purchasers that see value in buying a warranty, competitive bidding is recommended as a potential method of cost reduction. Suppliers and retailers will often offer a warranty, yet additional third party providers like SquareTrade and ElectronicWarranty.com usually provide the same level of service at a fraction of the cost.

Another secondary hardware cost is technical support services. Schools, districts and networks should plan on providing multi-tiered technical support services including self-help, online, phone and onsite. Maine built these services into their laptop RFP.[5]

Districts are increasingly turning to relatively inexpensive simple web appliances, like Google's Chromebook. With $200 student access devices like these, it is affordable for every school to provide a device for every student. With all the free apps and open resources available, it is less expensive to go digital than to buy a stack of textbooks.

STRATEGIC PURCHASING

Top-notch technology purchasing is less about getting the best possible deal for a single purchase and more about ensuring great deals on every purchase. Each district executes on two types of technology purchases: strategic and reactive. Strategic purchases are often proactive, well thought out, and usually have a higher impact. Strategic purchases usually involve some form of supplier relationship and contract. These contracts may be established by the state, some form of consortia, the district or various other means. The predominant goal of the contract is two-fold: to enable necessary purchases at the best possible cost. These contracts often provide time-savings for those looking to purchase, though there seems to be little in the way of cost-benefit for technology purchasers that do not negotiate beyond the standard price.

Though price is important, it is not the only factor of cost, and money can still be saved after the strategic purchasing contracts are in place. One key area of managing this cost is making sure existing contracts are being used. Maverick spending, also known as off-contract spending, can be a primary driver of increased costs, as noted in several studies by the Aberdeen Group, a market research consulting firm.6 Managing maverick spending can add value to technology purchases, though cost and benefit can vary greatly. At a minimum, districts should set a goal as to how much of their technology purchasing should be strategic and how much will be reactionary (to serve an immediate need) and/or maverick. Measuring these metrics requires additional effort and establishing systems and processes (such as purchasing portals and purchasing cards), and improving them would also require additional resources. For those who see a great amount of benefit from spend management, companies like ActPoint KPI, Allovue and SpikesCavell, among other procurement organizations, provide these services to districts.

VENDOR STRATEGY

Vendors are a very important part of technology purchasing, as products and solutions would not exist without them. On the whole, vendors really want what is best for education because a successful product leads to a successful business. That said, almost every purchaser has a story about an over-eager sales rep or a company with questionable intent. The simplest way for purchasers to ensure that these stories remain exceptions is to foster competition continually. Purchases should be based on who makes the best product, not who has the best sales team. Though this advice seems simple, one would be amazed at how close relationships can get between purchasers and vendors, and how that relationship affects purchases.

Beyond fostering competition, there are a variety of additional approaches purchasers can take to help improve the technology offering, including:

- **Device or solution.** In issuing an RFP for devices, requesting minimum specifications can help promote price competition, as it will bring more vendors to the table. Sometimes the problem may be identified but the solution is not, in which case purchasers may be better off leaving as much flexibility for vendors as possible to allow them to get creative (though prices will likely be higher).
- **Vendor benefits.** What can be offered to the vendor to help increase the overall value? Often bundling some combination of hardware, software and services is less expensive than purchasing separately. This should only be done for products actually needed (not extras) and well-researched to determine what savings will actually be attained. Vendors are also looking to create customers for life, so any purchases by schools have the potential to be magnified by additional purchases by students and family members in the years ahead.
- **Vendor accountability and feedback.** Suppliers are always looking for an edge on the competition, and providing valuable feedback will not only help them improve their product but could also lead to small discounts—especially for new products or small companies. It is also worth understanding how suppliers hold themselves accountable for performance. Ideally, all suppliers would provide guarantees and assurances, though their level of comfort with this idea may vary. A discussion about what is expected from the product and what can be done if it does not deliver can help maximize benefit in relation to cost.
- **Central point of purchasing.** The more resources a vendor must dedicate to providing a product or service, the less likely a best price will be attained. Though input from a variety of people is important in deciding what is needed, accountability and efficiency are often increased when fewer individuals have strategic purchasing authority. Clear messaging to vendors about expectations and consistent actions in response to potential purchases can help suppliers ensure they are dedicating the right resources at the right time to ensure a positive transaction for all.

WORKING IN NETWORKS

Designing, building and sustaining a great school around a student-centered, technology-supported mission requires extraordinary leadership and perseverance. Add the challenge of integrating technology systems and aligning them with a school model, and a big leadership challenge is created. Most schools benefit from collaborating with other schools in their district or with like-minded schools in a network to purchase technology and support services.

School networks share a common mission, pedagogical approach, measurement systems, structure, schedule and staffing strategy.[7] Networks are usually horizontal (i.e., same school model and support system), but the concept could be applied to a vertical feeder pattern (e.g., Reynoldsburg eSTEM) or a small district (e.g., Mooresville) where all the schools use a similar approach and the same systems.

School networks (e.g., charter management organizations and school developers like New Tech Network) have demonstrated potential for high performance and scalability. Many networks have become innovation engines (e.g., Aspire, Summit, Leadership, Michigan's Education Achievement Authority) co-developing platforms that complement new school models.

Nonprofit school networks have perpetual mission-focused leadership that creates the potential for sustaining mission-focused coherence over time. With an agreement regarding autonomy, 'air cover' can even extend to a district school (like many New Tech, Big Picture, or Expeditionary Learning schools). Most schools have a better chance of achieving and sustaining high performance by joining a network.

Networks can provide "powerful collaboration opportunities for teachers and administrators outside the 'normal' silos found within a district or site-based governance structure," said Lydia Dobyns, former New Tech Network CEO. She continues, "The more we can transform instructional practices from 'closed fortress' to open, connected and transparent practices, the more effective the teaching and learning."

BUYING IN BUNDLES

Guided by their unique educational priorities and network mission, a new possibility for school network leaders to explore would be the formation of common information technology bundles. To the extent possible, these could include:

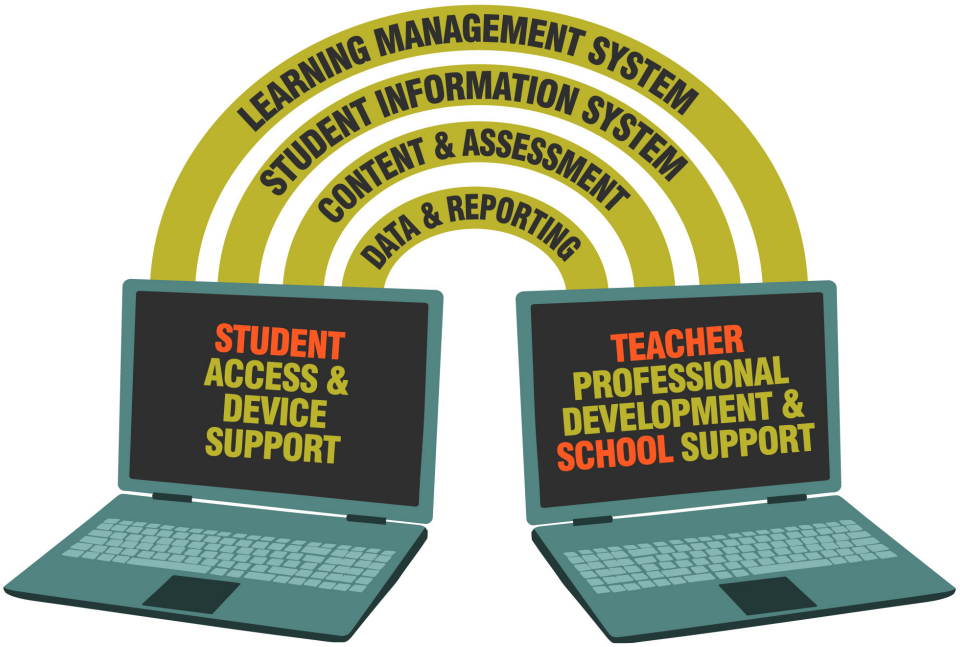
- Student information system;
- Learning management system and content;
- Assessment, data and reporting systems;
- Professional development services; and
- Student access devices, insurance and support.

It is hard enough for a network to make this series of decisions and try to get everything to work together; it certainly does not make sense for every school to build a custom bundle. Network bundles should be driven by the needs of each network, and should not be confused with the "bundles" that companies sometimes use as a marketing strategy to make products look more attractive.

Networks should use a combination of smart procurement and selective internal development to offer their schools access to attractive pricing on integrated products and services. Networks can use an RFP to consider software, hardware and support bundles. As noted above, caution should be exercised before launching customization projects. Networks should identify common spends at common times and leverage strategic procurement (e.g., volume discounts, single delivery, etc.) to save time and money. Like Maine, networks may want to purchase multi-tiered technical support services.

Networks should support online teacher development plans with on-demand and team-based resources, as well as network-wide professional learning communities. Networks should work with an online learning provider to leverage teacher talent and expand access to electives (see New Tech example) as well as advanced courses.[8] Working with an online special needs partner has the potential to improve efficiency and effectiveness of service delivery, particularly in hard-to-staff specialties.

A city like Chicago could create incentives for schools to join one of six to eight platform-centric networks over the next few years. Each of these networks would have a school model, common support services and a common bundle of integrated technology systems. A network-based strategy like this would reduce political and technological risk, compared to an approach based on a single platform/device.



PROCUREMENT POLICY

IMPORTANCE OF STATE PROCUREMENT POLICIES

The new era of CCSS, emerging technology innovations, and tighter budgets requires a modernization of our procurement policy and systems. Procurements are the main vehicle through which schools and state government purchase most products and services. IHS Global Insight forecasts that government purchases of goods and services will reach $3.09 trillion in 2014, up from $3.02 trillion in 2013.

Education buyers—schools, school districts, and state agencies—approach purchasing decisions the way that many large government agencies do: extremely cautiously. They are conservative in their approach to procurement out of an abundance of concern about misusing funds, embarrassment from failed initiatives and creating too much change that could lead to a backlash from teachers and parents. They are also desensitized from years of claims from vendors about products or services delivering results after being disappointed from missed expectations.

There is growing agreement that the patchwork of procurement policies, systems and regulations accumulated over decades is not serving organizations or providers well. At the most basic level, good procurement policy is intended to ensure that contracts are awarded through a fair and open process, to meet school and state agency needs, while guarding against corruption, fraud, waste and abuse. However, the web of red tape requirements has led to a process that rarely serves anyone well.

EdSurge has said that the procurement system is broken because the "process by which most schools make EdTech purchasing decisions hurts kids." That is only partially true. School administrators are bound by federal, state and local regulations that restrict how purchases are made, in addition to limitations set forth by their own district regulations that can be amended. For example, some federal funds fall under Davis Bacon requirements that guide the use of prevailing wage for the projects.[9] Many states require that procurement projects give priority to women- or minority-owned businesses or providers that are based within the state.[10] Even the American Recovery and Reinvestment Act of 2009 (ARRA) created confusion for school systems due to an awkwardly phrased requirement for all stimulus funds to be used only for "American made manufactured products".[11] There are well-intentioned policy arguments behind these and numerous other requirements. But the net result is a complexity that shifts purchasing decisions farther from the classroom to a centralized office that is more focused on compliance than securing the best solution.

MODERNIZING PROCUREMENT POLICY

Modernizing procurement is not simply about administrative efficiencies. It is fundamentally about ensuring that teachers, students and support staff have the tools, resources and services they need to reach the high aspirations outlined by the CCSS. There are three main challenges with the current procurement process:

1. **The Buyers Are Not the Users.** There is a tremendous difference between how products and services are bought in the consumer market versus the education sector. With consumers, the buyer is often the user. In education, however, the buyers are not necessarily the users—students and teachers. States and districts often purchase services and products on behalf of schools, which can help with standardization and negotiating better pricing, but may also force one-size-fits-all solutions on teachers with unique needs. This creates enormous challenges in ensuring that teacher and student input is part of the design and decision process, as well as ensuring that vendors are building the right solutions for the right challenges. In an American Enterprise Institute (AEI) paper, entrepreneurs Larry Berger and David Stevenson listed all the individuals they encountered during one sales cycle: state policy people who oversee the relevant funding streams, academic consultants who advise the districts, key school board members, the district curriculum leadership, the special education department, the office of research and assessment, the Chief Information Officer, the Director of IT, the principals of the individual schools, the reading coaches in the individual schools and the district lawyers.[12]

2. **The Process is Lengthy and Cumbersome.** TechAmerica has noted that "procurements are often time-consuming, resource-intensive, expensive, risky and just plain painful for both the public sector and vendors."[13] The frustrations run deep for the growing ranks of innovators who believe the long procurement cycles of 12-18 months can drive away smaller providers that cannot afford to invest the resource or time in projects that may (or may not) pay off months later.

   Larry Berger and David Stevenson of Amplify reference a story that illustrates the challenge.[14] "At a recent presentation we made to Stanford Business School students interested in education, a student provided what was almost the right diagnosis of the industry: "From the complexity of the district decision-making process you just described, it seems that in education, no one is in charge." Our wistful reply: "If only that were the problem, but the situation is much worse: In education, everyone is in charge." They go on to talk about a process that involves reaching out to state and local leaders, consultants and teachers. They observed, "[O]f this long list of people who are 'in charge', most of them are only authorized to say 'no'. Only a few people have the budgetary or instructional authority to say 'yes'."

3. **Policies and Regulations Hinder Discussion.** Many procurement processes limit the communication between a vendor and the buyer. This is often done with the intention of ensuring the competition is fair and open to all participants, so that one vendor does not have an advantage due to information that was not shared with others. As a result, there is little chance for external experts and providers to help shape the scope of the procurement—to help inform the buyer of new approaches or methods of providing a service, for example.

There are several ways states can modernize their policy environments to provide more flexibility to schools:

1. **Develop Waivers.** Pennsylvania launched a Mandate Waiver program that allowed schools to request flexibility from any regulation that would enable the applicant to improve its instructional program or operate in a more effective, efficient or economical manner. Over its nine-year history, until expiring in 2010, more than 67 percent of the waiver requests were mandates related to procurement.[15]

2. **Create Space for Exploring User Needs and Supplier Capabilities.** Before a formal procurement process is begun, buyers should facilitate conversations both with the users to gain a better understanding of their needs, frustrations and pain points, as well as with potential vendors to better understand the universe of possible solutions of which the buyer may not have been aware. Kim Smith and Julie Petersen of Bellwether argue, "This hampers effective decision making by schools and districts, who are shielded from an understanding of what's on the market that might meet their needs, and slows the development and spread of effective solutions by suppliers kept relatively clueless about users' needs. What's more, educators rarely have school-level autonomy over their budgets, which keeps them from choosing the products and services most closely tailored to the needs of their students and staff."[16] The use of RFIs can be useful to help solicit some of this information.

   States and districts should explore procurement reforms like Pennsylvania's Invitation to Qualify (ITQ), which is a two-step process, utilized to provide various types of services to Commonwealth agencies. The first step is a pre-qualification process that is used to qualify suppliers for specific services. The second step is a quoting process utilized by the agencies when services are required. This creates opportunities for vendors and agencies to have discussions and negotiations without violating the procurement process.

3. **Modernize Conflict of Interest and IP Policies.** There is a series of regulations aimed at preventing former employees from using their relationships for undue lobbying, as well as to protect the intellectual property created by the organization. However, these policies are sometimes so rigorous that they prevent the very type of innovation many want to see. For example, School of One was developed by New York City but had to spin off to a new non-profit, Teach for One, in order to replicate their model in other school systems. But as a city employee, Joel Rose was prohibited from not only negotiating the terms of new organization (even though he was going to run it) and also talk with any city officials for a year (even though he was supposed to be running a

service to serve the city's schools). Reflecting on the situation prompted Bellwether's Andy Rotherham to note "that public school systems need to make sure that conflict of interest and other procurement rules are at once rigorous but also nimble enough to support genuine innovation by allowing new ideas to flourish, grow, and ultimately spin-off or travel to other places."[17] Examples representing how innovative districts can do this include Aspire's Schoolzilla and LearnZillion, a for-profit education site that was incubated at E.L. Haynes Public Charter School in Washington, D.C.

4. **Make More Use of Prizes.** Outside of the traditional procurement processes of RFPs, financing instruments such as prizes pay only if specific results are achieved. So instead of paying for inputs and process in the hope of a service being delivered, the pay out only occurs once a problem is solved or outcome metrics are met. As McKinsey & Company has explained, "[a] rule of thumb holds that prizes are useful tools for solving problems for which the objective is clear, but the way to achieve it is not."[18] The other advantage with prizes is that they attract a diverse talent pool—including experts who might not otherwise be tapped to build solutions. "By attracting diverse talent and a range of potential solutions, prizes draw out many possible solutions, many of them unexpected, and steer the effort in directions that established experts might not go but where the solution may nonetheless lie."[19]

   Governments have used prizes in the past. In the early 18th century, the British Parliament offered £20,000 (more than $1 million U.S. today) to anyone who could solve the problem of determining longitude at sea. The answer did not come from the expected set of experts or academic elite from that day, but instead from a little-known, self-educated clockmaker named John Harrison who invented the chronometer. And it was a $25,000 prize that not only drove Charles Lindbergh to make the first trans-Atlantic flight, but to do so with an engine design that defied the conventional wisdom.

   Prizes enjoy wide bipartisan support ranging from former House Speaker Newt Gingrich discussing them as far back as 2002, and more recently, President Obama. In 2010, the reauthorization of the America COMPETES Act included language giving all government agencies legal authority to sponsor prizes of up to $50 million.

   States and districts should also explore the relatively new financing mechanism of Social Impact Bonds (sometimes called a Pay for Success Bond), which allows public agencies to partner with innovative providers and permits other investors or philanthropies to cover the upfront costs and assume performance risk. This helps ensure that taxpayers will not pay for the programs unless they demonstrate success in achieving the desired outcomes. This is a new and emerging area that could offer government agencies and even districts opportunities to explore new service arrangements.

5. **Consider Piggyback Clauses.** School districts and state agencies should explore the use of "piggyback clauses" in their awarded procurement contracts. These give other public entities the option to purchase participate in a contract, meaning that instead

Using Prizes and Pull Mechanisms to Boost Learning, another resources in the DLN Smart Series, explores the questions such as: What learning outcomes would be good candidates for the focus of a pull mechanism to catalyze the creation and use of new learning technology? How are these learning outcomes currently measured and assessed? What changes in public policy would facilitate experimentation with pull mechanisms at different levels of government? What role might different stakeholders (e.g., federal agencies, state and local educational agencies, foundations, researchers, practitioners, companies, investors or non-profit organizations) play in designing, funding and implementing a pull mechanism for learning technology?

of issuing their own procurement, a public entity could purchase or lease the same product for the same terms negotiated under the original procurement. This provides a purchasing option for other entities while still preserving their flexibility to launch their own procurement process if they believe they could secure better pricing or terms.

6. **Explore Cooperative Purchasing.** One strategy used for years to help secure better pricing is cooperative purchasing, in which demand is aggregated and then bid out on behalf of the participants. For example, PEPPM is a collaborative purchasing program operated by the Central Susquehanna Intermediate Unit (CSIU) in Pennsylvania designed to reduce the time and effort between the decision to buy and the receipt of products. Currently, the program serves 900 school districts, regional educational service agencies, private schools, community colleges and universities in more than 40 states. The New England Compact brought Maine, Rhode Island, New Hampshire and Vermont together to develop new state assessments that would otherwise not be affordable to any one single state. The Maine Learning Technology Initiative is another example of leveraging a multistate relationship to drive better terms for purchases.

   It is also worth considering creating better metrics to gauge the efficiency and effectiveness of procurement processes. For example, using a version of the World Bank's Doing Business survey would offer useful information about how receptive various states and districts are to innovation and provide metrics about how easy it is to do business with those entities. Asking suppliers questions about the number of steps and length of time for its charter school approval or procurement processes, the length of the average RFP, the cost of securing a contract or complying with regulations would do two things: First, it would provide more information to suppliers to help prioritize sales opportunities and allocate scarce resources. Second, it would provide new benchmarks for policymakers to improve upon, just as the World Bank found that countries launched reform strategies to reduce the steps and complexity of their business regulations.

   Federal policymakers also have an opportunity to reform the E-rate program to promote more efficient procurement. A coalition of Digital Learning Now, Council of Chief State School Officers, Chiefs for Change, iNACOL, the Clay Christensen Institute, Knowledge Alliance and National Alliance of Public Charter Schools urged the Federal Communications Commission (FCC) eliminate existing disincentives to consortium participation by simplifying and streamlining consortium application processing, including prioritized review by dedicated review personnel.[20] Going forward, the FCC should prioritize consortium funding and provide an additional 5 percent consortium-specific discount. The FCC should also provide a more inclusive path for applicants to take advantage of statewide contracting and bulk buying opportunities. The goal is to eliminate the need for duplicative competitive bidding obligations by increasing reliance on state and local procurement laws.

CONCLUSION

The recognition of technology's potential to personalize learning has led to an increasing number of schools and districts seeking to make sense of an ever-growing pool of products that may or may not meet their needs. In a rush to implement, leaders often make under-informed purchasing decisions and end up paying too much, getting too little, and then discovering that nothing works well together.

In order to prevent inefficient spending and to create the best conditions for high-quality blended learning to thrive, school and district leaders should be intentional about procurement decisions by following the smart buying process laid out in this guide.

The 12 Keys to Smart EdTech Procurement recommend starting with clear goals and moving through purchasing decisions that keep educational goals at the center. When strategic purchases are proactive and well thought-out, they usually deliver higher impact.

Implementation also influences impact. The quality of implementation is often linked to a number of variables including change management, school culture and support from strong leadership.

State, district and school-level educational leaders are facing shifts to higher standards, the next generation of assessments and an explosion of EdTech solutions. The combination of these factors can be overwhelming, but a common thread unites them. Each presents the potential to personalize learning and bring high-quality educational opportunities to students in a way that has not yet been achievable at scale.

According to A Blueprint for Effective and Adaptable School District Procurement, a 2015 report from CRPE, research based on interviews with leaders in six large urban school districts suggests that "outdated procurement policies coupled with the risk-averse cultures and habits of central office staff present real barriers to school change and improvement efforts. This results in significant costs and wasted time as schools struggle to get what they need and central offices shuffle proposals and requests between departments." The report goes on to conclude that "school districts that are serious about wanting their schools to solve 21st-century problems can learn much from procurement reforms in other sectors. Large urban districts with the most complex procurement systems may be most ripe for reform. The most important lesson: Retooling systems to welcome innovative technologies means more than simply instituting isolated policy changes or deleting a few steps on the procurement checklist. Using procurement to support innovation requires a fundamental shift in mindset and culture, offering a whole new way for school districts to conceive of public-private partnerships, school level decision-making, strategic purchasing, research and development, and risk management."

APPENDIX: SMART PROCUREMENT RESOURCES

Digital Promise, Evolving EdTech Procurement
http://www.digitalpromise.org/ideo-digital-promise-release-evolving-ed-tech-procurement-in-school-districts/

Education Elements Hardware Analysis
http://www.edelements.com/download-the-hardware-selection-whitepaper

PEPPM Buyers Guide
http://www.peppm.org/services/PEPPM_Buyer's_Guide.pdf

CRPE, A Blueprint for Effective and Adaptable School District Procurement
http://www.crpe.org/sites/default/files/crpe-report-effective-adaptable-school-district-procurement_0.pdf

The Learning Accelerator, EdTech Procurement in Houston Independent School District
http://learningaccelerator.org/media/fc2ec2cf/EdTechPurchasingSnapshot-FINAL-June2014.pdf

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John Bailey serves as the Vice President of Policy at the Foundation for Excellence in Education, a state-based education advocacy organization. His experience includes senior positions in the private sector, White House, and U.S. Department of Commerce. He served as the nation's second Director of Educational Technology at the U.S. Department of Education. He co-founded Whiteboard Advisors, where he helped government officials, policy influencers, investors, and technology leaders understand and navigate complex regulatory issues and adopt innovation-friendly policies. He also served as a senior program officer at the Bill and Melinda Gates Foundation. He is currently on the Board of Directors for the Data Quality Campaign and previously served on the regional board for the social innovation fund Indego Africa. He is an alumnus of the American Council on Germany Young Leaders Program and in 2014 was selected to participate as a Pahara-Aspen Fellow.

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ENDNOTES

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