

PLANNING GUIDE TO
Technology
Procurement
and Purchasing

Calculating ROI
and Total Cost
of Ownership



The Cloud



Top Tech Trends



THE EXPLOSION OF ONLINE LEARNING, BYOD, THE FLIPPED

classroom and mobile devices have solidified the need for a strong investment in school technology. Yet, we live in an age of budget cuts, where school resources are constantly shrinking and technology departments are being asked to do more with less. Spring begins the purchasing and procurement season for most K-12 schools. As IT directors, A/V staff and district administrators begin to think about technology needs, really scrutinizing every proposal is important. With less money available for technology initiatives, every purchase must be strongly justified. Why is this tool better than that one? How can this piece of technology enhance the learning environment? Do we have the staff to support this initiative?

Every purchase must also be curriculum driven. If it doesn't work with what you're teaching now, well, it just won't work. Fortunately, there are ways to make smart purchasing decisions that both meet your needs and help you plan for the future. In the following article, "Purchasing K-12 Technology: Tips for Planning, Funding and Future-proofing New Tech," an education consultant shares her top buying tips. You'll also learn the importance of ROI (return on investment) and TCO (total cost of ownership) calculations in conducting a cost-benefit analysis of planned purchases and how to future-proof your technology investment. If you're looking for technology grants, K-12TechDecisions.com has a guide that provides you with information about specific grant programs, deadlines and how to apply.

Also on K-12TechDecisions.com we have a number of product guides. These guides can be found in many product categories including interactive presentation systems, short-throw and ultra-short-throw projectors, loudspeakers and many, many more. Each guide contains up-to-date product information including photos and specifications.

I hope this guide helps you through the purchasing and procurement process and if you want to share some of your technology initiatives, you know where to find me.

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PURCHASING K12 TECHNOLOGY

Tips for Planning, Funding and Future-proofing New Tech

Calculating ROI and total cost of ownership (TCO) is key to a successful purchase.

by Jackie Deluna

GOVERNMENT SPENDING ON PUBLIC SCHOOLS IS EXPECTED TO CONTINUE TO GROW over the next two years, but at a slower pace than in the past. By the end of the fiscal year 2013, K-12 will spend \$9.7 billion on technology, according to the Center for Digital Education. Increasingly, educational policy makers are seeking evidence that their highly visible investments in technology are meeting educational needs and that these IT investments are closely monitored and well managed. As such, schools are required to plan, enhance and sustain their technology purchases.

Planning for New Technology Purchases

With the tightened budgets, districts are coming under pressure to articulate the costs and benefits of existing and planned technology expenditures. Because of these issues, adoption of total cost of ownership (TCO) and return on investment (ROI) tools to measure the cost and effectiveness of technology initiatives are becoming a necessity. Many manufacturers and providers understand these tools.

“We feel schools should understand up front the pros and cons of their purchases. As a vendor, transparency is important when establishing a partnership,” says Michael Peveler, vice president of Education for AMX, a company that provides automation and control technologies to K-12 schools worldwide.

The U.S. Department of Education and the Obama administration have established strong priorities for education. These priorities, found on the White House Education Issues Web page, are typically promoted through both formula and competitive funding from the U.S. govern-



A Total Cost of Ownership calculation can tell you a lot about the sustainability of your purchase. Your evaluation should include these questions:

- 1. What impact will the new technology have on the existing infrastructure?**
- 2. How much support by IT staff will be required?**

ment. The priorities that are currently being supported are:

- Preparing students for college and careers
- Increasing student achievement
- Turning around low-performing schools
- Providing strong early childhood education experiences
- Creating great teachers and great leaders

Enhancing the Learning Environment

Academic achievement should be the first priority when it comes to technology purchases. Be sure to purchase new technology tools that enhance curriculum, not distract or stifle. Purchasing technology tools without analyzing the impact on academic achievement is a backwards approach. When considering new technology purchases there are two questions that decision makers should address:

- Does it enhance the learning environment?
- What are the benefits of implementation?

Mobile initiatives, virtual learning, the move to online assessments, the advent of big data and the demand for anywhere, anytime learning is increasing at a rapid rate. More and more schools are turning to cloud-based digital content to enhance the learning environment. According to the International Association for K-12 Online Learning, 30 states have established full-time online schools, while 40 states have a virtual school or online initiative. The K-12 online learning market grew from 40,000 to 50,000 students in 2000-2001 to more than 2.1 million students in 2011-2012.

“Schools are increasingly demanding end-to-end integration of data, which is possible only in the cloud,” says David Hundsness, founder of Jupiter Ed, provider of cloud-based educational tools. “With our solutions, a student can study a tutorial on their tablet while their teacher monitors their progress, then take an assessment online, which feeds directly to the teacher’s gradebook, which feeds into the Student Information System (SIS) where administrators can run analytics to measure the effectiveness of both the cur-

riculum and the teacher.”

When enhancing academic achievement with technology purchases, deployment of new technology will be successful. Purchasing technology any other way is a recipe for unused equipment and wasted dollars. Besides enhancing academic achievement, sharing the benefits, goals and objectives with the teaching staff is important. They will want to know if the tool will help struggling readers or if it will help streamline data collection. Teachers need to know the benefits of “why” they need the tool before they can commit to the “how” to use the tool. Comprehensive professional development plans are key in effective deployments of new technology.

Sustaining Your Technology Purchases

Using a TCO evaluation during the planning process for technology purchase is critical. The TCO evaluation should address two important questions for sustainability of technology purchases.

- What impact will the new technology have



TD TIP

Budgets cuts have made return on investment (ROI) and total cost of ownership (TCO) calculations more necessary than ever. With limited funds available, districts are now under greater pressure to articulate the costs and benefits of existing and planned technology expenditures.

on the existing infrastructure?

- How much support by IT staff will be required?

Many schools are considering cloud-based solutions versus local server-based solutions. There are some key factors that you need to consider when weighing whether to use local server-based or cloud-based solutions. These decisions require IT departments to evaluate their existing IT infrastructure.

With cloud solutions and SaaS, or Software as a Service, the school's data is managed and hosted by a vendor (in the Internet "cloud") and is accessed by customers using a Web browser. Initial costs are typically much lower because you simply implement the Web app to your requirements and then access it through your computer's Internet connection.

The cloud service provider hosts and maintains the applications and their infrastructure for you, ensures the system is always running, ensures that the data is secure and that product enhancements are rolled out painlessly, according to a Netsuite study. Ultimately, this allows your IT resources to focus on innovating and helping support the schools more effectively, rather than spending a disproportionate amount of their time on maintaining and managing local server systems. Cloud solutions also offer predictable, pay as you go subscription models that can make cash flow management and planning much easier.

Local server-based solutions are where the service is installed on the campus hardware and servers and then managed by your IT staff. Local server systems usually require large upfront and ongoing investments to purchase and manage the software and the related hardware, servers and facilities necessary to run, but reduce the recurring fees of a hosted solution. If your school doesn't have a large or experienced IT staff, you may also have to invest more time and money in additional personnel and train them. Even more importantly, local server systems require that your IT team spend a significant amount of their time and budgets ensuring your system is up and run-

ning when you need it, including maintenance of hardware, nightly backups, server rooms and more. When it's time for your local server system to be upgraded, IT must then redeploy the system across the various users' computers and reimplement various customizations and settings.

K-12 education has been the most hesitant to move to cloud-based, hosted solutions when it comes to student data and confidential information. Their main concern is remaining compliant with local and federal privacy policies. Cloud computing stores information on a central server that (potentially) allows any Internet-capable device access to this information. This opens up a can of worms for maintaining compliance with HIPAA, FERPA,



When buying new software applications, schools must decide between cloud services or locally hosted, server-based solutions. For schools with a small or inexperienced IT staff, a cloud service may ease the burden by allowing staff to allocate time and resources elsewhere.

If you choose a cloud service, make sure your provider offers security measures to keep data safe. Access to grades and other confidential information should be protected just as it would be if stored on your own server.


the Freedom of Information Act and other confidentially held records. It is important for schools to look for cloud providers that are compliant to the privacy of data and records.

Funding Technology Purchases

Ninety-three percent of school districts rely on federal grant programs like Investing in Innovation, Race to the Top, Title I, E-Rate and others. Districts also rely heavily on state and local grants (77 percent), PTA and school association fundraising (77 percent), private grants (75 percent) and technology bonds (30 percent) to fund education technology. There are many private, local, state and federal funding programs, including:

- Title I
- 21st Century Community Learning Centers
- E-Rate
- Individuals with Disabilities Education Act (IDEA)
- Statewide Longitudinal Data System Grants
- School Improvement Grant
- Race to the Top
- Investing in Innovation (i3)
- Career and Technical Education (formerly Perkins Vocational and Applied Technology Act) Charter Schools
- Magnet Schools
- Enhanced Assessment Grants Improving Teacher Quality (Title II) Language Acquisition State Grants
- Mathematics and Science Partnerships (STEM) Striving Readers

When looking at funding of your technology purchases, leveraging a variety of sources in support of your goals and objectives is important. As mentioned previously, additional funding is not always required with technology

purchases and many times new solutions will save money, providing the ability to reallocate existing funds. 

Jackie Deluna is a global education strategist and has served as an education technology consultant for corporations providing industry research, strategic marketing, trends and drivers in education technology. She has served on educational committees at both the state and federal level and has an extensive background in funding opportunities and trends in the education market. Jackie is a former educator and administrator in both K12 and higher education.



It's important to share the benefits and goals of new technology with teachers. They need to know the benefits of "why" they need the tool before they can commit to "how" to use the tool. Professional development is a key component of making sure new tech gets used.



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