

Funding Models for E-Learning in Education

toolkits

**“In today’s global economy, eLearning is not a question of if, but rather when.”
– The One to One Computing Guidebook**

Tomorrow’s citizens and workforce deserve an education that prepares them—and their nation’s economy—to thrive in a world of rapid change and widespread globalization.

As countries prepare to participate fully in the increasingly knowledge-based, digital global economy, their education systems must evolve to better prepare tomorrow’s workforce with 21st century skills—technology literacy and the problem solving, creativity and collaboration skills that it promotes.

Despite the growing worldwide recognition that eLearning initiatives are vital to future economic development, governments and educators are still struggling with the question of how to fund them within constrained national and education budgets. To help educators and administrators create a funding strategy for bringing your eLearning initiatives to life, we’ve included the following funding models:

- **Public-Private Partnerships**— government-backed loans, bundled service agreements, seed funding, support from religious institutions, NGOs, and micro-financing
- **Technology Grants**— including public funding and private grants for hardware, software, and training
- **Bonds, Leasing and Universal Service Fees**— community bonds, technology leasing, and the use of telecommunications access fees
- **Parent or Individual Financing**— Bring Your Own Device options, tax relief, and user fees

The 21st-century skills to be gained through eLearning are critical to the success of individuals and nations. Fortunately, there are more funding models for technology purchases than ever before. To take advantage of these, schools and governmental agencies need to learn about these options, think creatively about maximizing revenue, and develop robust mechanisms for supporting those who need assistance. In doing so, they will create much brighter future for everyone involved.

Sustainable Funding

One of the keys to any successful technology purchase and implementation is that the selected funding model be sustainable. That is, to achieve the goal of moving schools to a new paradigm of teaching and learning, investment in technology cannot be a one-time effort. Schools must identify and prioritize the factors that make some technology implementations perform dramatically better than others and implement the research-based solutions that transform teaching and learning.

In October 2010, Project RED released *The Technology Factor: Nine Keys to Student Achievement and Cost Effectiveness*. This study details the two aspects of effective technology funding for schools:

- Major project initiatives often require substantial funding sources outside a school’s regular budget
- Day to day purchases and support benefit from funding through the regular budget

Many respondents to Project RED's survey noted that they started with a grant but continued to fund their programs through regular operating expenses. In order to be successful, effective leaders and policy makers need to be able to adapt to the changing funding landscape. For instance, many schools have invested in providing robust wireless Internet access in all their sites so that students and teachers can connect to the network with their own devices.

For schools to reap the benefits of an effective technology integration plan, leaders, policy makers, parents, and the community must come together to support long-term, sustainable funding. By selecting one or more of the models described in this paper, schools can change the appearance and nature of education.

Saving Money with Technology

Successful technology integration in schools can also lead to significant financial savings. Project RED's report, *The Technology Factor: Nine Keys to Student Achievement and Cost Effectiveness* documents a wide variety of ways that effective technology use in schools can save money. For instance, the report details how the reduction in dropout rates due to the use of technology can produce savings of more than USD \$56,000 per student.

In the US, the National Education Technology Plan suggests a variety of innovative practices to make the most of limited resources. Included is the recommendation to reallocate funds from textbooks, traditional instructional supplies, and computer labs to allocations for digital content delivery in the classroom. Additional cost savings can be found by reducing initial technology purchases by considering leasing and creating a technology innovation fund available across budget years.

Despite the seemingly high up front cost, effective planning and implementation of major technology initiatives can result in significant cost savings to schools. By creating a detailed implementation plan and sourcing a sustainable, long-term funding model, schools can use technology to shift the paradigm of teaching and learning.

Public Funding & Public-Private Partnerships

Many institutions and companies around the world have formed partnerships to create programs that help schools and individuals acquire technology for education. These programs address needs for Internet access, computers, and digital literacy skills.

Government-Backed Loans

A government-backed loan is a loan secured by the government, thereby protecting lenders and allowing borrowers to secure lower interest rates. These loans provide schools and regions an affordable option for purchasing technology goods and services. Some government-backed loans may also be available for individual purchases by teachers and parents. With low interest rates and flexible repayment schedules, these loans are a viable option for funding technology integration.

Bundled Service Agreements

Technology businesses, such as cable providers or computer service companies, often partner to offer special collections of services and equipment. These bundled service agreements allow schools to obtain much of the required technology infrastructure, equipment, and services at a more competitive rate than purchasing separately. In addition, bundled service agreements provide a purchasing opportunity for households where prohibitive technology services and software make computer ownership impractical.

Individuals can also take advantage of bundles that include a variety of products and services for a reduced price. In the United States, the Federal Communications Commission, in an effort to reduce the digital divide, initiated the Connect to Compete program. This partnership between multiple cable providers and computer manufacturers provides affordable technology bundles to families with children who qualify for the free or reduced school lunch program. Additional partners, including Morgan Stanley and Microsoft, offer low-cost loans and digital literacy training for families that purchase computer service bundles.

Seed Funding and Micro-Financing

Programs that provide small loans, called micro loans, to people in poor areas around the world have become more and more widespread in recent years. These funds can be used to purchase a variety of critical goods, including computers and other technologies.

In the United States, micro-financing programs also provide low-interest loans for households that would otherwise be unable to afford technology hardware and services. One of these programs is Tech Goes Home, a Boston-based program that offers computer loans to poor families. Each computer purchase includes digital literacy classes, and non-English speaking participants receive a free online subscription to Rosetta Stone. Other similar programs are the Work Loan Program in Buffalo, New York, and Project Café in Jackson and Owsley County, Kentucky.

Technology Grants

When considering education-funding options, grants provide an opportunity for valuable endowments that can support innovative technology programs. The two main types of grants, public and private, can supply funds for initial capital outlays as well as staggered deployment of technology in a school. Although the grant writing process can be difficult and the decision making timeline can seem endless, the rewards and benefits to students far outweigh the challenges. Public grants are especially useful for projects that require a large budget, due to the fact that public grants are backed by large legislative bodies which typically increase the resources available for the grant project. However, the increased accountability associated with public grants needs to be considered when applying for government funding. In some cases, the funding of public grants is subject to political swings and resources may vary annually, making them more ideal for one-time purchases or short-term funding needs.

There is also enormous potential for technology support to schools and regions through private grants. Local education foundations are non-profit organizations whose boards represent local community and education leaders and who are financially accountable to their communities. An example is the Palo Alto Foundation for Education (PAFE), which gave a grant of USD 200,000 to Palo Alto's middle school science program in 2010. According to the teachers, "Their gift of laptops, as well as large-screen LCD projectors has made an enormous difference in science classrooms, helping students to conduct research and then to pick out key ideas." Local education foundations like PAFE raise funds to provide private grants that enhance education programs and represent a long-term capital investment in technology. In addition to a straightforward application process, the limited amount of regulation and documentation of program gains is one main advantage attributed to private grants. Furthermore, the qualification process can potentially be much simpler for applicants of private grants, making them more ideal for innovative programs lacking the research needed to qualify for a public grant. However, small private foundations do not have the same resources as large publicly funded grants and therefore the amount of the grant may be limited.

Bonds, Leasing, and USF Support

To meet the technology funding challenge, states and regions may look toward long-term financing options that ease the burden of large initial expenditures. Capital bonds and technology leasing programs offer funding advantages for schools seeking a sustainable funding model that promotes long-term success.

Technology Bonds

The deployment of technology in schools requires a substantial budget, often requiring community investment and funding. However, taxing property owners to pay for large education expenses in the year they are incurred produces large hikes in tax rates and wide fluctuations in tax bills from year to year. As a result, local government bonds are traditionally used for funding large capital expenditures in the school system. Although bonds can offer a large monetary investment and foster community involvement, there are some obstacles that may impede schools trying to fund their technology initiatives. They may face difficulty in passing bond elections, particularly in economically depressed areas or those with falling enrollment. Furthermore, overburdened staff must prepare a large public campaign to secure the passage of bonds. Even if a bond is passed by voters, this financing method has limits set on the total amount schools can borrow, usually expressed as a percentage of their assessed property value.

In 2008, Denver voters approved the DPS Bond Program for USD 454 million, the largest bond ever approved by a Colorado school district. With variable issue dates, this bond continues to actively fund both construction and technology projects today. Using 2008 Bond Program savings, DPS was able to cover 70% of the cost for a new laptop for all teachers in Fall 2011. Schools matched the remaining 30%, allowing affordable equity of technology resources across all schools. Instructional technology bond funds were also approved for the purchase of new media equipment and wireless upgrades. USD 1M was allocated to a grant project to encourage the development of innovative student-based technology projects, supported by a project website that allows schools to share and collaborate on best practices. The DPS Bond Program is managed entirely by an in-house DPS Program Team comprised of field professionals who plan and manage the bond's construction services.

Leasing

Technology leasing is another option for funding technology and keeping it current. One advantage of leasing is that it takes considerably less time and effort than other funding options, including grants and bonds. It also allows schools to stretch their technology budget and provides a greater amount of equipment across schools than what could be afforded through traditional purchasing methods. This tax-exempt financing option is useful for schools with limited available capital that wish to keep pace with technology development. A lease agreement can be made through a vendor, a financial organization or another agency. Leasing through a vendor usually results in the most competitive pricing options. However, one advantage of leasing through a third-party organization is that it gives schools the freedom to choose from multiple vendors simultaneously to meet their specific technology needs.

Lease purchase agreements are considered to be one of the most flexible technology funding models because they extend the initial purchase costs over several years. While providing competitive interest rates, they also have the ability to offer flexible payment terms that fit into a school's budget and timetable. Because leases are generally structured to be funded from the operating budget, they preserve capital dollars. In addition, lease agreements often include non-appropriations language that allows the lease to be terminated if the school does not approve the technology funding in subsequent years. The equipment can be returned without additional monetary obligations, making lease agreements a relatively safe investment without fear of long-term debt.

Universal Service Fees

Schools are also funding technology initiatives through the use of Universal Services Fees (USF). With an increased global reliance on information and communication technology (ICT), emerging countries are recognizing the need to find affordable and sustainable ways to provide widespread access to digital devices and broadband connections, especially in rural and remote areas. ICT-Broadband programs combine the purchase of digital devices, broadband Internet access, and local software applications at a reduced rate.

Parent or Individual Student Funding

Two options are available for parent or individual funding—technology fees or Bring Your Own Device (BYOD) programs. Both of these funding options allow students to access technology in school and at home.

Funding Through Fees

Most schools that fund technology through fees are privately funded schools. They charge students a fee for using a mobile device that has all the required software and applications that students need to be successful. The fees charged cover the cost of the device, technical support, software, and professional development for teachers. This approach allows all students to have the same equipment and software that helps a school provide more unified professional development for all teachers. It also helps to build a strong support network for educators as they update their teaching methods to include new methodology.

Bring Your Own Device

Bring Your Own Device (BYOD) programs make use of the technology that students already own. Since many schools have the infrastructure to support wireless devices, allowing students to bring their own devices gives educators access to immediate technology integration in the classroom. Effective BYOD programs have strategies in place to help with classroom management of different devices and activities. Schools that implement BYOD programs must also provide mobile technology solutions for students who do not have their own device, and they must support the mix of the school's technology with the students' own devices. This technology-financing model requires schools to use their own funds to provide infrastructure and professional development.

The use of individual personal devices in a BYOD program highlights the shifting roles of both teachers and students in a technology-rich classroom environment. Teachers are moving towards a facilitator role as students take more ownership of their learning and share what they have learned using integrative technology tools.

Government-Backed Loans

Advantages: A low-interest option for immediate funding with a flexible repayment schedule. Suitable for large technology purchases.

Disadvantages: Limited availability, dependent upon government programs and funding incentives.

Bundled Service Agreements

Advantages: Collaboration among businesses allows for competitive purchasing rates. Ideal for first-time technology initiatives and household PC programs.

Disadvantages: Requires bundled purchases, not designed for schools or households with existing technology infrastructure and Internet service.

Seed Funding/Micro-financing

Advantages: Low to no-interest loans provide affordable technology financing for individuals. Useful for household PC programs.

Disadvantages: Small funding amounts, not suitable for larger school technology initiatives.

Public Grants

Advantages: Backed by large legislative bodies, useful for substantial technology initiatives. Ideal for one-time purchases or short-term funding needs.

Disadvantages: High accountability, funding is subject to political swings and resources may vary annually. Requires documented research of program gains.

Private Grants

Advantages: Simplified qualification process with limited regulation and documentation. Ideal for innovative technology programs.

Disadvantages: Smaller funding resources and limited grant amounts. Grant applications require significant time and effort without guaranteed results.

Technology Bonds

Advantages: Long-term financing option ideal for large initial expenditures. Fosters community involvement.

Disadvantages: Requires a large public campaign to secure bond passage. Not a viable option for economically depressed schools.

Leasing

Advantages: Long-term tax-exempt financing solution for keeping technology current. Flexible repayment options, preserves capital dollars. Safe investment with no long-term debt.

Disadvantages: Technology equipment must be returned, no long-term capital. Funding is subject to budget changes from year to year.

Universal Service Funds (USF)

Advantages: Offers great promise in helping developing nations provide affordable broadband Internet access and bridge the “Digital Divide.”

Disadvantages: The geographic size and challenging topography for many developing nations can make implementation very costly.

User Fees

Advantages: Shared responsibility between the school and families. Ideal for 1:1 technology initiatives.

Disadvantages: Predominantly limited to privately funded schools, not suitable for low-income households.

BYOD

Advantages: Allows for immediate technology integration. Funding sources required for infrastructure and professional development only.

Disadvantages: Requires management of different devices and unequal access. Places responsibility on the family to provide technology equipment, not ideal for low-income households.

Conclusion

Educational institutions looking for ways to fund technology have a variety of needs and come from a variety of environments. They all share a strong desire, however, to improve the educational and life prospects of their students by giving them access to technology.

Governmental and private entities, alone, or in partnerships, provide support for educational technology through low-cost financing, grants, and innovative programs around the world. Many of these programs, such as low-cost loans and bundles that can include inexpensive computers, software, and Internet access, benefit families in poorer areas who face multiple challenges to student success. Many of these funding options recognize the critical link between the students and their families and the schools, providing computers and computer training for home and family use, along with school-based technology.

In more technology-enhanced areas, some programs take advantage of the devices that students already own to integrate technology into classroom activities, and some schools have been successful in asking their communities to support additional technology through bonds and levies.

All these options provide a range of opportunities for schools to give students the technology they need to learn, whether it is basic computer education or access to the latest and best available technology.