K-12
BLUEPRINT
A planning resource for personalizing learning

Putting Policy into Practice

Profiles in Education Funding and Savings

A number of programs underway all over the world illustrate various ways that eLearning can be funded, among population groups with varying incomes and resources.

Nigeria: Financing to Push Education to the Next Level

In Nigeria, school children are experiencing computers for the first time, and teachers are improving their ability to use technology for teaching and learning. Two different models of financing for 1:1 eLearning are prevalent in Nigeria: one for government schools and one for private schools.

For government (public) schools, the federal government provides funding from foundations and development agencies, such as the Education Trust Fund (a 2% tax levied on profits of companies registered in Nigeria, and dedicated to education interventions). Funds are given to the local UBE (Universal Basic Education) unit for educational materials. The UBE in turn seeds those funds to the school through the state government, which complements the funds. The school then uses them to buy PCs for the local schools. The equipment is typically rotated across cohorts of students in a school, so that for a school of 1000 students, about 200–300 student education devices might be purchased. The school and local governments rely almost 100% on these intervention funds for technology equipment purchase, but in turn take responsibility for costs associated with teacher training, wireless access setup, etc.

In some of the more affluent private schools, however, parent/ teacher associations have adopted policies enabling each student to own his or her own education PC. Financial institutions finance the PCs as part of grants given to the schools but paid for by the individual parents who in turn pay for the PC as part of tuition. The interest rates are generally high, ranging from 16–22%, and schools get 10%, since it is a bundled program.

To ensure that teachers take a participatory role in 1:1 computing, Nigeria developed a special GAPP program called "Teacher Assisted PC Purchase" or TAPP. This program provides teachers whose salaries average $100–$400 per month with access to higher-end laptops through loans guaranteed by their regional education boards. The first recipients of the TAPP project, over 5000 teachers, are about to receive their new laptops at an overall cost of about $1000 US, including bank charges. A number of companies in Nigeria are also taking up school device purchase as part of their corporate social responsibility programs, which benefits the agencies in turn by helping to grow the local rate of PC adoption.

Russia: The Power of Philanthropy

In another program, in Russia, the education system has enlisted philanthropic donors to help finance eLearning. Oleg Deripaska, the principal owner of Rusal, the worlds' largest aluminum company, and one of the richest people in Russia, decided to invest more than $200M over 5 years to provide personal computing devices to a million underprivileged Russian children. Intel has worked with the Deripaska team to ensure that in addition to the personal computing devices, schools will have sufficient infrastructure (power and connectivity) in place to support a robust 1:1 computing environment.

In a number of former Soviet Union countries, a small number of people have rapidly become very rich. Most of those billionaires have borne a certain degree of social responsibility, sometimes voluntarily, sometimes state-imposed. In any case, the time spent developing relationships with these people pays when they decide to move forward and spend the money on education initiatives. In contrast to the multi-stakeholder, bureaucratic budget planning structures of the government, philanthropic donors can often provide financing very quickly, making eLearning initiatives a reality much sooner.

America: Doing More with Less

In America, Forsyth County Schools in Georgia is doing its best to stretch technology dollars to serve as many students as possible. Most of the district's desktops and notebooks are acquired via a three-year lease program. This ensures a regular refresh cycle.

IT benefits include:

- Standardization, which reduces IT staff requirements
- Forsyth County can perform warranty work in-house.
- uaranteed refresh cycle through leasing

Business benefits are:

- Lower costs for deployment, ongoing maintenance
- Consistency in the user experience
- Growing availability through use of notebooks on mobile carts.

Meanwhile, Philadelphia, Pennsylvania's Academy Charter School emphasizes its commitment not only to help its students develop the skills they need to become productive citizens but also to instill a love of learning and "broaden their world beyond the classroom."

One way the school achieves this mission is through incorporating technology into its curricula. To that end Philadelphia Academy is investing more than $1 million in its technology infrastructure. It is installing interactive whiteboards in its classrooms, for instance, has implemented a computer laboratory in the high school that supports high-end digital-photography courses, and has updated the elementary school lab.

Instructional-technology improvements:

- More manageable desktop environment
- More efficient installation of new software
- Easy initial setup and maintenance: Most problems can be fixed with the click of a mouse

Financial benefits:

- Cost-effective classroom technology solution
- Schools' computer labs now up-to-date; even nontechnical teachers can integrate technology into the classroom easily and effectively
- Supports powerful, engaging coursework.
- Supports differentiation in learning.

Web-based portals, such as ClassLink, can also offer schools significant cost savings. For example, in New York State, Hudson Falls Central School District provides 2,400 students with anytime, anywhere access to personalized content through ClassLink. The district has saved $40,000 by using ClassLink to monitor the use of various applications down to the classroom level. This enables IT staff to discontinue, reduce, or reallocate software not being used.

The move to producing and accessing digital materials in lieu of traditional, hard-copy traditional materials is another cost saving measure. Vail Public Schools in Arizona realized a savings of $42 a student (82 percent savings), having moved from textbooks to digital content, between 2006 and 2009, according to superintendent Calvin Baker in his August 5, 2010, Webinar. At the 2010 Florida Education Technology Conference, Jill Hobson of Forsyth County Schools in Georgia reported a drop in supplemental materials costs per student from $79 to $19 after moving to digital resources.

Blended learning can also help classrooms offer more dynamic education opportunities for less money. Dr. William Hamilton, superintendent of Walled Lake Consolidated Schools in Michigan, set out to reduce costs while maintaining high levels of student achievement. He integrated online coursework within the traditional seat-time course setting. The district experienced 57 percent cost reduction per student per course, going from $900 to $383.

Another way to make more of taxed school budgets is to make use of cloud computing. White Oak Independent School District in Texas has been using the cloud for some time now. When it hit 17 servers, the district eliminated nearly all of them three years ago and rented space across the world for all basic school functions: student-information services (Skyward), assessments, blogging (Edublog), and grade books. Michael Gras, White Oak's technology chief, reports that the district uses open-source resources whenever possible and notes that moving to the cloud has increased productivity and efficiency, reduced power consumption, and shaved tens of thousands of dollars from IT expenses.