We Can’t Leave Our Students Behind in the Digital Revolution

Douglas Engelbart, the 20th century inventor and creator of the computer mouse, believes that “the digital revolution is far more significant than the invention of writing or even of printing.” Not everyone would agree, but there’s no doubt that technology has revolutionized our world, just as writing and printing did in past centuries, and that it is changing the way teachers teach and students learn.

Technology can be a powerful instructional tool, and new innovations provide schools with excellent teaching opportunities. In many of today’s classrooms, students use electronic books, create PowerPoint presentations, and jot down journal reflections on blogs and wikis instead of notebooks. Students can even travel the world on virtual field trips without ever leaving the classroom. Technology also helps principals compile and share data more easily, keep the community informed through school Web sites, and use PDAs to conduct classroom walkthroughs and store vital information that is readily accessible.

Unfortunately, there is a digital divide in our country. In the electronic era, it is important for schools to do what they can to reduce or eliminate this divide. Race and class are still critical factors in determining which children have access to computers and the Internet. According to the National Center for Education Statistics, 54% of White children have access to the Internet at home, compared with just 27% of African Americans and 26% of Hispanics. Schools are able to chip away at these inequities because Internet use increases during the school day.

But providing students with access to the Internet is not enough. All too often, schools lag behind other institutions when it comes to having the most up-to-date technology. Many schools have archaic equipment, little technology assistance, and not enough computers for students. To truly eliminate the divide, schools must be better equipped to provide students with the most current technology, and provide adequate professional development to principals and teachers to integrate technology into the curriculum.

The primary goal of No Child Left Behind’s Enhancing Education Through Technology (EETT) program is to improve academic achievement through the use of technology in elementary schools and secondary schools. It is intended to help ensure that every student is technologically literate by the time they finish eighth grade, regardless of race, ethnicity, gender, family income, geographic location, or disability. The program is also designed to encourage the effective integration of technology resources and systems with teacher training and curriculum development to establish research-based instructional methods.

Educational technology programs must provide a stronger conduit to help schools eliminate the digital divide, yet current funding levels do not meet these goals. In 2002, approximately $700 million was allocated for EETT. Since then, funding has diminished considerably and the current administration is requesting that funds be eliminated altogether.

The demand for technologically astute students is growing. Digital natives—young people who have grown up with computers—have worked with technology more than any other generation. Their future employers expect them to graduate from high school equipped with the skills that will help them compete in a global economy. We must be more diligent about providing them with the best—and only the best—tools to master these skills.

There is still some hesitation when technology and schools are mentioned in the same sentence. Let’s be clear, technology is not meant to replace the three R’s in our schools, or even a fourth R—relationships. Without strong reading and writing skills and the understanding of mathematical functions, there would not be any need for new technology. In addition, the relationships between principals, teachers, students, and parents are what sustain our schools. The key to unlocking student potential and improving student achievement is held by educators, not computers. Only after the foundations for early childhood education and adolescent literacy have been laid can technology effectively complement traditional classroom instruction.

But technology clearly has the potential to transform our schools and create a new generation of well-educated and highly qualified graduates. Increasing technology funding—including the E-rate program—will go a long way in letting all of our nation’s children know that we are serious about their future.