

The New York Times

CyberTimes

Home Sections Contents Search Forums Help

July 6, 1997



Schools Want Laptops for All, But Parents Pick Up the Bill

By PAMELA MENDELS

When Jinelle Angeles, a soon-to-be sixth-grader, completed the term at the Mott Hall School in Harlem last month, she left behind desks, blackboards, chalk and other tools of learning. There was one piece of educational equipment, however, that accompanied her home: a laptop computer.

"I have not seen this kind of full court press on selling technology to schools by the nation's leaders, both political and corporate, before."

Larry Cuban,
Stanford University

"I'm going to play with it and type and teach my aunt how to use it," says Jinelle. "She has a business and wants one."

Jinelle, like about 10,000 other students in 52 private and public schools in nine states across the United States, is part of an experiment in education. The schools are providing students with laptops bought or leased from Toshiba, and loaded with Microsoft software for spreadsheets, word processing, visual presentations and other uses. Educators at these schools are convinced that the laptops will not only better prepare young people for careers in the computer-dependent *workplace* of the 21st century, but will boost educational achievement and ensure that all students, regardless of race, sex or family income, will

have an equal shot at learning about computers.

Still, the program has raised concerns. The laptops are expensive, typically costing about \$1,800, and parents, even in public schools, have been asked to pay or to help pay for them, either through outright purchase or in monthly leasing programs.

Moreover, some educators worry that their computer-enamored peers are over-dazzled by a technology whose academic benefits remain unproved and whose sale is being encouraged by companies that have a major financial interest in seeing widespread computer use in schools.

"There is too much of a romance with technology. The technophiles are riding high now," said Larry Cuban, a Stanford University professor, who specializes in the history of technology and schools. He added: "I have not seen this kind of full

added: "I have not seen this kind of full court press on selling technology to schools by the nation's leaders, both political and corporate, before."

In New York City, two very different kinds of schools are participating in the program, launched as a pilot project last

Images of students with laptops on Toshiba's Education Programs page.

year. Mott Hall School, where a fifth grade class took part in the program, is a public middle school aimed at gifted students who apply to the institution for admission. Located in Harlem, the school serves a population of largely black and Hispanic students, most of whom qualify for free lunches.

Trevor Day School, on the other hand, is one of Manhattan's exclusive private schools, institutions where tuition in upper grades typically runs around \$15,000 a year. In the 1996-97 academic year three grades -- fifth, sixth and ninth -- took part in the laptop project.

Despite the major differences in the schools and the populations they serve, officials at both institutions listed similar reasons for participating in the program. One is a conviction that computers have become such an integral part of modern life that students who lack ease with the technology will suffer not only in the *workplace* but in colleges that increasingly are demanding that students own a computer. They also argue that computer use is so unevenly spread in the population -- even among the affluent -- that a generation of technology haves and have-nots could emerge unless someone steps in.

Anthony S. Amato, superintendent of Community School District 6, which oversees Mott Hall, says that at first he thought the program would be a ludicrous undertaking for his area. Chief among his concerns was safety. He feared that students toting laptops back and forth between home and school in *crime*-pocked neighborhoods would be choice prey for muggers.

But Amato says he eventually decided that it was precisely because of concerns like *crime* that poor children are often denied educational equipment they deserve -- equipment that superior schools in the suburbs offer their students. Amato says he also believed that school-provided access to computers was particularly important to his students because unlike their counterparts from wealthier backgrounds, few came from homes with computers. There was an additional advantage to a portable computer: Perhaps not just his students but their families would start learning computer skills.

Today in CyberTimes

ARTICLES AND COLUMNS

Schools Want
Laptops for All, But
Parents Pick Up the
Bill
By Pamela Mendels

Microsoft's New
Millionaires Fuel a
New Era in
Philanthropy
By Carey Goldberg

IBM Display Shows

John H. Dexter, head of school at Trevor Day, was also concerned about equity, but of a different sort: Boys continued to dominate use of computers at the school, and girls continued to shy away from the technology. Dexter says he concluded that the only way to solve the problem was to provide one computer for each student. Laptops, therefore, began to make sense.

Dexter and others also say that the machines have provided some real educational benefits. One is that computers free students from having to perform certain tedious tasks, thus enabling them to focus more on thinking and problem-solving. Janice M. Gordon, the fifth-grade homeroom and English teacher at Mott Hall, says that rewriting is so much easier on a computer than on paper that students can devote more time to essentials like sentence construction and less time to the

IBM Display Shows
Gains and Limits of
Flat Panels

By Steve Ditlea

Ruminations on
Bitten Ears and
Severed Body Parts

By Lisa Napoli

TODAY'S SECTION
FRONT

SEVEN-DAY INDEX

CYBERTIMES
FORUMS

CYBERTIMES
NAVIGATOR

essentials like sentence construction and less time to the mechanics of writing out the next draft.

Dexter, who teaches a fifth grade mathematics course, discovered a similar phenomenon in his class. "The students think through the problem emancipated from the weight of computation," he said.

One of the big questions about the laptop program is whether Dexter's and Gordon's observations about the educational pluses of laptops can be backed up by wide-ranging research. Toshiba and Microsoft are now financing a third-party two-year study of the program to evaluate its academic benefits, said Gregory Cygan of Toshiba America Information Systems Inc. in Irvine, Calif. In addition, he said, some of the schools participating in the project are conducting studies of their own.

Cygan also insists that companies are not pushing the technology on schools.

"Educators are smart enough to know that they don't want corporate America coming in and telling them what's appropriate in schools," he said. He also notes that the laptops are being sold at a discount. At retail they would be priced at \$2,300 to \$2,400.

Nonetheless, the equipment costs a lot more than two pencils and a notebook. Dexter concedes that some parents at his school, skeptical of both the cost and educational value of laptops, initially balked at being required to write out checks approaching \$2,000 for gear expected to be outdated in about four years, especially if there were laptop-requiring siblings in the family. Eventually, though, he said, parents saw value in the project, which will be expanded to other classes this fall.

At Mott Hall, Amato knew he could not expect parents from one of the poorer sections of New York City to pay for the equipment, but a financially strapped school system couldn't shoulder the entire cost either. So Amato devised an unusual cost-sharing plan: Parents are splitting the expense with the school district. Each partner pays \$35 a month for a package that includes the equipment, insurance and servicing. At the end of the term, the families can buy the laptop for \$1.

Even so, Amato was convinced that parents would object. "Nowhere in public schooling had we even looked at the issue of a parent paying for part of the education of their children," he said. "I thought that would be the item that would stop the program."

Amato was surprised, therefore, at what turned out to be the parents' enthusiastic response to the proposal. The program has proved so successful -- no incidents of theft or negligent damage, only one late payment -- that Amato plans to expand it this fall to other schools in the district and to children at a variety of levels of educational achievement. And parents who cannot afford the \$35 can apply to a newly established foundation for help, Amato said.

The Mott Hall parents' reaction may have been rooted in part in self interest. Many family members participated in laptop training sessions the school district held for the students' relatives and were themselves interested in

learning about computers.

Gordon, the homeroom teacher, describes a mother who works in a factory and is hoping that the laptop will help her step up to an office job. "She sees the laptop not just as an opportunity for her son, but herself," Gordon said.

Related Sites

Following are links to the external Web sites mentioned in this article. These sites are not part of The New York Times on the Web, and The Times has no control over their content or availability. When you have finished visiting any of these sites, you will be able to return to this page by clicking on your Web browser's "Back" button or icon until this page reappears.

- [Toshiba Notebooks for Schools](#)
- [Microsoft Anytime Anywhere Learning](#)
- [New York City Public Schools](#)
- [Trevor Day School laptop project](#)

Pamela Mendels at mendels@nytimes.com welcomes your comments and suggestions.

[Home](#) | [Sections](#) | [Contents](#) | [Search](#) | [Forums](#) | [Help](#)

Copyright 1997 The New York Times Company

Archive *Washington* BUSINESS JOURNAL

[Search](#) | [Index of Business Journal Back Issues](#) | [May 19, 1997 Index](#)

May 19, 1997

Focus: Information Technology

Companies join drive to get D.C. students wired

Beth Gilbert Special To The Washington Business Journal

Give a man a fish and he'll eat for a day. Teach a man to fish and he'll eat for a lifetime. This adage rings true as providers of information technology are making an effort to connect students of the District of Columbia's public schools to the information superhighway and give them a chance at a future.

Among those students, companies should find badly needed high-tech employees to fill jobs that now go empty because qualified candidates are so scarce.

Part of the struggle to bring students into the Information Age is NetDay, a national grass-roots volunteer effort to wire schools so they can network their computers and connect them to the Internet. Labor and materials come from volunteers and support from companies, unions, parents, teachers, students and school employees. Through funding from the private sector and local, nonprofit affiliates such as Tech Corps -- D.C., NetDay channels donations from companies to its 36 local Tech Corps affiliate. In D.C., this has resulted in the wiring of more than 50 of the District's 150 schools.

During an April 4 NetDay event, Vice President Al Gore announced a \$1 million initiative for the District, part of a public/private partnership that includes America Online, Bell Atlantic, AMP Inc., Sprint, Cisco Systems and Microsoft to name just a few.

"By working together, we can make sure that all children in the nation's capital have the tools to make the most of their lives," said Gore during a visit to Turner Elementary School at 3264 Stanton Road in Southeast D.C.

Of D.C.'s approximately 150 public schools, two-thirds are wired. But only about half of the wired schools have full access to the Internet.

"Wiring is the easiest and cheapest part of this process, but it's only the first step," said Mark Root, project manager for Tech Corps -- D.C.

Connecting a school to the Internet is the second step, and this can cost \$5,000. Supplying enough computers is the third element, and training the teachers and students is the fourth.

"Every school has access to the Internet," said Joe Renard, specialist for Internet support services with the Management of Information Services department of D.C. Public Schools. Renard explained that people confuse access to the text-based information on the Internet with full access, which includes the World Wide Web that provides graphics and sound.

"This is where Tech Corps steps in," he said.

Tech Corps

Net Day channels funds to Tech Corps -- D.C., whose mission is to provide students access to the most technologically advanced education possible so they will have the skills needed to compete in the work force of tomorrow. Tech Corps uses the money to finish wiring and connecting all the classrooms in a school and completing a school's connection to the Internet.

Bell Atlantic is by far Tech Corps' largest local contributor. It has donated 150 high-speed Pentium computers valued at approximately \$280,000 -- one for each principal in the D.C. public schools -- so the principals can take a hands-on role in promoting the use of the Internet and multimedia technology. "Bell Atlantic tries to do more than simply write a check. It's equally important to provide technical assistance and ongoing support that will bring the benefits of telecommunication technology to the classroom," said Marie Johns, vice president of public affairs for Bell Atlantic -- Washington, D.C. Inc.

In the past two years the company has contributed close to half a million dollars worth of hardware, wiring and technical assistance. It has also committed \$3 million over the next three years to upgrade the technological infrastructure of D.C.'s public schools and libraries.

Through its "Connected Learning Community" program, Microsoft is working with schools in the nation's capital to help ensure that all students have equal access to computers and information on line. Microsoft is contributing \$40,000 in cash and software and has partnered with Future Enterprises Inc. and Knowlogy Corp., D.C. based information technology training companies, to provide an additional \$52,000 in technical training for D.C. teachers.

"By providing all kids with computer training and access to information, we hope to level the playing field in this land of opportunity," said Christine Zmuda, a senior field marketing specialist in Microsoft's D.C. office.

The companies involved in the \$1 million effort announced by Gore are donating an estimated \$750,000 in cash, products and services. The federal government also plans to donate more than 1,000 Internet-capable surplus computers to D.C. schools.

Future work force

The D.C. school system thinks the money will be well-spent.

"It's in the interest of the business community to contribute to the education of their future work force," said Loretta Hardge, director of public affairs for D.C. Public Schools.

"I've heard people refer to D.C. as the Silicon Valley of the East. There's unlimited potential but no connection to link the need for a high-tech computer work force with the untapped resources in our school system," said Root.

"Because of the fiscally strapped system, we are focusing our efforts on D.C. public schools and believe private intervention, especially in the realm of information technology, necessary to keep D.C. students prepared and competitive with those in surrounding jurisdictions," said Shibani Subramanya of Future Enterprises. "This is an opportunity for Future Enterprises to train the teachers who then leverage this information by passing it on to the students -- the work force of tomorrow."

One problem Tech Corps has is that all the schools are at different levels of "connectivity" because some companies have preferred to sponsor specific schools, circumventing the organization's mission of working in conjunction with the D.C. school board to simplify and expedite access for all the schools.

Careful not to bemoan the estimated \$1 million in donations, Root said, "The donations are great, but what we really need is cash to buy the wiring and supplies.

"Like any other business, we work on economies of scale -- it's easier and cheaper to purchase the equipment all at once," he added.

"It's wonderfully frustrating that everyone wants to help, but harnessing this good will is a monumental effort among 150 schools. But eventually, I see a world-class education system," said Hardge.

Installing the systems is a monumental task, and maintaining them has put a strain on the people who support the 157 D.C. public school buildings. There are fewer than 10 people on the management information services division staff, and they must handle every technical glitch from printer malfunctions to schoolwide networking problems.

"The entire NetDay concept is to provide manpower and labor, and the Tech Corps volunteers have saved us thousands of dollars," said Ulysses Keyes, director of the division for the D.C. Public Schools.

End results

Other schools are seeing progress.

"All the classrooms and offices are wired, although the connections have not been made," said Daisy Smith, who is wearing two hats as assistant principal and technology coordinator at Turner Elementary. "Bell Atlantic and Tech Corps are our technical support partners, and they have promised us Internet access by the end of the school year."

The Spanish teacher at Roper Middle School in Northeast, which

houses the \$300,000 Ron Brown Computer Lab, is also doing double duty. Due to the financial deficits within the public school system, the teacher trains staff and maintains the computer systems in the lab, said Principal Sandra Newsome.

The Foundation of Educational Innovation, a nonprofit corporation founded in 1993 to energize education through the use of emerging technologies and communications networks received support to build the center from the U.S. Department of Commerce, Giant Food, Bell Atlantic, Eastman Kodak, Novell, the Jason Foundation for Education, the Ventana Corp. at the University of Arizona and the D.C. Public Schools.

Bennie Adams, principal of Hine Junior High School at 7th Street and Pennsylvania Avenue SE, said the support of Tech Corps has been invaluable and that he could not have wired his school without their help. The school has approximately 30 computers -- one in every classroom -- wired to the Internet.

"Help from the Department of Transportation and private businesses like Hughes Corporation and Nortel have been instrumental in upgrading our technology systems for classroom instruction," said Adams.

Adams likes the impact computer access has made on his students.

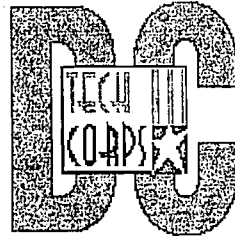
"We have approximately 300 computers in the classrooms. This access has made our students self-directed problem solvers. They're not afraid of technology, and, when they graduate, they'll be ready to step into many high-tech positions," he said.

Smith is hopeful that her teachers will have training and the students will have access to the Internet when they return to school in the fall.

"The kids in our school come almost entirely from public housing, and access to this information could make the difference in their education by linking them with the rest of the world and motivating them by seeing what the rest of the world has to offer," she said.

Beth Gilbert is a writer based in Washington.

© 1997, *Washington Business Journal*



Message View

To: Training Team Members

From: Belford Lawson, Team Coordinator

Date: 6/4/97

Subject: ACT NOW: Specific Tasks For Our Team

The opportunity has finally come for this team to do some actual, hands-on work that will--I believe--confer real, actual benefits for certain DCPS schools and that will give each team member (who has the time and interest to be active this summer and fall) the chance to learn-- about teacher training--by DOING. At the May 21, 1997 of the team, plans were made for the following 1997 TECH CORPS-DC TEACHER TRAINING TEAM PROGRAM. The Program will involve as many members of the team as are willing to volunteer to be active. The plan will be carried out in two stages. STAGE ONE: Summer '97, during which each member (a) will contact at least one D.C. Public school and interview all those teachers who are interested in receiving training in the Fall of 1997, and (b) will take the information obtained and collaborate in preparing a series of teacher training classes for that school during the fall semester 1997; and STAGE TWO: Beginning in September 1997, each Training Team member, acting as a teacher, will offer a teacher-training course in a D.C. Public School. Here are the specific steps to take if you want to be involved. (1) CHECK THE LIST AND SELECT A SCHOOL. Select a school whose teacher training needs you will personally diagnose by interviewing all interested teachers. To pick a school, go to the TCDC home page (<http://www.tcdc.org>); go to the Teacher Training Team page, and select "View"--for view a message sent to the Team. There, in a message sent on 6/2/97 by TCDC Board of Directors you will find a list of 28 schools. The list was compiled based on the fact that each school on the list has been wired for some kind of computer service. (2) PICK A SECOND SCHOOL. Pick an alternate (second choice) school. The reason for picking an alternate is that several people may pick the same school, creating two problems; (a) conflict about who gets to work with which school, and (b) neglect of certain schools that are more needful (of training than most others. (3) NOTIFY ME. Send your selections to me ASAP at BelVL@aol.com. (4) WATCH YOUR E-MAIL. Monitor your e-mail for the school to which you will be assigned this summer and for the date and time of our next meeting. At our next meeting, which I hope will be held--next week or shortly thereafter--at one of the schools on the list of 28, I will hand out a Guide For Interviewing Teachers and Questionnaire so that everyone will have some basic ideas about how to obtain information from teachers interested in training. (5) ACT FAST! Get this done as soon as possible BECAUSE--the school year is over on June 20, and after that it will be very difficult to locate teachers. (6) REMEMBER THAT THE COURSE YOU TEACH NEXT FALL PROBABLY WILL INVOLVE A SPECIFIC SUBJECT MATTER AREA, E.G. HISTORY, MATH, ART, A LANGUAGE, ETC. In the very beginning, some teachers will need a course in how to use a computer. But eventually, since the basic purpose of our Team is about teaching teachers to use a computer to teach a specific subject matter, the focus will shift exclusively to using a computer to teach a specific subject matter. (7) REMEMBER THAT THE SCHOOL THAT YOU DIAGNOSE THIS SUMMER MAY NOT BE THE SCHOOL WHERE YOU TEACH NEXT FALL. Assume your strongest academic field is geography and that you know nothing about art. What happens if, in the school whose needs you diagnose this summer, the only teachers who express interest in a teacher training course are art teachers? In the Fall, you will be asked to teach in a school where the geography teachers need training in teaching with a computer. A team member with a background in art will be asked to teach the art teachers in the school only art teachers in the school where you will have worked in Summer '97. (If you like, let me know what academic field is your preferred area for teaching. You won't be locked in to your initial preference). Let's work fast and do the best we can. (1) PwPlan was made to involve the whole training team in assisting the D.C. School system. The steps in the P Each

Technology in
classroom
nothing
major
new

Opportunity for Presidential Education Initiative

Leaders in the business and education communities, including John Hendricks at Discovery Communications, Alan Spoon at The Washington Post Company, Anne Bryant at National School Boards Association and Don Cameron at NEA, have been working for the past three years through the CEO Forum on Education & Technology to address tech issues facing today's students and teachers.

Thanks to the leadership of the Administration and others, great strides have been made in some areas -- such as wiring schools with Internet connections (35% in 1994 to 95% in 1999).

However, there are two immediate issues that will affect students' ability to succeed:

- 1) Two million teachers will enter K-12 schools in the next decade without technology training -- completely unprepared to teach technology skills in the classroom, or even use technology to help students learn. While there is great momentum for change outside of Colleges of Education, these institutions are graduating 200,000 teachers per year with little or no technology training, and show no sign of making change.
- 2) Despite greater presence of technology in the classroom, little progress has been made in using technology to enable learning.

We believe real change requires leadership from the President and the participation of the education and business communities. Don Baer at Discovery, Pat Butler at the Post, Ken Kay, Tony Podesta and others have together come up with a set of ideas that could make up a Presidential education initiative for 2000:

- 1) Call for White House summit in April of college of education deans and university presidents, business leaders, education leaders to collaborate on improving education technology.
- 2) Establishment of Presidential commission of college of education deans and university presidents, business leaders, and education leaders to make recommendations and benchmarks for change by 2002.
- 3) Announce these initiatives in the State of the Union address
- 4) As a curtain-raiser to the State of Union announcement, the President could announce his initiative at the Dept. of Education's Jan 10th "National Conference on Teacher Quality" with Sec. Riley and CEO's of leading technology companies and education organizations.

Key Indicators:

- 46 of 54 jobs identified by the Dept. of Labor with the highest growth potential require technological fluency.
- 60 percent of the jobs available at the beginning of the next century will require skills held by only 20 percent of the current workforce.
- K-12 schools will hire 2 million new teachers in the next decade.
- Few teacher training institutions provide technology education programs in their curriculum.

Initiative ideas:

White House Summit on 21st Century Teachers

The President could convene leaders from the high-tech community, K-12 educators and college of education deans, presidents and chancellors, to address the crisis facing today's teachers and tomorrow's workforce. The summit could serve to solicit commitments from all parties to collaborate on means to jointly address the issue and devote resources to resolutions. Similarly, a Presidentially-appointed commission could bring these same parties together for the same purpose.

Presidential Commission on 21st Century Teachers

National Conference on Teacher Quality, sponsored by the Department of Education.
(Mayflower Hotel, Washington, DC)

Description: This conference will be attended by 800 deans from colleges of education and arts & sciences, university presidents and chancellors, K-12 school administrators and superintendents.

It will feature a joint presentation by Secretary Riley and CEO's from leading tech companies and education leaders on the issue of preparing teachers for the 21st Century and on a new self-assessment tool help colleges of education chart a new course.

The President could use this opportunity to highlight the challenge facing today's teachers and tomorrow's workers and announce a White House summit or presidential commission (or save announcement for State of the Union). The summit or commission would serve to bring educators, government and business together to develop a joint approach to preparing teachers with technology skills so our students will be proficient in the tech workforce of the next century.

Date: Friday, December 17, 1999
To: Tim Freedman
From: Tony Podesta, Don Baer
Re: Technology and Education initiative

Don Baer and I spoke with Maria Echaveste this afternoon about our ideas for a new initiative on technology and education. The details are attached.

If you have additional questions please call us this weekend:

Tony cell phone: 202-256-4793
202-271-1012

Don cell phone: 202-256-7709