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**Subseries:**

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**OA/ID Number:** 10986

**FolderID:**

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**Folder Title:**

2-15-96 Technology Literacy N.J. [1]

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**PRESIDENT WILLIAM J. CLINTON  
REMARKS ON THE  
TECHNOLOGY LITERACY CHALLENGE  
UNION CITY, NEW JERSEY  
FEBRUARY 15, 1996**

[VP Gore; Mayor Walter; Tom Highton,  
Superintendent of the Union City School District;  
Senator Lautenberg; Congressman Menendez; Bob  
Fazio, Principal of Christopher Columbus School; Jim  
Cullen, Vice Chairman of Bell Atlantic; parents,  
teachers, students of the Christopher Columbus School,  
and citizens of Union City. I'd also like to say hello  
to Education Secretary Dick Riley and Congressman  
Bob Torricelli, as well as the students from 65 schools  
in 3 counties who are joining us via the information  
superhighway]

It's great to be back here in New Jersey and in Union City. I came here today because this city and your school system are undergoing a remarkable transformation that the rest of the country needs to know about. Let me begin by acknowledging one of the original architects of this transformation -- your former mayor and current Congressman, Bob Menendez. Bob is a true native son of Union City. He is a product of your school system and a tireless advocate for quality education. It is fitting that the second largest Cuban-American community in America have a representative as fine as Bob Menendez.

It was his sponsorship of the New Jersey Telecommunications Act in 1991 that set the stage for the remarkable turnaround we are witnessing today. I'll talk more about that later.

The rebirth of Union City and your schools reminds us that we live in an age of great possibility. More Americans, from all walks of life, will have more chances to build the future of their dreams than ever before. New technologies are opening remarkable new vistas of prosperity. A growing global marketplace is putting a premium on American ingenuity and skill.

But we also know that this new era is producing new pressures and stiff challenges for our people.

While more of our citizens are living better, too many of them are working harder just to keep up. And they justifiably wonder if they and their children will be winners in the new age, or if they will be left behind.

After what I have seen today, I can tell you -- Union City will not be left behind. It will lead the way.

In my State of the Union, I outlined our seven biggest challenges for the future -- challenges we must meet if we are to enable our people to make the most of their own lives.

Those challenges are: strengthening our families and giving our children better childhoods; renewing our schools; enhancing the security of working families through access to health care, lifetime education and training and secure pensions; fighting crime and gangs and drugs until crime is the exception, not the rule, in America again; protecting our environment; maintaining our world leadership for peace and freedom; and reforming and reinventing our government so that it works better for the American people.

How will we meet these challenges? The era of big government is over. But, we must not go back to an era when people were left to fend for themselves.

We cannot solve the complex problems of the modern world unless we work together in the genuine spirit of community -- together, teamwork, each of us doing our part. Businesses building the communities they serve. Schools providing the highest quality education, and recognizing that they cannot walk away from teaching values. Religious institutions bringing their teachings to life through service to the community.

And government at every level helping, too -- not by trying to do more than it should, but by giving every American the tools so they can make the most of their own lives.

That means students like you and parents like you who are taking advantage of the opportunities provided by the schools here in Union City.

That is how America will meet its great challenges in the Age of Possibility. And there is no better example of what I'm talking about than what you are doing right here in the Union City.

Today I want to talk to you about how we will meet the challenge of educating our young people.

Education is the way we give every child a future, the chance to live the American dream. That's why, in my State of the Union Address, I said we must renew our schools, demand high standards, throw the doors of college open wider than ever before.

My administration has already put in place a comprehensive strategy to renew education. We have expanded Head Start preschool; we have enacted Goals 2000, a grassroots effort to meet national standards; we have created a network of school-to-work programs to help high-school graduates get better jobs, even if they do not go on to college right away.

I have challenged schools to provide character education, to teach good values and good citizenship. I have challenged states to give all parents the right to choose which public schools their children will attend. And we should let teachers form new schools with a charter they can keep only if they do a good job.

And I am determined that college be more available than ever before. We expanded Pell Grant scholarships for deserving students; we created a new direct lending program that makes it easier to pay back student loans; our AmeriCorps program is giving 25,000 young people the chance to serve their community while helping pay for college. Here, too, we must do more.

I have proposed that every family be able to deduct \$10,000 of college tuition; I have proposed a \$1000 scholarship for the top 5% of every high school graduating class; and I have proposed that work study be expanded so that 1 million young people can work their way through college.

School standards and college opportunity are critical. But we must recognize that as our country enters the era of the supercomputer and the internet, our schools must move forward as well. We must modernize our public schools.

A hundred years ago, America made a commitment to provide its children the skills to navigate the move from farm to factory. With universal public schooling, we wiped out widespread illiteracy while preparing every child for the world of steel, electricity and internal combustion.

Now, we are moving into an economy built on information and intense global competition. We know that in the era to come, America's prosperity will depend on its technological edge. We know that the key to expanding opportunity is to give every child the skills to master the information age.

And we all know that it's no longer enough to teach our children reading, writing and 'rithmetic. Education in the Age of Possibility will require the kind of computer literacy that my generation could not even imagine. The Vice-President was in Philadelphia yesterday to celebrate the birthday of the first computer, called ENIAC [ee-nee-ack], which was born the same year I was. When I was the age of the students here, we were amazed by those technological breakthroughs -- technicolor and stereo. Color television, cellular telephones, and computers that fit on a desk were the stuff of science fiction.

For our young people today, it's a far different world. They interact with computers at the supermarket check-out counter, in video arcades, and in their homes. But one of the few rooms you can enter in America today where you can't find a computer . . . is a classroom. And that's wrong.

That is why I have issued a challenge to our nation, and called for a national partnership to ensure that every young person in America has access to the future. When I looked around the country to find a community that is leading the way, I didn't have to look far. I found the best model right here in Union City.

You have taken a school system that was once on the brink of state takeover and you have rescued it.

And the way you did this is the way we can meet all our challenges -- everyone working together, everyone doing their part. The Board of Education voted to modernize. Bell Atlantic linked up the schools. The State of New Jersey helped with resources. Teachers and experts wrote a new curriculum. Parents have come in for weekend training, taught by a teacher and her students, and now work with their children on computers at home. And the students have seized this opportunity and taken responsibility.

You know what has happened here. With computers in the classroom and computers at home, all linked together, homework is being done in a new way . . . classroom lessons take on a new life . . . parents and teachers keep in touch by e-mail . . . test scores have skyrocketed while truancy and drop-out rates have plummeted.

Technology in the classroom is not just a fancy toy. It is dramatically improving the critical thinking and problem solving skills of students, all over the country. Over 130 recent academic studies found that the use of technology to support instruction led to higher achievement in language, art, math, social studies and science.

So, now we have dramatic proof of the power of technology to expand opportunity for our young people. We must harness that power and spread it throughout this country.

In the State of the Union, I called on all Americans to join a national mission to make every child technologically literate. We must connect every classroom and library in the country by the dawn of the 21st century, with quality computers, trained teachers, and creative software. We must do everywhere what you have done here.

We are already making real progress. We are bringing companies and volunteers together in California to wire 20% of the state's schools this year alone. And we insisted that the Telecommunications Bill which I signed last week require companies to provide a discount for connecting classrooms and libraries. And as we all do our part, our national government must continue to do its part.

Today, I am announcing a major initiative to energize our people as we work together to fulfill this mission. **I am proposing a \$2 billion Technology Literacy Challenge that will put the future at the fingertips of every child in every classroom in America.**

When we do this, we will open new horizons of opportunity for our children and our future.

This proposal is part of the balanced budget I submitted to Congress. Let me be clear: We must balance the budget, so that we do not leave our children a burden of debt. But I am determined that even as spending is cut dramatically, the education of our children will not suffer. The funding for this new initiative will mean we have to cut spending elsewhere -- but nothing is more important than preparing our children to compete and win in the new global economy.

Computers in every classroom. Students eager to learn. Parents able to help them. People reaching out to one another. We can do all this -- if we do it together. If we all do our part, if we are as dedicated to creating opportunity for our children as our parents were to giving us opportunity, then the Age of Possibility will belong to all of our people.

Thank you and God bless you all.

**REMARKS BY PRESIDENT WILLIAM JEFFERSON  
CLINTON  
THE TECHNOLOGY LITERACY CHALLENGE  
UNION CITY, NEW JERSEY  
FEBRUARY 15, 1996**

[Mayor Walter; Tom Highton, Superintendent of the Union City School District; Senator Lautenberg; Congressman Menendez; Vice President Gore; Bob Fazio, Principal of Christopher Columbus School; Jim Cullen, Vice President of Bell Atlantic; parents, teachers, students of the Christopher Columbus School, and citizens of Union City. I'd also like to say hello to Education Secretary Dick Riley and Congressman Bob Torricelli, as well as the students from 65 schools in 3 counties who are joining us via the information superhighway]

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But we also know that this new era is producing new pressures and stiff challenges for our people. While more of our citizens are living better, too many of them are working harder just to keep up. And they justifiably wonder if they and their children will be winners in the new age, or if they will be left behind. After what I have seen today, I can tell you -- Union City will not be left behind.

In my State of the Union, I outlined our seven biggest challenges for the future -- challenges we must meet if we are to enable our people to make the most of their own lives. Those challenges are: strengthening our families and giving our children better childhoods; enhancing the security of working families through access to health care, lifetime education and training and secure pensions; fighting crime and gangs and drugs until crime is the exception, not the rule, in America again; protecting our environment; maintaining our world leadership for peace and freedom; continuing to reform and reinvent our government so that it works better for the American people; and finally, providing better education for all our

citizens.

How are we going to meet these challenges? The era of big government is over. But, we must not go back to an era when people were left to fend for themselves.

We cannot solve the complex problems of the modern world unless we work together in the genuine spirit of community -- together, teamwork, each of us doing our part. Businesses building the communities they serve. Schools providing the highest quality education, and recognizing that they cannot walk away from teaching values. Religious institutions bringing the ~~gospel~~ to life through service to the community.

And government at every level helping, too -- not by trying to do more than it should, but by leading, creating opportunity and demanding responsibility and helping every Americans have what they need to make the most of their own lives. That means students like you and parents like you who take <sup>advantage</sup> of the opportunities provided by the schools here in Union City. *care*

That is how America will meet its great challenges in the era to come. And there is no better example of what I'm talking about than what you are doing right here in the Union City.

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Thank you and God bless you all.

**REMARKS BY PRESIDENT WILLIAM JEFFERSON CLINTON  
THE TECHNOLOGY LITERACY CHALLENGE  
UNION CITY, NEW JERSEY  
FEBRUARY 15, 1996**

[Senator Lautenberg; Congressman Menendez; Bob Fazio, Principal of Christopher Columbus School; Jim Cullen, Vice President of Bell Atlantic; parents, teachers, students of both the Christopher Columbus School and the 36 schools in 3 counties that are joining us via the magic of video technology; and citizens of Union City]

It's great to be back here in New Jersey and in Union City. I came here today because this city and your school system are undergoing a remarkable transformation that the rest of the country needs to know about. Let me begin by acknowledging one of the original architects of this transformation -- your former mayor and current Congressman, Bob Menendez. Bob is a true native son of Union City. He is a product of your school system and a tireless advocate for quality education. It was his sponsorship of the New Jersey Telecommunications Act in 1991 that set the stage for the remarkable turnaround we are now seeing. I'll talk more about that later.

The revitalization of Union City and your schools reminds us that we live in an age of great possibility. More Americans, from all walks of life, will have more chances to build the future of their dreams than ever before. But this new era is also producing new pressures and new challenges. While more of our citizens are living better, too many of them are working harder just to keep up, and they justifiably wonder if they will be winners, or if they will be left behind. After what I've seen today, I can tell you, Union City is not going to be left behind.

Our challenge in this time of change is to preserve the American Dream for all citizens who are willing to work for it, to maintain our cherished values and to assert our leadership for peace and freedom -- at home and around the world.

America is strong and growing stronger. We have the lowest combined rate of unemployment and inflation in 27 years. Homeownership is at a 15-year high. Our auto industry leads the world again. In the last three years, we have created over 7.7 million new jobs -- 700,000 of them in the construction industry alone. For three years in a row our people have set successive records for the formation of new businesses.

And New Jersey is also on the move. Unemployment here is down. In the last 35 months, 140,700 new jobs have been created. New home building has increased 4 percent per year in this state, after falling 17 percent in the 4 years before I took office. And consumer confidence has increased 16 percent.

Around the world, from the Middle East to Bosnia, America is leading the way toward peace and freedom. And perhaps, most important, Americans are coming together around our basic values of family, work and community. The crime rate, the welfare rate,

the food stamp rate, the poverty rate, the teen pregnancy rate are all down.

And we've done all this while creating a smaller, more efficient national government. The national government is now 205,000 employees smaller than it was the day I took office. It's the smallest since 1965. And we're getting rid of 16,000 of the 86,000 pages of federal regulations. These are remarkable accomplishments.

But, we have new challenges, even as we become stronger. In my State of the Union, I outlined our seven biggest challenges for the future -- challenges we must meet if we are to make the American Dream available to all our people and unite our country around our shared values. Those challenges are: strengthening our families and giving our children better childhoods; enhancing the security of working families through access to health care, lifetime education and training and secure pensions; fighting crime and gangs and drugs until crime is the exception, not the rule, in America again; protecting our environment, maintaining our world leadership for peace and freedom, continuing to reform and reinvent our government so that it works better for the American people, and finally, providing better education for all our citizens. And that's what I want to talk with you about today.

We all know that it's no longer enough to teach our children reading, writing and arithmetic. Education in the Age of Possibility will require the kind of computer literacy that my generation only dreamed about. That's why I have called for a national partnership to ensure that every young person in America has access to the future. I have proposed that every classroom in America be connected to the information superhighway, with computers and good software and well-trained teachers by the year 2000. When I looked around the country to find a community that is leading the way, I didn't have to look far. I found the best model right here in Union City.

Your model is based on teamwork. As I also said in the State of the Union, the era of big government is over. But, we must not go back to an era when people were left to fend for themselves. We cannot solve the complex problems of the modern world unless we work together in the genuine spirit of community -- everybody doing his or her part to enable all of us to make the most of our lives: the federal government, state and local governments, the private sector, families. Again, there is no better example of what I'm talking about than what you are doing right here in Union City.

You have taken a school system that was once on the brink of state takeover and rescued it through a public-private partnership involving the Bell Atlantic Corporation, the Union City Board of Education, and the Education Development Center. A few minutes ago, just across the street at Christopher Columbus School, I got a first-hand look at the difference they are making.

Beginning in September of 1993, computers were supplied at the Christopher Columbus School and in the homes of the school's 135 seventh-grade students and their teachers. Since then, an interactive television network linking classrooms at Columbus to

schools in Bergen, Hudson and Morris counties has been installed. This technology has resulted in an extraordinary improvement in the lives of students at Columbus. Since going on-line, student test scores have skyrocketed while truancy and drop-out rates have plummeted. And we are seeing similar results all over the country.

New York City's Computer Pilot Program showed gains of 80 percent for reading and 90 percent for math when computers were used to assist in the learning process.

A 1995 review of more than 130 recent academic studies found that the use of technology to support instruction improved student achievement in language, art, math, social studies and science.

And a Congressionally mandated review of 47 comparisons of multimedia instruction with more conventional approaches found time savings of 30 percent, improved achievement and cost savings of 30 to 40 percent, and a direct positive link between the amount of interactivity provided and instructional effectiveness.

So, we now have dramatic proof of the power of technology to expand opportunity for our young people. We must harness that power and spread it throughout this country.

That's why today, I am announcing a new Technology Literacy Challenge. I am proposing a \$2 billion challenge fund to challenge every state to put the future at the fingertips of every child in every classroom in America. The way we will do this is through the kind of partnership that is working here in Union City: state and local governments, the private sector, and local communities all working together to achieve our goal of advancing the technological literacy of American students.

We want to accomplish four fundamental things: one, provide access to modern computers for all teachers and students; two, provide every teacher the training and support they need to help students learn through computers and the information highway; three, develop effective and engaging software and on-line learning resources for the full curriculum; and four, connect every school and classroom to the information superhighway. When we do this, we will open new horizons of opportunity for our children and our future. And we can do this while we balance the budget.

Let me be clear: I made a commitment in my balanced budget plan that even as spending was being cut dramatically, the education of our children would not suffer. The funding for this initiative may mean we have to cut spending elsewhere -- but nothing is more important than preparing our children to compete and win in the new global economy.

A hundred years ago, the challenge America faced in education was to prepare our young people to take jobs in our factories. The kind of literacy that required involved a proficiency with pen and pencil and paper. And our schools did a very good job at that. But today, the challenge is different. Our children now need computer literacy if they are

going to succeed in the 21st century.

I believe the national government has a responsibility to work with schools and communities meet this challenge. The Technology Literacy Challenge will support state and local efforts to meet the literacy challenges of the Age of Possibility. The future will be ours, but only if we work together to ensure everyone a chance at the American Dream.

Thank you and God bless you all.

February 12, 1996

MEMORANDUM FOR THE PRESIDENT

FROM: Laura Tyson/Gene Sperling/Paul Dimond (NEC)  
Carol Rasco/Mike Schmidt (DPC)  
Greg Simon (OVP)

CC: Leon Panetta, Alice Rivlin, Jack Gibbons

SUBJECT: The Educational Technology Challenge

**I. ACTION-FORCING EVENT.**

This Thursday, you and the Vice President will be travelling to a school in Union City, New Jersey, to announce your proposal for the "Educational Technology Challenge" to implement all four components of your vision as announced in the State of the Union, where you asked "Congress to support this education technology initiative so that we can make sure this national partnership succeeds."

We are choosing to announce the details of the initiative on Thursday because it is close enough to the State of the Union to show the tight follow-up; it is right in between the primaries so that there is less chance that political news will block out a substantive proposal, and finally, it provides us a chance to highlight the Union City story -- one the best technology success stories in the nation. Our goal with this event is to see if the actual initiative itself can breakthrough.

**II. FEDERAL COMPONENT FOR YOUR NATIONAL CHALLENGE ON EDUCATION TECHNOLOGY.**

You have called for a national mission to make every child technologically literate by challenging all components of the American community to help achieve four fundamental pillars of a national education technology initiative.

1. Provide access to modern computers for all teachers and students;
2. Provide every teacher the training and support they need to help students learn through computers and the information superhighway;
3. Develop effective and engaging software and on-line learning resources for the full curriculum;
4. Connect every school and classroom in America to the information superhighway

*While we're cutting - eliminate - speech 36 - Schools - 3 countries*

The Educational Technology Challenge would be the major federal component of your national mission. It is consistent with the themes of your State of the Union and your vision of the national role. The federal government sets a national vision --- the four pillars needed to make every young person technologically literate -- and then we challenge every state to work with communities and private sector to come through with a strategy to make this vision a reality.

### **III. RECOMMENDATION FOR AN EDUCATION TECHNOLOGY INITIATIVE.**

Over the past few months, staff from the NEC, OMB, DPC, OSTP, OVP, and the Departments of Education and Commerce have put together a detailed proposal for your Challenge Fund. This memorandum proposes a unified recommendation from this group, but we try to highlight major policy issues that we resolved in case you or the Vice President has a different view.

**A. WHY WE REJECTED AN EXPLICIT MATCHING FUND:** Initially, the working group was looking at requiring each state to put forward a specific dollar match -- ranging from 1 to 1 or up to 4 to 1 -- of the federal dollars. This match could come from a combination of state, local, and private sector spending, but would have to represent new spending over and above each previous year's level to be credible. It became increasingly clear, however, to the working group that this strict matching approach would lead to a counterproductive degree of federal intrusiveness. Any plan to determine and monitor how much states were spending and how much they were matching specific federal dollars would create a need to determine maintenance of efforts levels, pricing of private sector contributions, and subjecting states to Inspector General audits and DoEd attempts book-keeping reviews that have little to do with achieving your four goals. Given these problems, the working group unanimously agreed that the best way for the nation to achieve your four goals is for the federal government to set the vision and to challenge states (with local communities and the private sector) to come up with their own strategies to accomplish this vision.

**B. RECOMMENDED STRUCTURE: THE STATE CHALLENGE FOR A NATIONAL MISSION:** Consistent with your stated vision of the federal and local government roles, this proposal sets a four-part national mission and then asks challenges each state to come forward with a strategy for enabling every school in the state to meet the four goals that you have outlined. Within this challenge, we can still require strategies that call for the private sector to at least match the federal contributions -- without nitpicky monitoring.

States would have maximum flexibility in meeting this four-part national mission: Each state will be eligible to receive a portion of the Fund each year based on the number of students. The only three requirements are: 1) A Statewide Strategy; 2) Strong Private Sector Participation; and 3) Public Accountability to their States.

**1. Statewide Strategy:** Each state will develop a strategy for enabling every school in the state to meet the four goals that you have outlined by the dawn of the next century. These State strategies will ensure that local districts and schools (like those in your Empowerment Zones) with high concentrations of students from low-income families

are able to participate fully in this initiative. States will have broad flexibility in determining how they choose to meet your goals. The strategy to achieve the fourth pillar -- to connect all schools and classrooms to the information superhighway -- should include a plan to work cooperatively with the regulators and the private sector to take full advantage of the more affordable rates and new competition flowing from the landmark Telecommunications Act. Strategies would include benchmarks and timetables for accomplishing the four goals, but these measures will be set by the State not by the federal government.

**2. Private Sector Partnership:** State strategies should include significant private sector participation and commitments to meet the four pillars. *Private sector commitments should at least match the amount of federal support.* The working group feels that such a match can be met by volunteer services, cost reductions and payments for connections under the expanded Universal Service Fund provisions of the Telecom Act, and a range of other commitments. The main reason for including such a private sector match is to continue your challenge to the private sector to participate as full partners in implementing your national vision within each state. This matching challenge to the private sector can be used by states and local communities to leverage private sector participation. We believe that this challenge for an "up-front" match also can be designed so that it does not carry the excess baggage (described above) of the intrusive federal administrative oversight required of an on-going match of state and local district funding.

**3. Annual Progress Report to the Public:** Rather than have a program that asks the state to report its progress to the federal government for review, we would only ask that each state lay out clear goals and benchmarks and then publicly release them to the citizens of their state each year. Each state would publicly report at the end of every school year to its residents the progress it has made in achieving the benchmarks it has set and how it will achieve the ultimate objectives of its strategies in the most cost-effective manner. This will assure that the states -- who will be putting up the bulk of the resources -- are fully accountable to their own voters.

**C: ENSURING A TRUE NATIONAL EFFORT:** We wanted to ensure that no Governor or even Mayor could stand in the way of this challenge to the nation. Therefore, we recommend that there be a "state default" option if a state does not come forward with a statewide strategy and a local innovation fund. This design ensures that at every community and every company you speak to, your challenge can apply to them. They can be part of the state challenge: if the state defaults on their option, they can come forward and apply for their portion of funds, and any company or community can apply for the local innovation fund. This way everyone is empowered to participate in this national mission.

**1. State Default Option:** In the event that a state is unwilling or unable to come up with a State Plan to meet your four goals and participate in this Challenge, a State Default option would be triggered. This option would make local communities in the state eligible to apply for the state share of the Challenge Fund by forming local consortia with private sector partners and putting together a plan to achieve your four

goals at the local level. This will assure that all communities can participate, and no governor will have a veto over your challenge. In the current political climate, this will put considerable local pressure on governors to join in the challenge: any governor who chooses to argue that his or her state can go it alone without your leadership and assistance will be confronted by local mayors, school boards, superintendents, teachers and parents who will demonstrate their support for your leadership by making clear that they want to participate in the Fund Challenge.

**2. Innovation Fund: An Expanded Technology Learning Challenge:** As part of the national challenge fund, the proposal would set aside a portion of the fund for local innovation by expanding your successful Technology Learning Challenge Grant Competition ("TLC"). Each year a portion of the Fund will be set aside and placed into an expanded TLC. Every local community in the country will have the opportunity to apply for these competitive challenge grants by putting together a consortium of schools, businesses, telecommunication and software companies, university and other community partners that come up with truly innovative approaches to meeting all four of the pillars at the local level. As with the TLC, each consortium of schools must include some schools with high concentrations of students from low-income families.

**D. FUNDING LEVELS:** The Challenge Fund will provide a total of \$2.5 billion over five years. The Fund will then be subject to a sunset provision to allow a reassessment in five years of whether the Fund is still needed, and if so at what level of funding.

#### **IV: RELATION OF CHALLENGE FUND TO TELECOMMUNICATION ACT.**

Implementation of the Telecommunications Act can operate to provide schools with affordable access to telecommunications connections. States, therefore, may consider giving top priority in using federal challenge dollars to help finance the Teacher Development, Computers, and Software goals. States are not prohibited from using federal dollars for Connection; and States are encouraged to consider innovative, cost-effective financing strategies that permit bundling of one or more of the four components to permit constant renewal and up-dating over time. Your announcement of this Fund provides an opportunity for you to welcome the rapid, bi-partisan Congressional support in the Telecom Act to help implement one of the four pillars of your education technology initiative -- making connections to schools and classrooms more affordable. The Challenge Fund is designed so that Congress can now be asked to act just as swiftly on a bi-partisan basis to support implementation of all four pillars of your education technology initiative.

#### **V: THREE OPTIONS FOR NAME OF THE FUND:**

- **Education Technology Challenge:** Basic and to the point, but there is reason to believe that some feel that this implies a more advanced education and some may not seem it applies to them.
- **Technology Literacy Challenge:** This is seen as the name that most people believe will apply to them.
- **Future Tools for Schools:** Popular with people, but may seem juvenile.

## LEVEL 1 - 1 OF 6 STORIES

Copyright 1995 The New York Times Company  
The New York Times

November 20, 1995, Monday, Late Edition - Final  
(New Jersey)

SECTION: Section B; Page 1; Column 1; Metropolitan Desk

LENGTH: 128 words

HEADLINE: NEW JERSEY DAILY BRIEFING;  
Praise for a Union City School

BYLINE: By SUSAN JO KELLER

DATELINE: UNION CITY

BODY:

Until three months ago, Union City schools were one step away from a state takeover like those in Newark, Paterson and neighboring Jersey City. But the state has backed off because the schools are getting better.

Now someone else is recognizing Union City for academic innovation: William H. Gates, the chairman of the Microsoft Corporation, has chosen Christopher Columbus School as a leader in the use of technology in education. With the help of Bell Atlantic, the middle school has set up a computer network that links its students and teachers in class and at home.

Students from the school will be featured in a videotape that will be shown on Nov. 28 during Mr. Gates's announcement of his vision for the future of education. SUSAN JO KELLER

LANGUAGE: ENGLISH

LOAD-DATE: November 20, 1995

LEVEL 1 - 2 OF 6 STORIES

Copyright 1995 The New York Times Company  
The New York Times

November 19, 1995, Sunday, Late Edition - Final

SECTION: Section 13NJ; Page 6; Column 1; New Jersey Weekly Desk

LENGTH: 131 words

HEADLINE: IN BRIEF;  
School Makes Strides With Computer Network

BYLINE: By STEVE STRUNSKY

BODY:

Until three months ago, Union City schools were being monitored by the state, one step away from a Department of Education takeover like those in Newark, Paterson and neighboring Jersey City. But after several reforms, the monitoring was lifted.

Now, one of the district's middle schools has come even further. Bill Gates, the chairman of Microsoft, has recognized the middle school as national leader in the use of technology in education. Mary Masengale, Microsoft's marketing manager, said the company was impressed by Christopher Columbus School's Interactive Multimedia Education Trial, in which students are provided with personal computers at home, linked in a single network to fellow students, their teachers, and computers they use in school. STEVE STRUNSKY

LANGUAGE: ENGLISH

LOAD-DATE: November 19, 1995

## LEVEL 1 - 3 OF 6 STORIES

Copyright 1995 The New York Times Company  
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August 21, 1995, Monday, Late Edition - Final  
Correction Appended

SECTION: Section B; Page 1; Column 2; Metropolitan Desk

LENGTH: 1437 words

HEADLINE: Averting a Takeover of Schools;  
For Union City District, Efforts to Improve Seem to Work

BYLINE: By NEIL MacFARQUHAR

DATELINE: UNION CITY, N.J., Aug. 18

BODY:

There was a time a few years ago when Robert J. Fazio cringed before telling people he taught school here.

"No matter where we went around the state, there would be this kind of look," said Mr. Fazio, now the principal of Christopher Columbus School. "There was never anything said -- but the 'Oh, you're from UNION CITY' reaction was embarrassing."

The pattern of failing students, decrepit schools and detached administrators that provoked state intervention in Jersey City, Paterson and Newark also prevailed in this blue-collar, largely immigrant city. A takeover loomed.

No longer. Galvanized by the threat of losing their schools to state bureaucrats, the administration got a sizable infusion of city and state cash to restore and modernize 11 school buildings. More importantly, they scrapped the rigid rules of the centralized administration, instead giving power to local administrators, teachers, parents and students whose school-based committees were authorized to make curriculum and budget decisions.

It seems to be working. Test scores are climbing relative to state figures, along with attendance rates. And after seven years of intensive monitoring, the New Jersey Department of Education announced this month that Union City was recertified, no longer under the state microscope.

The move to decentralize the schools is also being championed in New York City by Mayor Rudolph W. Giuliani. While some feel that Mr. Giuliani is overoptimistic in how much money he can save by cutting the system's central bureaucracy, many involved in the schools -- including union leaders, for instance -- feel that he is on the right path in wanting to give local districts more control over their affairs. And Union City's experience may provide ammunition for that argument.

"There is a national movement to try to move more responsibility to principals," said Diane S. Ravitch, a former Assistant United States Secretary of Education and author specializing in school issues. "People have lost faith in the idea of centralization as an answer because the bureaucracies are so

The New York Times, August 21, 1995

inflexible."

Educators believe that a key reason the takeovers in Jersey City and Paterson have failed to improve student achievement, and in Newark could develop similar problems, is a problem plaguing urban districts nationwide: headquarters staffs tout decentralization without carrying it out. In most urban districts, the very people in charge of bringing about such changes have often spent their entire careers battling for promotions to the central offices in an effort to have more authority.

"People at the center have a hard time letting go," Ms. Ravitch said. "They think the people in the schools can't be trusted."

In Union City, conditions do not appear at first blush to be conducive to success; most commuters whizzing along Interstate 495 near the Lincoln Tunnel probably do not even notice the city surrounding them, an area that local residents call the most densely populated in America. About a square mile holds more than 60,000 people, and like other crowded urban areas, it is replete with problems like heavy drug abuse and fractured families.

In a city that is more than 90 percent Hispanic, newcomers from Colombia, El Salvador and the Dominican Republic have supplanted the Cuban immigrants that filled the city during the 1960's. The schools decayed, officials say, largely because no one had much faith that the 8,500 or so students -- most of them immigrants -- could learn much anyway.

"They came from poor countries and couldn't read or write," Mr. Fazio said. "The mind-set here before was that these kids can't succeed. This was told to them in the classroom."

The newest school buildings in Union City date from the 1930's, with some going back over 100 years. When the state began inspecting the schools before threatening the takeover, it found damaged windows, dim lighting, stuck fire exits, toilets that did not flush and cockroaches.

But after the district was first threatened with a state takeover in January 1988, rather than waiting for the worst, the city pushed through a nearly \$27 million bond issue to rebuild the schools.

"We had about 100 pages' worth of repairs and renovations," said Carl H. Johnson, secretary of the Board of Education, noting that the bond issue pushed the city tax rate up about 4 percent. To get the work done in two years, teachers and students put up with things like jackhammers operating indoors during classes. When it was over, the annual maintenance budget was pushed to \$2 million from \$50,000.

Over all, the school budget jumped from \$42 million, to \$77 million, Mr. Johnson said, mostly stemming from a 1990 state law that gave 30 urban districts increased aid. A huge slice of the money helped pay for 100 more staff members, including 80 teachers.

But the most pronounced change came in management of the schools. The school board dismissed the top two administrators and brought in Thomas Highton, a former principal, as Superintendent. He organized school improvement teams at each school with a mandate to make plans for improvements.

The New York Times, August 21, 1995

School board members and all top 11 administrators at headquarters had to sit on at least one team with a mix of teachers, parents and students. Each school was given an initial \$50 per student, rising to \$200 next year, to spend on whatever the team thought would improve student performance.

Most schools bought computers, software and other high-tech equipment. From 1990 to 1994, the district installed 775 computers, bringing the student-computer ratio to 11 to 1. The state ratio is around 17 to 1.

Spending last year at Emerson High School in Union City, for example, included \$500 for an America On-Line account and \$10,000 in software for art courses. But the Emerson improvement team also decided to spend \$50,000 on a Marine Corps R.O.T.C. program, much to the dismay of headquarters officials.

"People at the central administration were opposed to getting the military into the school," said Annette F. Kaplan, the educational supervisor for the district. Still, the headquarters stuck to its commitment not to interfere. The 25 students who joined, many floundering and often in trouble with the police, are now marching in community parades.

"It proved to us that teachers do know what is right for their kids," Ms. Kaplan said. Within the next few years the schools are expected to gain complete control over their individual budgets, not just the improvement items.

Some changes were mandated from the top. The schedule was changed to give bigger blocks of time to each subject, with mathematics stretching to 80 minutes, for example. Immigrant children with the weakest grasp of English were switched out of the normal bilingual program into "port of entry" classes using computers to emphasize basic words. Students in all grades had to do at least one book report monthly.

Improving the faculty was also stressed. When all the teachers at the Christopher Columbus School wanted to take a four-day seminar on reform, the headquarters staff worked as substitute teachers.

The school, which has about 300 seventh and eighth graders, introduced some of the most extensive changes by formulating an experiment with Bell Atlantic that got the teachers and the students computers at home and in the classroom, all wired into the Internet and to each other.

"It is an unbelievable sight to walk into a classroom and see the students teaching the teachers," Mr. Fazio said.

The computers also helped solve personal problems. "Girls who thought they were pregnant and afraid to talk to anybody would broach the subject on the E-mail," Mr. Fazio said. "They didn't feel threatened the way they would walking into the principal's office."

The machines were not a foolproof success; one student was barred from the computers for scrolling through everyone else's E-mail, and some teen-agers were appalled at the idea that their parents could contact the school in English or Spanish on the computers.

Still, attendance problems all but evaporated, and only one student dropped out the first year, with seven the second. Students said their entire class

The New York Times, August 21, 1995

qualified to take geometry in high school, well ahead of students at other schools.

Union City teachers and administrators concede that the changes would be harder to carry out in larger school districts but could be done by breaking them into smaller units.

"By giving the schools more input, we could get the output," said Marilyn Trevelise, the computer teacher at Christopher Columbus School.

CORRECTION-DATE: August 25, 1995, Friday

CORRECTION:

A chart on Monday with an article about schools in Union City, N.J., misstated the difference between language arts test scores for its students and students in the rest of New Jersey in 1993. Union City students scored 4.6 percent higher, not 1.8 percent. The headline on the chart referred incorrectly to the school district involved; the figures were from Union City, in Hudson County, not from Union County.

GRAPHIC: Photos: The annual maintenance budget for Union City, N.J., schools was pushed to \$2 million from \$50,000 as officials confronted the looming state takeover. Alessandro Serino, left, and Modesto Ibarra, janitors at Christopher Columbus School, cleaning the stairwells and halls.; Robert J. Fazio (Photographs by Julio Ibarra Jr. for The New York Times) (pg. B1)

Maps of Union City, New Jersey (pg. B5)

LANGUAGE: ENGLISH

LOAD-DATE: August 22, 1995

LEVEL 1 - 4 OF 6 STORIES

Copyright 1995 PR Newswire Association, Inc.  
PR Newswire

June 15, 1995, Thursday

SECTION: Financial News

DISTRIBUTION: TO CITY, BUSINESS AND EDUCATION EDITORS

LENGTH: 839 words

HEADLINE: BELL ATLANTIC EXTENDS UNION CITY EDUCATION TRIAL; LATEST STUDENT TEST SCORES SHOW SIGNIFICANT IMPROVEMENT

BODY:

To the delight of students, teachers and parents, Bell Atlantic announced today it will extend for an additional two years its state-of-the-art interactive multimedia education trial, which began at the Christopher Columbus School here in 1993. The extension of the trial also will include expansion of the program to the Emerson High School.

Also today, the Union City Board of Education released test results showing that the students at Christopher Columbus outscored their middle school peers on standardized tests. Not only did the Christopher Columbus students score higher than students at other schools in their district, but they also scored higher than the 1994 state average -- the most recent figures available -- on annual tests administered each year to all seventh and eighth grade New Jersey students.

UNION CITY, N.J., June 15

The just-released test results bear out recent comments by U.S. Secretary of Education Richard Riley in which he singled out the Christopher Columbus School, calling it a "prime success story with a new and challenging curriculum."

"We are already seeing dramatic results by the students: vastly improved standardized test scores, increased attendance, and increased and awakened interest in learning by students who have not responded to traditional instruction," Secretary Riley said in a March 1995 speech on educational technology.

Union City school officials attribute improved test scores to several factors including the Bell Atlantic telecommunications trial, school reform, parental involvement, and teacher and student commitment.

"The Bell Atlantic trial is a perfect example of how education can be delivered in a creative and meaningful way. Integrating technology into the curriculum, coupled with a supportive environment has proved to be a successful combination. Remarkable progress has been made by those students involved in the trial," said Fred Carrigg, Director of Academic Programs for the Union City School District.

At the outset of the trial in September 1993, Bell Atlantic supplied all seventh grade students and teachers at Christopher Columbus with personal

PR Newswire, June 15, 1995

computers at both home and at school. Teachers, students, and administrators were interconnected via regular telephone lines equipped with ISDN, allowing them to exchange E-mail, data, and graphics around the clock.

"One of the most illuminating aspects of the trial was that this new communications channel dramatically increased communication between students, teachers, and parents and a 'virtual community' was created around the school," said Al Koepp, President of Bell Atlantic-New Jersey. "Parents became much more involved in all aspects of school life."

Network users at the school also had access to the Internet and to a multimedia library from which they could retrieve text, graphics, and video information. Bell Atlantic helped to train teachers, students, and parents in using the telecommunications system.

Bell Atlantic announced today that it plans to continue the ongoing trial at Christopher Columbus for another two years as well as expand the program to the Emerson High School. Extending the trial will ensure that most graduates of Christopher Columbus will continue to participate in the telecommunications program as they move on to high school, and Bell Atlantic will be able to analyze new technical capabilities of the telecommunications system. In addition, a long-term "longitudinal education study" on the impact of technology on learning will be conducted by the N.Y.-based Center for Children and Technology.

"The administrators and teachers at Christopher Columbus have been working very diligently to reform their school's curriculum and to integrate technology into the daily educational process. We are delighted by the school's achievements and very pleased to be associated with the changes taking place under the energetic leadership of Principal Bob Fazio, Assistant Superintendent Frank Vaccarino, and Superintendent Tom Highton," Koepp said.

Bell Atlantic Corporation (NYSE: BEL) is at the forefront of the new communications, entertainment and information industry. The Philadelphia-based company provides a full array of local telecommunications services throughout the mid-Atlantic region and is one of the nation's largest cellular carriers. Bell Atlantic is a partner in national alliances that will offer wireless communications as well as video and interactive programming. Bell Atlantic also has substantial holdings and operations in international markets and provides services for customer-based information technology.

INTERNET USERS: Bell Atlantic news releases, executive speeches, news media contacts and other useful information are available on Bell Atlantic's media relations World Wide Web site (<http://www.ba.com>), by gopher (<gopher://ba.com>) or by ftp (<ftp://ba.com/pub>). CONTACT: Jim Carrigan of Bell Atlantic, 201-649-2279

LANGUAGE: ENGLISH

LOAD-DATE: June 16, 1995

## LEVEL 1 - 5 OF 6 STORIES

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Business Dateline;  
New Jersey Business

June, 1995

SECTION: Vol 41; No 6; Sec 1; pg 28

LENGTH: 1531 words

HEADLINE: Telecommunications industry changes as technology advances

BYLINE: Anthony Birritteri

DATELINE: Trenton; NJ; US

BODY:

The make-up of telecommunications firms will also vary. Besides local and long distance carriers, other companies will continue to enter the market (and in some cases merge) such as cable TV firms, software developers, computer manufacturers and Hollywood movie/entertainment studios. Analysts estimate that the market for the overall convergence of these services represents a \$ 1-trillion business opportunity.

Al Koepp, president and CEO of Bell Atlantic-New Jersey, Newark, takes an optimistic view of the future. "I believe that there is magic afoot in our state. We' have intelligence in our network that understands speech, lets you see the person with whom you are speaking, talks back to you, tells you who is calling and transfers you to where you ought to be.

"Bell Atlantic-NJ will be bringing video dialtone to all of our customers in the state by 2010 and many areas will have the capability long before that," he says.

Dover Township (Toms River area) will have the nation's first commercial video dialtone network up and running by the end of the summer. Consumers will then have an alternative to the traditional cable TV companies in the area and will have access to digital quality broadcast and cable programming as well as interactive and on-line services. Already, five video information providers have reserved 302 of 384 available channels on the Dover network.

Regarding other players in the telecommunications market, Koepp says the field will be so robust, there will be a niche role for everyone.

One such niche is education. In Union City's Christopher Columbus School, eighth grade students, parents and teachers are linked through personal computers in a Bell Atlantic technology trial. With computers at home and in school, students and teachers regularly exchange messages, data and graphics. They use the Internet, the global computer network, to share educational experiences with their counterparts in Germany, Italy and Japan.

In Bergen County, a fiber-optic network is being used by schools, community groups and the police and fire departments for education and training. This distance learning network includes more than 35 classes, 300 students in 23

high schools and two colleges.

"What's happening in Dover Township, Union City and Bergen County is the emergence of the information superhighway that is such a hot topic these days," says Koeppel. "Today, Bell Atlantic provides remote medical monitoring. Tomorrow, remote laser surgery. For day-to-day transactions, an entire electronic marketplace will be available on demand, offering familiar services in new forms, and new services that are just waiting to be invented."

At AT&T, Basking Ridge, convenience, control and connections will bring about changes in the way we communicate/interact with each other in the next 20 years. The company sees technology blending smoothly into our daily lives with network connections being more useful, less intimidating and more powerful.

Along with Bell Labs, Murray Hill, its research arm, AT&T has been making a splash in the field of future visions with its "You Will" television spots and "Connections" video. These promotions show people in a variety of situations using telecommunications services that will be in place early next century. It shows: people shopping from home by speaking to a computer and viewing a giant-sized monitor; children playing interactive virtual reality games with friends at distant locations; three-way videoconferences where people and their projects are displayed on screen in real time; phone calls to foreign countries where you can see the person and automatically translate their language into your own; children learning in schools through the use of interactive computer software; and hand held personal devices that encompass color screens and windows for incoming phone calls with video image.

Some new products the company is working on include the "telephone on a chip." In actuality, this means that one of the world's 70 telephone standards are programmed onto a chip at the final stage of manufacturing, with software explaining what type of phone the chip is going into and what country. This will lower development costs and, in turn, lower costs to consumers.

The "Sage" product line will be introduced by the company shortly. One item will act as a universal mailbox, figuring out the mechanical of incoming messages, whether it's a fax, e-mail, voice mail or page, for example. The device also will let you pick who called, rather than having to wait for a series of taped messages as in today's answering machines.

The telephone keypad as we know it is being reinvented by the Touchtone II project. Rather than placing an entire keyboard on a phone, the idea of a changing screen and soft "buttons" similar to an ATM machine will be used to navigate the user.

With the development of high bandwidth transmissions, virtual reality can replace many travel needs and be the setting for business meetings, reasons Chuck Hellings, director of business services, MCI, Parsippany. "It sounds like Buck Rogers, but we see this happening today on the desktop screen." He says that asynchronous transfer mode (ATM) will be the transmission technology that will provide such capabilities.

Some 50 percent of MCI's revenues in the next six years will come from products and services that didn't exist a year ago, underscoring the fact that one cannot accurately predict this fast changing industry. As a starting point of things to come, however, MCI has introduced a variety of products and

services that may be considered the building blocks for the future.

This past March, it unveiled internetMCI, providing a full range of Internet offerings to users including easy-to-use software, nationwide dial-up access to the Internet, a site on the World Wide Web (ww.w.internetMCI.com) and markeplateMCI--the first brand-name secure on-line, electronic shopping area.

Last September, the company launched networkMCI BUSINESS, an integrated information and communications software package that contains e-mail, fax messaging, information services/automated news monitoring, document sharing and vide Conferencing, on-line multimedia business catalogs and Internet access.

Taking a stroll onto the fashion industry catwalk, the company, in April, debuted "(at)fashion," an infosite/venue on the WWW. The cyber-site offers unique insider access to the fashion world. This is the first of many Internet "events" that MCI will unveil to broaden the demographics of users.

Telecommunications is making the world a smaller place, yet there are still untapped or fledgling areas in the world that will be the hotbed of telecommunications development well into the next millennium.

According to Hellings, Latin American countries and Pacific Rim nations are the source of new market growth. China and countries in Eastern Europe will soon follow, but the telecommunications infrastructure is lacking in those areas.

Last year, British Telecommunications (BT) invested \$ 4.3 billion in MCI, a 20 percent stake, for the creation of Concert, a seamless, global communications service to multinational companies offering virtual network, managed data, applications and customer management services.

Playing an expansive role in the global telecommunications market is Sprint Corporation. Last year, the company formed a global partnership with Deutsche Telekom of Germany and France Telecom to offer seamless, global services to business, consumer and carrier markets worldwide. As part of the agreement, the two foreign telecommunications firms will invest some \$ 4.2 billion in Sprint.

This past March, Sprint signed a memorandum of understanding to participate in China Unicom's national network implementation.

According to David Barry, vice president of east area sales who oversees the New Jersey Sprint marketplace, current technology expansion involves data transmission. Businesses will soon require higher network bandwidths for future applications that "we're not even talking about today. On-line services will continue to need faster transmission speeds for huge data files that may have high resolution images, full motion graphics and video."

Barry sees more firms entering the long distance market within the next five to seven years. In 10 years, he predicts a consolidation. The number of long distance companies will get bigger and merge related businesses.

Last October, Sprint formed an alliance with Tele-Communications Inc., Comcast Corporation and Cox Communications (cable companies) in an effort to provide local telephone service on a local basis. In March, the companies agreed on a wireless initiative and now want to package local telephone, long distance and wireless communications with cable services, using the cable

infrastructure.

The full effects of telecommunications on society cannot yet be perceived. We can only skim the surface, attempting to predict its future by looking at what is being developed today. MCI's Hellings has an infinite view of telecommunications' future, "We really don't know how far this will go, or how great it will be."

GRAPHIC: Photo; Logo

LANGUAGE: ENGLISH

UMI-ACC-NO: 9560961

LOAD-DATE: October 29, 1995

## LEVEL 1 - 6 OF 6 STORIES

Copyright 1994 PR Newswire Association, Inc.  
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June 2, 1994, Thursday

SECTION: Financial News

DISTRIBUTION: TO BUSINESS AND EDUCATION EDITORS

LENGTH: 911 words

HEADLINE: BELL ATLANTIC'S UNION CITY EDUCATION TRIAL GOES GLOBAL

DATELINE: UNION CITY, N.J., June 2

BODY:

For students and teachers at Union City's Christopher Columbus School, the national information superhighway now has a number of international exits, all reachable through their personal computers at school and at home.

As part of an interactive multimedia education trial now underway at the school, Bell Atlantic has arranged for about 130 seventh grade students to exchange electronic mail messages with students and teachers at U.S. Department of Defense Dependent Schools (DoDDS) around the globe. Another 170 students, who are not part of the trial, have access to the computers at the Christopher Columbus School, but not at home.

More than 300 DoDDS addresses are available, including those in Germany, Japan and Italy. Students, their parents and teachers now have the capability to exchange greetings and educational information with all of them. More countries may be added, such as Great Britain, Netherlands, Spain, Portugal, Panama, Cuba and Turkey.

Twenty Christopher Columbus School teachers have completed more than 30 hours of training as part of the trial that is scheduled for the 1993-94 and 1994-95 school years. Bell Atlantic will provide additional training on the DoDDS connection within the next few weeks. The teachers then will train the students and parents.

In preparation for establishing the DoDDS connection, seventh grade teachers Lorri McGorty and Lucille Neyes visited teachers at military installations in Germany and Japan, respectively.

"The software that we are using is better than regular electronic mail," said McGorty. "We will be able to have interactive 'discussions' with students and teachers overseas but also will be able to retrieve information that they've created in special data bases."

The DoDDS data bases may cover various educational topics, including literature, geography, local customs, etc. Similar data bases will be created at Union City, too, when the students and teachers become familiar with the new capabilities.

"We've already received messages back from teachers in Germany who are as excited as we are about adding DoDDS to the trial. This opens up a cornucopia

PR Newswire, June 2, 1994

of educational opportunities for the students," said Rod Bowers, a Bell Atlantic trial coordinator.

Bowers said the DoDDS connection will enable urban students to "see the world through the eyes of other students" who may come from Nebraska or California, for example, and are living overseas.

A goal of the trial is for students, teachers and parents to be part of an enriched educational process, a process that is easy to use and enables them to more effectively learn and communicate. Another goal of the trial is to use a telecommunications network technology called "Hi Gain Digital Subscriber Line" (HDSL) that provides two-way, full-motion video, voice and data transmission over copper telephone lines. The accelerated introduction of HDSL and other advanced technologies in the public telecommunications network is part of Bell Atlantic-New Jersey's "Opportunity New Jersey" plan.

"Every so often technology allows us to build a gateway to our future," said Al Koeppel, Bell Atlantic-New Jersey president and CEO. "This is one of those times and the Christopher Columbus School is the place."

Access to DoDDS is directly from personal computers to Bell Atlantic's public telecommunications network. Computer modems, traditionally used for such access, are not needed at school or home since a technology called Integrated Services Digital Network, commonly known as ISDN, makes them unnecessary.

Within the next few weeks, Bell Atlantic's network that enables computer users to exchange messages and access multiple data bases.

In the 1994-95 school year, phase two of the trial will begin. Using their computers, students will interact with multimedia instructional and reference materials that will be stored in multimedia libraries. This will help to energize the educational process, stimulating student involvement and true understanding through exploration and problem solving. Since many of the students' families speak Spanish, much of the information will be in both English and Spanish to enhance the learning process.

A student studying space flight while at home or in school, for example, will be able to access a multimedia data base with video and audio news clips of the nation's first space flight and interviews with the astronauts. Text and photographic information also could be obtained by searching the data base and viewing it on the computer screen.

Bell Atlantic Corporation (NYSE: BEL), based in Philadelphia, is the parent of companies that provide a full array of local exchange telecommunications services in New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia and Washington, D.C. The corporation is at the forefront of developing a variety of new products, including video, entertainment and information services.

Bell Atlantic also is the parent of one of the nation's largest cellular carriers and has an ownership position in cellular properties internationally. In addition, Bell Atlantic owns an interest in Telecom Corporation of New Zealand and is the parent of companies that provide business systems services for customer-based information technology throughout the U.S. and internationally.

PR Newswire, June 2, 1994

// CONTACT: James W. Carrigan of Bell Atlantic, 201-649-2279

LANGUAGE: ENGLISH

LOAD-DATE: June 3, 1994

**Turning an Inner-City School Around  
Christopher Columbus School  
Union City, NJ**

Union City, New Jersey, is a community of ethnic and cultural diversity with a predominantly immigrant Latino population. With nearly 42,000 residents per square mile, it is the most densely populated city in the United States. The Board of Education serves 8,361 students in 11 schools (8 elementary, 1 middle, and 2 high schools). Schools and families in this community lacked access to the types of services offered by advanced communications and computer technologies.

Like many urban school districts, Union City has faced many educational challenges. In 1989, Union City was identified as one of New Jersey's 30 special needs districts for education. Student dropout and transfer rates were high, and standardized test scores were well below State averages. When the State investigated Union City schools, the district received failing grades in 40 out of the 52 areas studied. Union City was given 5 years to improve its schools or have them taken over by the State.

Union City responded by creating a curriculum that supports the development of thinking, reasoning, and collaboration skills. Under this plan, students learn by doing, and are expected to demonstrate proficiencies by writing research papers and completing projects. Simultaneously, the school board made significant changes in the physical environments of its schools. A bond initiative passed by Union City residents helped the district refurbish all of the schools and many individual classrooms, and funds from New Jersey's Quality Education Act provided the capital needed to install 775 computers in the district—establishing an 11 to 1 ratio of students to computers.

This program was created through a partnership of the Bell Atlantic Corporation, the Union City Board of Education, and the Education Development Center's Center for Children and Technology.

The 2-year trial began in September 1993. Computers were supplied at the school and in the homes of all of Christopher Columbus' 135 seventh-grade students and their teachers. Teachers were trained on use of the computer systems and they trained the parents. The technology enabled participants to communicate between school and home, and use a set of basic software tools to carry out a wide range of curriculum activities. Later, very high-bit rate digital subscriber lines and audio/video server technology were integrated into the network.

Participants gradually became accustomed to using computers by being introduced only to e-mail in the first year. During the second year, additional multimedia resources were integrated into the school and its curriculum.

Recent test scores and other data demonstrate just how successful the program has been. Student test scores for Christopher Columbus School on New Jersey's Early Warning Test in reading, math, and writing are now more than 10 points above the statewide average—across the board. Absenteeism by students and teachers is very low, and the dropout rate is now almost nonexistent (transfers into the school are high, and transfers out are very low). Parents who could not speak English just 2 years ago are now

*"I have seen the future of education and it's in Union City, NJ."—Linda Roberts, DoEd*

*"I find that my students want to write more, and they are reading more because they are using the computer and it's very patient. They are corresponding with each other, and they are corresponding with me through e-mail."—a teacher, Christopher Columbus School, Union City, New Jersey*

*"As opposed to hearing groans about assignments, they are excited about 'where are we going to find it,' and 'if it's not here let's try down at the media center.' There's a sense of anticipation about how to go about researching."—a teacher, Christopher Columbus School, Union City, New Jersey*

*"We see computers as manipulatives—tools to promote thinking and educational risk-taking on the part of students and teachers. . . . Because of what they have been exposed to at Clear View, [children who graduate from our elementary school] are pushing the bar at middle school. . . . They don't want to sit in rows and read books. They want to talk about it, give their opinion, produce things. Now they are having the same effect in high school. Let's raise the bar for all kids."*—Dr. Ginger Hovenic, principal, Clear View Elementary School, Chula Vista, California

actively involved with their children's use of the computers at home and frequently send messages to teachers and the school principal.

### **Computer-Assisted Learning Brings Educational Opportunities to a Largely Immigrant Population**

**Clear View Elementary School  
Chula Vista, CA**

Clear View Elementary is located in Chula Vista, California, 8 miles from the Mexican border. The students at the school, many of whom come from low-income families, are simultaneously starting new lives in a new country, learning a new language, and receiving a quality education because of the computer-assisted educational opportunity offered at their local public elementary school.

The scene in every classroom at Clear View Elementary School is the same: 10 children working on computers, another 10 receiving instruction from the teacher, and the remaining students working at their desks using manipulatives. This is a school where English is a second or new language for 68 percent of its 550 students. Spanish-speaking students are transitioned into English over a 2-year period, thus they learn to read and write in their native language as well as in English.

With renovations completed in 1991, Clear View Elementary—a Cox Communications International Model Technology School—is now completely networked with fiber, satellite, and cable. Every course of instruction has a technology component, thus, even the youngest kindergarten children use computers at some basic level. By first grade Clear View students use computers to activate a LEGO town that they build from scratch, and fourth through sixth graders are experiencing global awareness through the Internet. Students have access through fiber optics to a laser disk multisubject jukebox located 8 miles away, spreadsheet applications, multimedia projects and computer-art software.

Staff at Clear View have found that one of the most effective uses of limited resources is the development of student troubleshooters. A computer expert works with students whom teachers have identified for their technical aptitude, enthusiasm about computers, and personal motivation, teaching them to troubleshoot a system and recognize and correct problems. These student support teams then train new teams in the lower grades, which ensures continual support.

Clear View's technological transformation is in part due to a joint venture with San Diego University. Clear View was originally designed as a professional development school where student teachers could get direct experience in an academic environment. To accommodate this, the school includes a classroom where one-way glass permits student teachers to observe classes while they are in progress.

Clear View's principal, Ginger Hovenic, deserves much of the credit for the technology in the school's classrooms. She has pursued and been awarded public funds for educational restructuring grants, as well has donations and support from the business community. Her desire to provide "the best education possible for ALL students" has motivated partnerships with businesses and foundations that have in turn resulted in creative projects that have opened the schoolhouse doors: Clear View students have com-

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Christopher Columbus Middle School

Union City, N.J.

*Technology in support of sweeping educational reform*

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Technology can connect classrooms and communities with spectacular results. The Christopher Columbus Intermediate School in Union City, N.J. provides an excellent example. Christopher Columbus has successfully integrated up-to-the-minute computer technologies, school curriculum, and a network wiring classrooms to the homes of students, teachers, and administrators. Truancy and dropout rates fell through the floor; test scores went through the roof -- all in an inner-city school system in such dire shape in 1989 that the state threatened to take it over.

Communication inside and outside of school is the purpose of the Interactive Multimedia Education Trial at Christopher Columbus. Union City is the most densely populated city in the U.S. and second only to Miami in its concentration of Latino residents. Since 1992, Bell Atlantic and the Education Development Center, Inc., have worked with the Union City school board to let technology support and enhance the district's sweeping educational reforms.

The technology trial began in September 1993, when all students and teachers in the seventh grade at Christopher Columbus (and student families) were supplied with computers and telecommunication capabilities at home and at school. Each classroom has two Macintosh computers. The computer lab has 35 machines. And the media resource room has four. Through the trial machines, students can access the Lotus Notes network connecting them to the Department of Defense Dependent Schools (DoDDS) and the Internet, as well as a virtual CD-ROM library.

The majority of students use the network to communicate with one another, their teachers, and administrators on a regular basis. While much of the communication is social, they are also using the technology extensively as a tool to collaborate on school projects, to obtain information about missed assignments, and for report writing.

**REMARKS BY PRESIDENT WILLIAM JEFFERSON CLINTON  
ROUNDTABLE AT CHRISTOPHER COLUMBUS JUNIOR HIGH SCHOOL  
UNION CITY, NEW JERSEY  
FEBRUARY 15, 1996**

- Thank you, Carol Lisa for those comments. I also want to thank Christopher Columbus principal Bob Fazio for giving us the opportunity to participate in this important discussion. *And I want to pay hello to students in the 65 schools in Hudson, Bergen and Morris counties that*
- I have been looking forward to this visit. I wanted to see for myself the remarkable progress this school has made as a result of the introduction of educational technology both in the classrooms and homes of students. Congressman Menendez deserves a lot of the credit for initiating this effort, along with Jim Cullen of Bell Atlantic. This is a true public-private partnership. *are watching us via the inform Slides*
- As I said in my State of the Union, we live in an age of great possibility. But the only way we are going to take advantage of its many opportunities is if we provide a better education for our children. *This new tech is bringing these schools and this meeting closer together*
- Today, that means making sure every classroom in this country is connected to the information superhighway, with computers, good software and well-trained teachers.
- That's why I am so proud of what you are doing here in Union City and in Bergen County. We know what you are doing works. We've seen the results here in this school and in other pilot projects across the country. Now we need to share this success with the rest of America.
- That's why today, I am announcing a new Technology Literacy Challenge. I am proposing a \$2 billion challenge fund to challenge every state to put the future at the fingertips of every child in every classroom in America. This will be a public-private partnership modeled after what you have done here in Union City. State and local governments, the private sector, schools, students, parents and teachers will all work together so that our schools can provide all our children a greater opportunity to learn the skills they will need to thrive in the next century. This proposal is a part of the balanced budget I submitted to Congress. We can do this and balance the budget at the same time -- and we should.
- At this time I'll turn it over to our high-tech Vice President, Al Gore...

**REMARKS BY PRESIDENT WILLIAM JEFFERSON CLINTON  
THE TECHNOLOGY LITERACY CHALLENGE  
UNION CITY, NEW JERSEY  
FEBRUARY 15, 1996**

[Senator Lautenberg; Congressman Menendez; Bob Fazio, Principal of Christopher Columbus School; Jim Cullen, Vice President of Bell Atlantic; parents, teachers, students of both the Christopher Columbus School and the 36 schools in 3 counties that are joining us via the magic of video technology; and citizens of Union City]

*V.P. -  
Riley -  
Trotter  
[Cong.]*

It's great to be back here in New Jersey and in Union City. I came here today because this city and your school system are undergoing a remarkable transformation that the rest of the country needs to know about. Let me begin by acknowledging one of the original architects of this transformation -- your former mayor and current Congressman, Bob Menendez. Bob is a true native son of Union City. He is a product of your school system and a tireless advocate for quality education. It was his sponsorship of the New Jersey Telecommunications Act in 1991 that set the stage for the remarkable turnaround we are witnessing today. I'll talk more about that later.

*It is fitting  
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The revitalization of Union City and your schools reminds us that we live in an age of great possibility. More Americans, from all walks of life, will have more chances to build the future of their dreams than ever before.

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We have the lowest combined rate of unemployment and inflation in 27 years. Homeownership is at a 15-year high. Our auto industry leads the world again. In the last three years, we have created over 7.7 million new jobs -- 700,000 of them in the construction industry alone. For three years in a row our people have set successive records for the formation of new businesses. America is strong and growing stronger.

And New Jersey is also on the move. Unemployment here is down. In the last 35 months, 140,700 new jobs have been created. New home building has increased 4 percent per year in this state, after falling 17 percent in the 4 years before I took office.

Around the world, from the Middle East to Bosnia, America is leading the way toward peace and freedom. And perhaps, most important, Americans are coming together around our basic values of family, work and community. The crime rate, the welfare rate, the food stamp rate, the poverty rate, the teen pregnancy rate are all down.

And we've done all this while creating a smaller, more efficient national government. The national government is now 205,000 employees smaller than it was the day I took office. It's the smallest since 1965. And we're getting rid of 16,000 pages of federal regulations. These are real accomplishments.

*[Handwritten mark]*

But this new era is also producing new pressures and new challenges. While more

of our citizens are living better, too many of them are working harder just to keep up, and they justifiably wonder if they will be winners, of if they will be left behind. After what I've seen today, I can tell you, Union City is not going to be left behind.

Our challenge in this time of change is to preserve the American Dream for all citizens who are willing to work for it, to maintain our cherished values and to assert our leadership for peace and freedom -- at home and around the world.

But, we have new challenges, even as we become stronger. In my State of the Union, I outlined our seven biggest challenges for the future -- challenges we must meet if we are to make the American Dream available to all our people and unite our country around our shared values. Those challenges are: strengthening our families and giving our children better childhoods; enhancing the security of working families through access to health care, lifetime education and training and secure pensions; fighting crime and gangs and drugs until crime is the exception, not the rule, in America again; protecting our environment, maintaining our world leadership for peace and freedom, continuing to reform and reinvent our government so that it works better for the American people, and finally, providing better education for all our citizens.

How are we going to meet these challenges? The same way you are doing it here -- through teamwork. As I also said in the State of the Union, the era of big government is over. But, we must not go back to an era when people were left to fend for themselves. We cannot solve the complex problems of the modern world unless we work together in the genuine spirit of community -- everybody doing his or her part to enable all of us to make the most of our lives: businesses, schools, churches, families, and government at every level. Again, there is no better example of what I'm talking about than what you are doing right here in the Union City schools. And that's what I want to talk with you about today: the challenge of providing a better education for all our citizens.

We all know that it's no longer enough to teach our children reading, writing and arithmetic. Education in the Age of Possibility will require the kind of computer literacy that my generation only dreamed about. It's not that today's young people are unfamiliar with the new computer technology. They interact with it at the supermarket check-out counter, in video arcades, and in their homes. It is ironic that one of the few rooms you can enter in America today where you can't find this technology is a classroom. We have to change that. That's why I have called for a national partnership to ensure that every young person in America has access to the future. I have proposed that every classroom in America be connected to the information superhighway, with computers and good software and well-trained teachers by the year 2000. When I looked around the country to find a community that is leading the way, I didn't have to look far. I found the best model right here in Union City.

You have taken a school system that was once on the brink of state takeover and rescued it through a public-private partnership involving the Bell Atlantic Corporation, the

Union City Board of Education, and the Education Development Center. A few minutes ago, just across the street at Christopher Columbus School, I got a first-hand look at the difference they are making.

Beginning in September of 1993, thanks to the efforts of Congressman Menendez and others, computers were supplied at the Christopher Columbus School and in the homes of the school's 135 seventh-grade students and their teachers. Since then, an interactive television network linking classrooms at Columbus to schools in Bergen, Hudson and Morris counties has been installed. This technology has resulted in an extraordinary improvement in the lives of students at Columbus. Since going on-line, student test scores have skyrocketed while truancy and drop-out rates have plummeted. ~~And we know that technology in the classroom is not just a fancy toy. It improves the critical thinking and problem-solving abilities of students.~~

Technology is revolutionizing education. It's not just a fancy toy. It is dramatically improving the critical thinking and problem solving skills of students -- and not just here in Union City, but all over the country. New York City's Computer Pilot Program showed gains of 80 percent for reading and 90 percent for math when computers were used to assist in the learning process.

A 1995 review of more than 130 recent academic studies found that the use of technology to support instruction improved student achievement in language, art, math, social studies and science.

And a Congressionally mandated review of 47 comparisons of multimedia instruction with more conventional approaches found time savings of 30 percent, improved achievement and cost savings of 30 to 40 percent, and a direct positive link between the amount of interactivity provided and instructional effectiveness.

So, we now have dramatic proof of the power of technology to expand opportunity for our young people. We must harness that power and spread it throughout this country.

In the State of the Union, I called on all Americans to join a national mission to make every child technologically literate. Today, I am announcing a major initiative to energize our people as we work together to fulfill this mission. **I am proposing a \$2 billion Technology Literacy Challenge that will put the future at the fingertips of every child in every classroom in America.** The way we will do this is through the kind of partnership that is working here in Union City: state and local governments, the private sector, and local communities all working together to achieve our goal of advancing the technological literacy of American students. *under this challenge we will help*

We want to accomplish four things: one, provide access to modern computers for all teachers and students; two, provide every teacher the training and support they need to help students learn through computers and the information highway; three, develop effective and

engaging software and on-line learning resources for the full curriculum; and four, connect every school and classroom to the information superhighway by the year 2000. When we do this, we will open new horizons of opportunity for our children and our future. And we can do this while we balance the budget.

This new initiative builds on other recent steps we have taken to move America forward into the age of technology. We're bringing companies together in California to wire the state's classrooms by the year 2000. And we insisted that the Telecommunications Bill which I signed last week require that companies provide a discount for wiring classrooms to the information superhighway.

Let me be clear: I made a commitment in my balanced budget plan that even as spending was being cut dramatically, the education of our children would not suffer. The funding for this new initiative may mean we have to cut spending elsewhere -- but nothing is more important than preparing our children to compete and win in the new global economy.

A hundred years ago, America made a commitment to provide its children the skills to navigate the move from farm to factory. America's little red schoolhouses helped wipe out illiteracy while preparing every child for the world of steel, electricity and internal combustion. Now, we are moving into an economy built on information and intense global competition. Our commitment to our children today must include finding a way to use the enormous power of new information technology to prepare our children for the challenges of the 21st century.

I believe the national government has a responsibility to work with schools and communities meet this challenge. The Technology Literacy Challenge will help state and local communities succeed. The future will be ours, but only if we work together to ensure everyone a chance at the American Dream.

Thank you and God bless you all.

**REMARKS BY PRESIDENT WILLIAM JEFFERSON CLINTON**  
**THE TECHNOLOGY LITERACY CHALLENGE**  
**UNION CITY, NEW JERSEY**  
**FEBRUARY 15, 1996**

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The revitalization of Union City and your schools reminds us that we live in an age of great possibility. More Americans, from all walks of life, will have more chances to build the future of their dreams than ever before.

America is strong and growing stronger. We have the lowest combined rate of unemployment and inflation in 27 years. Homeownership is at a 15-year high. Our auto industry leads the world again. In the last three years, we have created over 7.7 million new jobs -- 700,000 of them in the construction industry alone. For three years in a row our people have set successive records for the formation of new businesses.

And New Jersey is also on the move. Unemployment here is down. In the last 35 months, 140,700 new jobs have been created. New home building has increased 4 percent per year in this state, after falling 17 percent in the 4 years before I took office. And consumer confidence has increased 16 percent.

Around the world, from the Middle East to Bosnia, America is leading the way toward peace and freedom. And perhaps, most important, Americans are coming together around our basic values of family, work and community. The crime rate, the welfare rate, the food stamp rate, the poverty rate, the teen pregnancy rate are all down.

And we've done all this while creating a smaller, more efficient national government. The national government is now 205,000 employees smaller than it was the day I took office. It's the smallest since 1965. And we're getting rid of 16,000 of the 86,000 pages of federal regulations. These are remarkable accomplishments.

But this new era is also producing new pressures and new challenges. While more of our citizens are living better, too many of them are working harder just to keep up, and they justifiably wonder if they will be winners, or if they will be left behind. After what I've seen today, I can tell you, Union City is not going to be left behind.

Our challenge in this time of change is to preserve the American Dream for all citizens who are willing to work for it, to maintain our cherished values and to assert our leadership for peace and freedom -- at home and around the world.

But, we have new challenges, even as we become stronger. In my State of the Union, I outlined our seven biggest challenges for the future -- challenges we must meet if we are to make the American Dream available to all our people and unite our country around our shared values. Those challenges are: strengthening our families and giving our children better childhoods; enhancing the security of working families through access to health care, lifetime education and training and secure pensions; fighting crime and gangs and drugs until crime is the exception, not the rule, in America again; protecting our environment, maintaining our world leadership for peace and freedom, continuing to reform and reinvent our government so that it works better for the American people, and finally, providing better education for all our citizens. And that's what I want to talk with you about today.

We all know that it's no longer enough to teach our children reading, writing and arithmetic. Education in the Age of Possibility will require the kind of computer literacy that my generation only dreamed about. It's not that today's young people are unfamiliar with the new computer technology. They interact with it at the supermarket check-out counter, in video arcades, and even in their homes. It is ironic that one of the few rooms you can enter in America today where you can't find this technology is a classroom. We have to change that. That's why I have called for a national partnership to ensure that every young person in America has access to the future. I have proposed that every classroom in America be connected to the information superhighway, with computers and good software and well-trained teachers by the year 2000. When I looked around the country to find a community that is leading the way, I didn't have to look far. I found the best model right here in Union City.

Your model is based on teamwork. As I also said in the State of the Union, the era of big government is over. But, we must not go back to an era when people were left to fend for themselves. We cannot solve the complex problems of the modern world unless we work together in the genuine spirit of community -- everybody doing his or her part to enable all of us to make the most of our lives: the federal government, state and local governments, the private sector, families. Again, there is no better example of what I'm talking about than what you are doing right here in Union City.

*None  
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So, we now have dramatic proof of the power of technology to expand opportunity for our young people. We must harness that power and spread it throughout this country. *In the Gov't & union I issued a national mission to assure every child this technological every sector*  
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We want to accomplish four fundamental things: one, provide access to modern computers for all teachers and students; two, provide every teacher the training and support they need to help students learn through computers and the information highway; three, develop effective and engaging software and on-line learning resources for the full curriculum; and four, connect every school and classroom to the information superhighway by the year 2000. When we do this, we will open new horizons of opportunity for our children and our future.

And we can do this while we balance the budget. *This challenge will be through state Gov't & the private sector schools & businesses to meet these broad national goals*  
Let me be clear: I made a commitment in my balanced budget plan that even as spending was being cut dramatically, the education of our children would not suffer. The challenge

*A major initiative that will... Energy... Column... to... Our... people... to... fulfill... this*

- ② We've announced new technology Learning Grants to - *innovation grants*
  - ③ Private Sector Tech Corps to bring private sec. volunteers into classrooms - *helping wire schools*
  - ④ We've created an American Tech hour. *As in CA together to win their classrooms.*
- This is one real step we've taken*

Telecom bill - make it cheaper  
give school districts a discount  
to get their classrooms on the Superhighway

This new training will help our students  
think critical - problem solving that is  
critical for the future

funding for this initiative may mean we have to cut spending elsewhere -- but nothing is more important than preparing our children to compete and win in the new global economy.

A hundred years ago, America made a commitment to provide its children the skills to navigate the move from farm to factory. America's little red schoolhouses helped wipe out illiteracy while preparing every child for the world of steel, electricity and internal combustion. Now, we are moving into an economy built on information and intense global competition. Our commitment to our children today must include finding a way to use the enormous power of new information technology to prepare our children for the challenges of the 21st century.

I believe the national government has a responsibility to work with schools and communities meet this challenge. The Technology Literacy Challenge will help state and local communities succeed. The future will be ours, but only if we work together to ensure everyone a chance at the American Dream.

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Hello to the Classroom in 65 schools in  
Hudson, Bergen & Morris counties - need  
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Education is the way we give every child a future, the chance to live the American dream. If our children succeed, America will succeed. So we have to renew our schools and throw the doors of college open wider than ever before.

- Values -

- now we have to take the next step.

We have expanded Head Start preschool; we have enacted Goals 2000, the first-ever national standards; we have created a network of school-to-work programs to help high-school graduates who do not go on to college right away. I have challenged states to give all parents the right to choose which public schools their children will attend. And we should let teachers form new schools with a charter they can keep only if they do a good job.

when I was your age we thought high-tech. we had libraries

And I am determined that college be more available than ever before. We expanded Pell Grant scholarships for deserving students; we created a new direct lending program that makes it easier to pay back student loans; our AmeriCorps program is giving 25,000 young people the chance to serve their community while helping pay for college. Here, too, we must do more. I have proposed that every family be able to deduct \$10,000 of college tuition; I have proposed a \$1000 scholarship for the top 5% of every high school graduating class; and I have proposed that work study be expanded so that 1 million young people can work their way through college.

In 1870 we

But we all know that it's no longer enough to teach our children reading, writing and arithmetic. Education in the Age of Possibility will require the kind of computer literacy that my generation only dreamed about. It's not that today's young people are unfamiliar with the new computer technology. They interact with it at the supermarket check-out counter, in video arcades, and in their homes. ~~It is ironic that one of the few rooms you can enter in America today where you can't find this technology is a classroom.~~ <sup>But one of the</sup> We have to change that. That's why I have called for a national partnership to ensure that every young person in America has access to the future. I have proposed that every classroom in America be connected to the information superhighway, with computers and good software and well-trained teachers by the year 2000. When I looked around the country to find a community that is leading the way, I didn't have to look far. I found the best model right here in Union City.

You have taken a school system that was once on the brink of state takeover and rescued it through a public-private partnership involving the Bell Atlantic Corporation, the Union City Board of Education, and the Education Development Center. A few minutes ago, just across the street at Christopher Columbus School, I got a first-hand look at the difference they are making.

*you all know what happened here*

*rewrite* Beginning in September of 1993, thanks to the efforts of Congressman Menendez and others, computers were supplied at the Christopher Columbus School and in the homes of the school's 135 seventh-grade students and their teachers. Since then, an interactive television network linking classrooms at Columbus to schools in Bergen, Hudson and Morris counties has been installed. This technology has resulted in an extraordinary improvement in the lives of students at Columbus. Since going on-line, student test scores have skyrocketed while truancy and drop-out rates have plummeted.

*And I think you know - this tech has made an extraordinary difference in your lives - homework.*

Technology is revolutionizing education. It's not just a fancy toy. It is dramatically improving the critical thinking and problem solving skills of students -- and not just here in Union City, but all over the country. ~~New York City's Computer-Pilot Program showed gains of 80 percent for reading and 90 percent for math when computers were used to assist in the learning process.~~

*We must do everything we can. . . .*

A 1995 review of more than 130 recent academic studies found that the use of technology to support instruction improved student achievement in language, art, math, social studies and science.

And a Congressionally mandated review of 47 comparisons of multimedia instruction with more conventional approaches found time savings of 30 percent, improved achievement and cost savings of 30 to 40 percent, and a direct positive link between the amount of interactivity provided and instructional effectiveness.

So, we now have dramatic proof of the power of technology to expand opportunity for our young people. We must harness that power and spread it throughout this country.

In the State of the Union, I called on all Americans to join a national mission to make every child technologically literate. Today, I am announcing a major initiative to energize our people as we work together to fulfill this mission. **I am proposing a \$2 billion Technology Literacy Challenge that will put the future at the fingertips of every child in every classroom in America.** The way we will do this is through the kind of partnership that is working here in Union City: state and local governments, the private sector, and local communities all working together to achieve our goal of advancing the technological literacy of American students.

We want to accomplish four things: one, provide access to modern computers for all teachers and students; two, provide every teacher the training and support they need to help students learn through computers and the information highway; three, develop effective and engaging software and on-line learning resources for the full curriculum; and four, connect every school and classroom to the information superhighway by the year 2000. When we do this, we will open new horizons of opportunity for our children and our future. This proposal is part of the balanced budget I submitted to Congress. We can do this while we balance the budget.

*before announcing*

This new initiative builds on other recent steps we have taken to move America forward into the age of technology. We're bringing companies together in California to wire the state's classrooms by the year 2000. And we insisted that the Telecommunications Bill which I signed last week require that companies provide a discount for wiring classrooms to the information superhighway.

Let me be clear: I made a commitment in my balanced budget plan that even as spending was being cut dramatically, the education of our children would not suffer. The funding for this new initiative may mean we have to cut spending elsewhere -- but nothing is more important than preparing our children to compete and win in the new global economy.

*This a model of how we all work together - pull together -*

*MICROSOFT?*

A hundred years ago, America made a commitment to provide its children the skills to navigate the move from farm to factory. America's little red schoolhouses helped wipe out illiteracy while preparing every child for the world of steel, electricity and internal combustion. Now, we are moving into an economy built on information and intense global competition. Our commitment to our children today must include finding a way to use the enormous power of new information technology to prepare them for the challenges of the 21st century.

*working together to meet challenge of the future*

*more to middle*

I believe the national government has a responsibility to work with schools and communities meet this challenge. The Technology Literacy Challenge will help state and local communities succeed. The future will be ours, but only if we work together to ensure everyone a chance at the American Dream.

Thank you and God bless you all.