

Federal Actions

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THE WHITE HOUSE
WASHINGTON

October 18, 1995

MEMORANDUM FOR **GENE SPERLING, GREG SIMON, KEN APFEL,
JONATHAN SALLET, HENRY KELLY, MIKE SMITH,
LINDA ROBERTS, JIM KOHLENBERGER,
JEREMY BEN-AMI**

FROM: Paul Dimond
 Mike Schmidt

SUBJECT: Schedule of Meetings on Possible Federal Actions on
 Educational Technology

CC: Lou Finch
 Peter Edelman
 Bruce Katz

We have scheduled a series of meetings to reach decisions on the possible federal actions on educational technology that have been proposed over the past few months. These meetings are intended to be small meetings between the WH offices listed in this memo and the agency officials responsible for each individual issue. Please mark these dates and times on your calendar -- room numbers will be announced the day before each meeting. We will also schedule a session on an "Electronic Learning Campus" with representatives of HUD after Jim Kohlenberger frames the issues for decision. Any issues that need resolution by the Principals will emerge from these meetings.

Meeting 1: Spectrum Issues

Participants: OVP, OMB, WH, DOC

Meeting Date and Time: **October 19, 2:30 p.m. Room 180 OEOB**

Issues:

- Strong Presidential statement supporting the *Snowe-Rockefeller amendment and expansion of Universal Service provisions* in the telecommunications bill. The Snowe-Rockefeller Amendment and the Universal Service Trust Fund provisions in the current Telecom Bill will lower the costs for schools and classrooms to connect to and to use the Information Superhighway. These provisions could cut the costs to schools and classrooms by a significant amount, compared to businesses.
- *Request Permission of the FCC and State Public Utilities Commissions for Differential Pricing for Schools.* Challenge phone companies to **connect classrooms within schools**

and provide access rates for schools at a discount. Ask FCC to expedite approval of modified pricing for schools when phone companies propose it.

- ***Request that FCC set aside a specific piece of spectrum for educational use.*** Send a strong letter to FCC requesting that a specific piece of spectrum be set aside (*the "NII Band"*) which can be used to (i) lower the cost of internal networking for schools with difficult installation problems and (ii) lower the cost of connecting rural schools.

Meeting 2: DoDDS Schools

Participants: DOD, WH, OVP, OMB, DoEd

Meeting Date and Time: October 23, 12:00 p.m.

- follow-up

Issues:

- ***21st Century Schools -- Department of Defense:*** Direct the Department of Defense to transform its Department of Defense Dependant Schools (DoDDS) -- 172 overseas for 82,000 dependent children and 65 State-side for 33,000 dependent children of our families in service -- into cost-effective ***models for the Nation's 21st Century Schools.*** Demonstrate how computer-based learning can be systematically designed, developed, and integrated in a large K-12 school system that spans the globe in order to significantly improve student achievement and performance across all academic areas and at each grade level. The goal is to have an hour of interactive courseware per day used at every grade level and to promote additional interactive discovery, research and expert tutoring on the education resources available on the internet. The military has already shown that it can dramatically improve the results of adult training of its full-time and national guard forces stationed all around the country and the globe through distance and interactive learning at a lower cost; and providing a world-class education for dependent children in Defense Department schools is an integral part of Secretary Perry's commitment to a high quality of life and training for military families. As a result, the transformation of the Defense Department Schools is a central part of the DoD mission.

Meeting 3: Department of Education/ HHS Issues

Participants: DoEd, WH, OMB, OVP, HHS

Meeting Date and Time: October 24, 12:00 p.m.

Issues:

- ***Announce Second Round of the Technology Learning Challenge II and expand to Pre-School:*** (a) Expand the TLC to include pre-school. This will provide the second round with a major public relations and policy boost: early childhood includes both pre-

schoolers as well as students in the early elementary grades; and interactive learning games, discovery exercises, and simulations enable parents, teachers, and children to play and to learn together. This also provides an easily understood way of showing how interactive educational technologies can be leveraged through use at home, as well in the school or day care center. (b) FY 97 Budget request of \$75 million, up from our request of \$50 million in FY96.

- ***A Learning Lever for Every 5th Grade Student:*** News reports of the California CEO meeting with the President indicated that the heads of Oracle and Sun agreed to produce an interactive terminal to connect each student to the Internet for a price of \$500 per unit. Assuming this price point, it would require approximately [\$x] per year to provide the [y #] of indigent 5th graders (measured by reduced or free lunches) with such a computer, starting in 1998. This could stimulate the market for providing such learning levers to all students entering the middle grades. We could make the provision of such a computer terminal for every such indigent fifth grade student a condition of continued federal financing of the matching Education Trust Fund, starting in 1998; or provide separate federal funding for every such indigent student, beginning in 1998
- ***Learning Levers for Every Head Start student.*** Budget funds to help pay for **interactive learning levers** for new Head Start participants beginning in 1998. These educational learning tools could be used both at home or in the Head Start centers.

Meeting 4: Smithsonian Issues

Participants: Smithsonian, WH, OVP, OMB

Meeting Date and Time: TBD

Nov 2

Issues:

- ***Bring the Smithsonian to Your School:*** Establish a cost-shared program to bring the rich collections of the Smithsonian, the National Park Service, and the National Archives, for example, to the classroom through digital means. ***Announce a new policy allowing cost-shared partnerships*** with publishers to digitize and distribute federal cultural collections granting them exclusive rights to the digital collections, and the logo of the institutions, for a fixed period [e.g. 1-2 years]

Meeting 5: PBS Issues

Participants: WH, OMB, OVP, DOC, DoEd

Meeting Date and Time: November 15, Time TBD

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Issues:

- ***Endorse Public Broadcasting Spectrum and TeacherNet:*** The President (in conjunction with PBS) proposes the use of PBS spectrum by local PBS stations to provide local interactive education programming, and TeacherNet. The President also directs the federal agencies to make their curriculum, educational and other pedagogical research and information available on TeacherNet. Our preliminary discussions with PBS indicate that they and their local stations would welcome the chance to work in cooperation with major private sector partners to create a TeacherNet, with home pages for providing teachers with access to educational curriculum materials and dialogues about student learning and educational technology
- ***Public Broadcasting Spectrum -- World Wide Classroom and Interactive Learning:*** The Public Broadcasting Spectrum action listed above would also contain a initiative to work in cooperation with major private sector partners to create a virtual Worldwide Classroom on the Internet (e.g., to connect students at a distance in research with one another and with experts in a variety of fields), and also an expansion of their charter to make clear that they will use their piece of the spectrum in local communities to provide engaging and interactive educational content to schools, day care centers and homes (e.g., Big Bird and Barney interactive learning games).
- ***Internet Games:*** The President could challenge students to compete in a series of educational contests over the internet loosely patterned after the Olympic Games.

Meeting 6: Internal Issues

Participants: WH, OVP, OMB

Meeting Date and Time: October 26, 11:00 a.m.

Issues:

- ***Direct agencies to actively participate in the Tech Corps*** to the full extent that their mission and budgetary authorities allow (this will enable the government to participate in Tech Corps at the same level as the private sector). An Executive Order will be issued so directing federal agencies.
- ***Streamline federal donations of computers*** to schools to ensure that federal contributions can be made as easily as private contributions. An Executive Order so directing federal agencies will be issued.
- ***Presidential Awards for Innovative Use of Technology for Education:*** The Smithsonian and Computer World Magazine have hosted a small award program in this general area for the past seven years. It could be greatly expanded if elevated to the stature of a Presidential Award.

- ***Issue an executive order establishing the Interagency Learning Technology Office*** designed to (a) focus the currently scattered and duplicative federal research and state-of-the-art demonstration programs for education technology in DoD, NASA, DoEd, NSF and other technology agencies -- working in cooperation with the private sector and educators -- on topics of value to public schools; (b) in cooperation with private developers, conduct an advanced demonstration in each of three areas -- pre-school, K-12, and school-to-work; and (c) work with the private sector and the States to get the results of existing and future research marketed to schools, students, and parents.

Meeting 7: Technological Literacy Trust Fund

Participants: WH, OMB, OVP, DOC, DoEd

Meeting Date and Time: ~~November 6, 11:00 a.m.~~ ^{Nov 3} ^{pm 2:40}

Issues:

- ***Establish federal funding for 50 matching, State Technological Literacy Trust Funds:*** The diverse federal actions described in this document will help stimulate major private sector actions to assist in lowering the costs to schools, but there will still be significant start-up and on-going costs. As a result, financing matching funds -- that encourage each state (and local districts) to reprioritize their own investments in educational technology in partnership with the private sector -- may be influential. This may be particularly important -- as provided in the TLC authorizing legislation -- to making sure that state-local-private consortia are formed within states so that potential "have-not" districts and schools are not left out of the education technology revolution. Specific Actions could include: ***Option 1. Auction a portion of the spectrum***, to be specified, and use proceeds to finance \$1-2 billion/year for five years for matching state commitments in education technology. ***Option 2. Budget DoEd (and Commerce) to finance equivalent amount.*** Federal discretionary budgeting to fund 50 education technology trust funds could begin in FY 1997 (available on October 1, 1996) under existing authorization for TLC.

THE WHITE HOUSE

WASHINGTON

November 9, 1995

MEMORANDUM FOR GENE SPERLING

FROM: Paul Dimond
Mike Schmidt

SUBJECT: Schedule of Meetings on Possible Federal Actions on
Educational Technology

CC: Bill Curry
Greg Simon
Jonathan Sallet
Henry Kelly

As you know, we have held a series of meetings to reach decision points on the possible federal actions on educational technology that have been proposed over the past few months. These meetings were small meetings between the WH offices participating on the Ed Tech Work Group (DPC, NEC, OMB, OSTP, OVP) and the agency officials responsible for each individual issue. At this point, the proposed actions fall into three categories:

- Issues that are ready to go and require no action by the NEC Principals
- Issues that require action/resolution by the WH and/or the NEC Principals
- Issues that are still pending or that only time will resolve

I. ISSUES THAT REQUIRE NO ACTION BY THE NEC PRINCIPALS

Issue: *Strong Presidential statement supporting the Snowe-Rockefeller amendment and expansion of Universal Service provisions in the telecommunications bill.*

Summary: The Snowe-Rockefeller Amendment and the Universal Service Trust Fund provisions in the current Telecom Bill will lower the costs for schools and classrooms to connect to and to use the Information Superhighway. These provisions could cut the costs to schools and classrooms by a significant amount, compared to businesses.

Status: We have and will continue to publicly support the Snowe Rockefeller Amendment as a part of the Telecom Bill. The current version of the amendment does include language that could be interpreted by the FCC to allow the USF to be used for inside-the-school wiring.

Issue: Request that FCC set aside a specific piece of spectrum for educational use

Summary: Send a strong letter to FCC requesting that a specific piece of spectrum be set aside (*the "NII Band"*) which can be used to (i) lower the cost of internal networking for schools with difficult installation problems and (ii) lower the cost of connecting rural schools.

Status: The Department of Commerce will send a request to the FCC supporting the proposal to set aside this piece of spectrum.

II. ISSUES THAT REQUIRE SOME ACTION/RESOLUTION BY THE WH OR THE NEC PRINCIPALS

Issue: 21st Century Schools -- Department of Defense:

Summary: Direct the Department of Defense to transform its Department of Defense Dependant Schools (DoDDS) -- 172 overseas for 82,000 dependent children and 65 State-side for 33,000 dependent children of our families in service -- into cost-effective *models for the Nation's 21st Century Schools*. Demonstrate how computer-based learning can be systematically designed, developed, and integrated in a large K-12 school system that spans the globe in order to significantly improve student achievement and performance across all academic areas and at each grade level. The goal is to have an hour of interactive courseware per day used at every grade level and to promote additional interactive discovery, research and expert tutoring on the education resources available on the internet.

Status: We met with Lou Finch and his colleagues from DOD to discuss potential actions that DOD could take to support the President and Vice President's Educational Technology Initiative. The potential additional cost that would be needed is fairly modest. There was general agreement at this meeting that the proposal to transform the Department of Defense Dependant Schools (DODDS) into models for the nation's 21st Century Schools has a good chance of being approved by DOD.

Action Needed: In order to reach a final decision, Laura will have to put in a call to Deputy Secretary White to indicate the importance the President and Vice President place on the Educational Technology issue, and our desire to see this DODDS Schools initiative be a part of our announcement of the National Public-Private Plan.

Issue: Announce Second Round of the Technology Learning Challenge II and expand to Pre-School:

Summary: (a) Expand the TLC to include pre-school. (b) FY 97 Budget request of \$75 million, up from our request of \$50 million in FY96.

Status: There is agreement from both DoEd and HHS that this is the right step to take for FY 1996. HHS has already been working with DoEd to make sure that the next round of TLC grants will include language on including pre-school children in any new grant proposal. We asked DoEd to come back to us with two documents in this area:

1. A recommended timeline for the TLC II rollout (now projected for announcement in January), complete with an alternative "Plan B" timeline for a December announcement;
2. A summary of the major themes of the TLC II grant application (how will we focus on pre-school children and still build off of existing application requirements).

Action Needed: We need to get as close to the President's FY96 \$50 million request for TLC II as possible or it will not be able to fund any new applicants in the FY96 appropriations battle: This must be a priority on the WH budget negotiation list for FY96. If we are left with something in the \$15-20 million range, as the current Labor/HHS appropriations seem to be heading, these funds will only go to funding year 2 of the 1995 first-round TLC grants and there will not be enough left to fund any significant number of new projects. (DoEd and HHS will cooperate with the current TLC winners who wish to add a pre-school component. With respect to FY97, the real decision is whether to use TLC authorizing provisions to appropriate \$500 million per year to support 50 state TLC matching funds)

Issue: Direct agencies to actively participate in the Tech Corps

Summary: Issue a Presidential Directive that directs agencies to actively participate in the Tech Corps to the full extent that their mission and budgetary authorities allow (this will enable the government to participate in Tech Corps at the same level as the private sector).

Status: According to existing Personnel laws and regulations, Federal Employees already have the ability to volunteer in schools and other non-profit entities on company time for a limited number of hours when approved by the agency head. So no Presidential Executive Order is needed here.

Action Needed: The Working Group recommends that we have some sort of Presidential Directive (a memorandum or letter to the heads of agencies) encouraging the heads of federal agencies to allow their employees to actively participate in Tech Corps and other related volunteer activities in their local schools to help schools integrate technology into the classroom. Working Group members also recommend that agencies have some sort of active encouragement to have their employees participate in such a program -- perhaps some sort of Presidential or Vice Presidential recognition or award for the best agency program in this area (similar to the VP's Hammer Awards for Reinventing Government). Draft language for this Directive is being prepared by OVP and should be ready by next week for our review.

Issue: Streamline federal donations of computers

Summary: Issue an Executive Order that directs federal agencies to streamline their donation of computers and other technologies to schools to ensure that federal contributions can be made as easily as private contributions.

Status: President Bush signed an Order on this subject in November of 1992. However, this order is narrowly targeted at only science and technology agencies (mostly DoD, Energy, and NASA) and has not been very effective in getting high quality equipment into the schools. Moreover, it puts agencies in the position of being viewed as "dumping" obsolete equipment into the schools. The Vice President's Office has been working on a draft Executive Order that would enable all federal agencies to donate used equipment to a group of non-profit entities that take used computers and upgrade them to make them Internet-capable and ready for use in the classroom. This draft order would also expand this initiative to all agencies in government, not just science and technology agencies.

Action Needed: The Vice President's Office promised to have the draft order ready for review by the end of this week. **The Working Group recommends beginning to formally review and clear this order for issuance at whatever roll-out event we end up doing.**

Issue: Issue an executive order establishing the Interagency Learning Technology Office

Summary: Issue an Executive Order formally establishing the ITLO at the Department of Education that would allow it to (a) focus the currently scattered and duplicative federal research and state-of-the-art demonstration programs for education technology in DoD, NASA, DoEd, NSF and other technology agencies -- working in cooperation with the private sector and educators -- on topics of value to public schools; (b) in cooperation with private developers, conduct an advanced demonstration in each of three areas -- pre-school, K-12, and school-to-work; and (c) work with the private sector and the States to get the results of existing and future research marketed to schools, students, and parents.

Status: The ILTO issue is a controversial issue among Working Group participants. All of the meeting participants agreed that there needs to be some role for coordinating Federal R&D in the area of educational technology, and that the ILTO structure already up and running informally at DoEd seems to be the right approach. However, there is some concern that we would be sending the wrong message by making this one of the "Federal Actions" that the President and Vice President hold up as a part of the public-private partnership when it is announced -- the fear is that it will look like we are endorsing the formation of a new bureaucratic structure, or a "typical big government solution" to this issue. The message that needs to get across, but would likely get lost here, is that this organization is needed to focus existing Federal R&D activity (which is scattered across many agencies) and act as a bridge to the private sector in this area.

Action Needed: A consensus recommendation was reached by the Working Group participants: **that we move ahead quietly with an Executive Order that formally creates the ILTO entity (needed for continuity and personnel reasons), but don't make this one of the actions the President and Vice President hold up as a part of their public-private partnership.**

III. ISSUES THAT ARE STILL PENDING OR THAT ONLY TIME WILL RESOLVE

Issue: *Establish federal funding for 50 matching, State Technological Literacy Trust Funds:*

Summary: The diverse federal actions described in this document will help stimulate major private sector actions to assist in lowering the costs to schools, but there will still be significant start-up and on-going costs. As a result, financing matching funds -- that encourage each state (and local districts) to reprioritize their own investments in educational technology in partnership with the private sector -- may be influential. This may be particularly important -- as provided in the TLC authorizing legislation -- to making sure that state-local-private consortia are formed within states so that potential "have-not" districts and schools are not left out of the education technology revolution.

Status: On Friday of last week, Mike Smith made a presentation on the trust fund issue to Ken Apfel, Greg Simon, Paul Dimond, Jonathan Sallet, and other members of the Ed Tech Working Group. He put forward a very credible framework for financing a trust fund that the group agreed should be followed up in more detail:

- On the **Connections** Pillar, Mike argues that between actions being taken by the private sector (e.g. NetDay, ATT) and, more importantly, the changes that will likely come through the Telecom bill and its changes to the Universal Service Fund, the Federal Government will not have to put forward any funding for connecting schools and classrooms.
- On the **Computers** Pillar, Mike proposes that we target grades 4-12 (with the assumption that older machines, or a new generation of cheaper learning levers, will work their way in to the lower grades). Assuming 1 computer for every 4 students (which the pedagogical literature strongly suggests), and a price range of \$1000 - \$1500 per machine, he comes up with a total cost of **\$7.5 billion** for computers and **\$1 billion** for printers over 5 years.
- On the **Teacher Training** Pillar, Mike assumes a total cost of \$1000 per teacher. However, he also assumes that \$400 of this cost will be borne by the computer manufacturers and other sources in free technical training (e.g. how to send an e-mail, how to get on the internet). That leaves \$600 per teacher, and with 2.25 million teachers

nationwide that comes to **\$1.5 billion** to train every teacher over 5 years. After this one time cost, continuing professional development on educational technology will proceed as part of the work of teachers.

- On the **Content Pillar**, Mike argues for the need for approximately **\$500 million** over 5 years to stimulate new ideas (TLC grants, Star Schools, etc). OMB proposes that each computer will need approximately \$500 in software, so that comes to **\$3 billion** over 5 years.

In all, Mike's figures add up to a **total cost of \$13.5 billion over 5 years**. At a 5-to-1 match, that comes out to **\$500 million per year over 5 years in federal funds** (\$2.5 billion) to leverage an additional \$12.5 billion in State and Local match. This federal figure is much more manageable than the higher figures that have been discussed over the past few weeks.

The meeting participants were intrigued by Mike's proposal and will be meeting again early next week to flesh this proposal out in more detail. OMB will run a side-by-side of Smith's proposal with the Rand and McKinsey study numbers for this meeting.

Issue: A Learning Lever for Every 5th Grade Student

Summary: News reports of the California CEO meeting with the President indicated that the heads of Oracle and Sun agreed to produce an interactive terminal to connect each student to the Internet for a price of \$500 per unit. Assuming this price point, it would require approximately [\$x] per year to provide the [y #] of indigent 5th graders (measured by reduced or free lunches) with such a computer, starting in 1998. This could stimulate the market for providing such learning levers to all students entering the middle grades. We could make the provision of such a computer terminal for every such indigent fifth grade student a condition of continued federal financing of the matching Education Trust Fund, starting in 1998; or provide separate federal funding for every such indigent student, beginning in 1998

Status: **The status of this initiative will depend on the outcome of the trust fund discussions.** DoEd has not done any significant thinking on this issue, and we have asked them to prepare a list of options, complete with pros and cons, by the end of this week. However, it seems that there are really only three routes to take on this:

1. If a Trust Fund is created, include this as a state condition of continued federal financing of the matching Education Trust Fund.;
2. Work Legislatively to create some kind of requirement that a portion of Title I funding be used to purchase such a learning lever for Title I eligible students, or;
3. Impose no new Title I requirement but work with Title I providers to encourage them to form technology purchasing consortia that could contract for and purchase such learning levers.

As you can imagine, Option #2 would create all sorts of problems -- not only would we be fighting a tradition of federal non-interference in the way local school districts spend Title I funds, but we would also be contradicting our own "ReGo II" efforts over the past year to roll back burdensome federal regulations. On the other hand, if the Option #1 trust fund is pursued, it may be funded under the TLC provision of ESEA anyway.

Issue: Learning Levers for Every Head Start Student

Summary: Budget funds to help pay for **interactive learning levers** for new Head Start participants beginning in 1998. These educational learning tools could be used both at home or in the Head Start centers.

Status: HHS has a serious objection to this proposal, and it is our opinion that if we wanted to accomplish something in this area someone at a high level at the WH would have to go to the mat with Secretary Shalala. Peter Edelman has agreed to sit down privately with you and Paul to discuss this issue at greater length. In their defense, HHS does have a strong, non-budgetary argument for why they oppose this provision: Unlike the discussion of a learning lever for children at the 5th Grade level, at this time it is not clear to anyone in the public or private sector what the learning levers for preschool children might be, not to mention what is should accomplish. Instead, HHS proposes their participation in the TLC II on this small scale before considering a more serious budgetary commitment.

In our opinion, in order to stimulate relevant commitments to develop pre-school learning levers, Peter's argument is correct.

Issue: *Bring the Smithsonian to Your School: Announce a new policy allowing cost-shared partnerships*

Summary: Establish a cost-shared program to bring the rich collections of the Smithsonian, the National Park Service, and the National Archives, for example, to the classroom through digital means. To accomplish this, announce a new policy allowing partnerships with publishers to digitize and distribute federal cultural collections granting them rights to the digital collections, and the logo of the institutions, for a fixed period [e.g. 1-2 years]

Status: Smithsonian Secretary Heyman is committed to this issue and has been reaching out to the private sector for the past year to explore potential partnerships in this area. He is ready and willing to stand with the President and Vice President and make this willingness to work with the private sector clear. However, this announcement would be much more effective and newsworthy if he (or the POTUS) could announce a major private sector partner that has "signed on" as a corporate partner. Over the next few weeks, we will work to make sure the Smithsonian is plugged in to our outreach efforts with the private sector in an attempt to help broker a possible partnership on this issue.

PBS Issue 1: Recharter PBS for the 21st Century Announcing its Intention to Use Interactive Technologies to Deliver Educational Materials to Homes and Schools

Summary: There seems to be strong consensus among PBS stations that public broadcasting would benefit from a renewal of its mission, and that the information technology revolution provides a good opportunity to do this. PBS stations are proud of their record of innovation in broadcasting and would like to branch out into new media -- including the use of the internet and digital TV broadcasting.

Status: A rechartering effort could strengthen PBS' position politically. Congress backed off from its attempt to eliminate funding for public broadcasting, but they have not found an acceptable way to provide support. **The primary concern raised about a major Presidential announcement rechartering PBS is that it would create expectations that can not be met unless a secure source of funding for this effort is located.** Funds are needed to a) purchase the capital equipment needed to convert to digital communications over the next decade and b) pay for broadcast bandwidth if all or part of the broadcast spectrum is auctioned off. **A wide variety of funding mechanisms have been proposed, but all are tightly coupled with the resolution of the larger question of how to allocate the broadcast spectrum. The central question is whether it makes sense for the President to announce a rechartering of PBS before a decision is reached about the broadcast spectrum and funding.**

PBS Issue 2: Announce TeacherNet, World Wide Classroom and Other Interactive Learning Initiatives

Issue: PBS is already actively developing a system called MathLine that helps math teachers upgrade their skills using videotapes and internet communications. They are anxious to provide an expanded "TeacherNet" and "KidsNet" service to help both teachers and students use interactive technologies to learn in a wide variety of subjects and are actively raising money for these experiments. One of these services is the creation of a virtual Worldwide Classroom on the Internet (e.g., to connect students at a distance in research with one another and with experts in a variety of fields), and also an expansion of their charter to make clear that they will use their piece of the spectrum in local communities to provide engaging and interactive educational content to schools, day care centers and homes (e.g., Big Bird and Barney interactive learning games).

Status: The challenge here is to secure funding for this initiative (either through spectrum methods or through PBS-private sector partnerships). Over the next few weeks, we will be working in our outreach activities to try and connect PBS with interested corporate partners to pursue these initiatives.

Other Minor Issues That Will Be Decided Soon

- **Internet Games:** The President could challenge students to compete in a series of educational contests over the internet loosely patterned after the Olympic Games.
- **Presidential Awards for Innovative Use of Technology for Education:** The Smithsonian and Computer World Magazine have hosted a small award program in this general area for the past seven years. It could be greatly expanded if elevated to the stature of a Presidential Award.

Challenge Grants for Technology in Education FY 1996

Rationale for Presidential Support

1.) Challenge Grants deliver on the President's commitment to stimulate partnerships between business and education that will bring the Information Superhighway to our schools by the year 2000. These grants have brought about new corporate partnerships that the President can stand with. Challenge Grants make the rhetoric become reality.

2.) The 1995 round of competition generated grass roots support in every community and region of the country. The 530 applicants included close to 2,700 school districts. The final 19 grant awards included 153 school districts in 23 states with 120 business partners.

3.) The 1995 Challenge grants provided the basis for a major media event on October 10, 1995, with national coverage in Washington and extensive local coverage in the 19 Challenge Grant communities across the country. A second round of the competition in 1996 could provide national press in January, when the competition is announced, and in October, 1996 when as many as 40 new grants could be announced.

Recommendation:

In final 1996 budget negotiations, the President should request \$50 million for the Challenge Grants.

Time Frame and Scope of the 1996 Challenge Grant Competition

SCHEDULE: The new competition could be announced in January at or around the State of the Union address.

At least 2,000 pre-applications would be received in March 1996 (submitted by 2,000 school districts in as many communities across the country).

By the end of April, 200 of these applicants would be asked to submit full proposals by mid-June 1996. These applications would be reviewed during July and August of 1996, leading to negotiations in September 1996, and a major announcement in early October of 1996.

NUMBER OF AWARDS: Any budget scenario requires at least \$15 million of 1996 money to continue the current 19 grants.

1.) If the President secures \$50 million for K-12 Challenge Grants, \$35 million would be available for approximately 40 new grants. This would be twice the number of 1995, and together with the 1995 awards it would establish approximately 60 communities that would be prime sites for visits and media coverage in the fall of 1996. These 60 grants would include approximately 400 school districts in almost every state, along with several hundred business firms as partners. These awards would make it clear that the President and this Administration is

very serious about bringing new technologies into our schools.

FY 1995 New Awards

\$9.5 million was awarded to 19 Challenge Grant winners. These funds will support the first six months of each project (Oct. 1 to March 31).

FY 1996 Continuations

A minimum of \$15 million is needed to continue the FY '95 Challenge Grants for another nine months (April 1 to December 3, 1996). These projects will then move onto full 12 month funding with FY 1997 funds.

FY 1996 New Awards

An appropriation of \$25 million would allow \$10 million for a second round of Challenge Grants for 20 new grants to be awarded during the fall of 1996. Funds would support the first six months of these projects - as in 1995. An appropriation of \$50 million would allow \$35 million for approximately 40 new grants.

House Impact

The House mark of \$25 million for Challenge Grants would be sufficient to support both the continuation costs of \$15 million and the new award costs of \$10 million.

Senate Impact

The Senate mark of \$25 million sets aside \$10 million for Regional Technology Consortium grants. If this happens, we would be able to meet the Challenge Grant continuation costs of \$15 million, but we would be forced to terminate the second round of the Challenge Grant competition for FY 1996.

NOVEMBER 13, 1995

MEMORANDUM FOR EDUCATIONAL TECHNOLOGY WORKING GROUP

FROM: KINNEY ZALESNE (X67871)

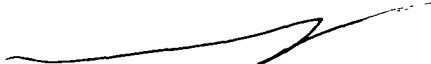
OFFICE OF THE VICE PRESIDENT - DOMESTIC POLICY

SUBJECT: EDUCATIONAL TECHNOLOGY EXECUTIVE ORDER

Attached please find a draft of the Educational Technology Executive Order. After consultation with many of the Federal agencies that have interests in education, technology, and/or property disposal, OVP has drafted this Executive Order that will ensure that the Federal government meets its commitment to put high-quality computers in America's classrooms. In particular, the Executive Order would:

- Permit agencies to transfer equipment directly for use in all curricular subjects, not just math and science (the current Bush order limits donations to math and science).
- Allow intermediate transfer of equipment to non-profit reuse and recycling organizations, so that schools get higher-grade equipment. Under the Bush order, old equipment is transferred as is. This has quickly made schools the dumping grounds for bottom-of-the-line, surplus Federal equipment.
- Permit donation of computers to Head Start and other pre-kindergarten programs.
- Allow donation to educational organizations besides schools, such as teen tutoring centers or hospitals that treat school-age children for lengthy periods of time.
- Create a priority for giving computer equipment to schools in Enterprise Communities and Empowerment Zones.
- Most importantly, the Order would centralize all information about available Federal computers onto one, comprehensive, on-line data base, accessible to all eligible recipients via the Internet or an 800 telephone number. The independent data base is crucial, because unlike other equipment transferred by the government, computers lose their value quickly. They cannot afford to sit around in warehouses while prospective donees undertake lengthy bureaucratic procedures.

Currently, in the attached draft, this data base is run through the Interagency Learning Technology Office and modeled on a similar ~~program that already transfers educationally useful Federal equipment to universities.~~ One question for us to address is the appropriateness of ILTO to serve as the central agency for our purposes.



The Executive Order would also address, although on a smaller scale, the other three pillars of the Administration's Educational Technology Initiative. Specifically, it would:

- Encourage Federal employees who have computer expertise to help train America's teachers, and to give them ongoing technical assistance.
- Encourage such employees to help connect America's classrooms, using Federal time and resources if available.
- And, although nothing in the Order expressly addresses the Content portion of the Initiative, the establishment of the first three pillars – computers in the classroom, teacher training, and connectivity – will make the private educational software market ripe for creating engaging, meaningful, children's software.

After comments from this Working Group, OVP will send this Order to the Office of Legal Counsel at DOJ to iron out its legal wrinkles. Then, it will go through the larger OMB circulation process. We look forward to hearing your comments.

EXECUTIVE ORDER

EDUCATIONAL TECHNOLOGY: ENSURING OPPORTUNITY FOR ALL CHILDREN IN THE NEXT CENTURY

In order to ensure that all American children have the skills they need to thrive in the information-intensive twenty-first century, the Federal Government has committed to work with the private sector to guide four major developments in American education: 1) making modern computers an integral part of every classroom; 2) providing teachers with the training and assistance they will need to use new technologies effectively; 3) connecting classrooms to the emerging National Information Infrastructure; and 4) encouraging the creation of educational software as engaging as the best video game and as inspiring as the finest tutor.

With this Executive Order, the Federal Government commits its own, limited resources to these four vital developments. First, the Order streamlines the donation of excess Federal computer equipment to all of our nation's classrooms, including pre-kindergarten, for instruction in every subject. This provision reflects the Federal Government's commitment to let no American child start school behind, and to provide that once in school, all students benefit from computers in every field of study. The Order further encourages the donation of excess Federal computer equipment to other community-based educational organizations besides schools, in recognition of the fact that so much learning takes place outside of class.

Second, the Order provides for the donation of Federal time, energy, and expertise to teacher training. Teachers are the key to unlocking technology's power to enhance students' opportunity in the twenty-first century. Teachers must receive all the training and assistance they need to make full use of new and emerging technologies.

Third, the Order encourages the use of Federal expertise and resources to help support the private sector's commitment to connect classrooms to the National Information Infrastructure. Once the hardware, teacher training, and connectivity are in place, the Federal Government believes that the market will be ripe for the crucial, fourth development: the creation of modern, excellent software that will help prepare America's children for the technology they will encounter in the workplaces of the twenty-first century.

Accordingly, by the authority vested in me as President by the Constitution and the laws of the United States of America, including the provisions of the Stevenson-Wydler Technology Innovation Act of 1980, as amended [15 U.S.C. 3701, *et seq.*], and the Federal Property and Administrative Services Act of 1949, ch. 288, 63 Stat. 377 (codified as amended in scattered sections of the United States Code), it is hereby ordered as follows:

Section 1. Efficient Transfer of Educationally Useful Federal Equipment, Upgraded When Necessary, to Schools and Other Community-Based Educational Organizations

(a) To the extent permitted by law, all executive departments and agencies (hereinafter referred to as "agencies") shall give highest preference to schools and other community-based educational organizations in the transfer or donation of educationally useful Federal equipment.

(b) Agencies shall give particular preference to schools and other community-based educational organizations located in Enterprise Communities and Empowerment Zones.

(c) Each agency shall, to the extent permitted by law, identify educationally useful Federal equipment that it no longer needs and transfer it to a school or community-based educational organization by:

(1) Conveying research equipment directly in accordance with the provisions of subsection 3710(i) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended [15 U.S.C. 3710(i)]. The transfer of such equipment shall be reported to the Interagency Learning Technology Office (ILTO);

(2) Reporting excess equipment to the GSA for donation when declared surplus in accordance with the provisions of section 203(j) of the Federal Property and Administrative Services Act of 1949, as amended [40 U.S.C. 484(j)]; or

(3) Conveying equipment, either directly or through GSA, to a non-profit reuse or recycling program that will promptly upgrade or refurbish it for transfer to a school or community-based educational organization pursuant to this Order.

(d) All transfers to schools or community-based educational organizations, whether made directly, through GSA, or through a non-profit reuse or recycling program, shall be made at the lowest cost permitted by law.

(e) The availability of educationally useful Federal equipment shall be made known to recipients under this Order by all practicable means, including the on-line data base [NAME], designed and monitored for this purpose by ILTO. ILTO shall further:

(1) issue guidance for use of this data base to agencies and recipients under this Order;

(2) oversee the collection of data concerning the availability and transfer of all educationally useful Federal equipment pursuant to this Order;

(3) provide a standardized gift agreement for use by the agencies; and

(4) serve as the sole authority on the kind and type of educationally useful Federal equipment made available regardless of standard Federal classification, or whether it be capitalized or non-capitalized, or reportable or non-reportable.

(f) The Department of Energy shall provide technical support to ILTO for the dissemination of information concerning available Federal educationally useful Federal equipment. It shall be reimbursed by ILTO for this service. In addition, the General Counsel of the Department of Energy shall serve as counsel for this executive effort, and the Program Manager of the Department of Energy's personal property programs for the academic community shall serve as director of implementation at ILTO.

(g) A third-party non-profit organization may serve as fiscal agent for efforts for ILTO to foster financial and in-kind participation from the private sector. Support may also be acquired through use of existing arrangements at agencies participating with ILTO.

Section 2. Training Teachers; Connecting Classrooms

(a) Each agency that has employees with expertise in computer operations shall, in accordance with the guidelines of the Office of Personnel Management, provide and encourage brief periods of excused absence for those employees to volunteer time and resources to:

(1) help connect America's classrooms to the National Information Infrastructure;

(2) help supplement teacher training, preferably in partnership with universities, State and local school authorities, corporations, and other community-based organizations; and

(3) provide ongoing maintenance and technical assistance for the recipients of educationally useful Federal equipment pursuant to this Order.

(b) Each agency described in subsection (a) shall submit, within 6 months of the issuance of this order, an implementation plan to advance the developments described in this Order, particularly those required in this section. The plan shall be consistent with approved agency budget totals and shall be coordinated through ILTO.

(c) Nothing in this Order shall be interpreted to bar a recipient of educationally useful Federal equipment from lending that equipment, whether on a permanent or temporary basis, to a teacher, administrator, student, employee, or other designated person in furtherance of educational goals.

Section 3. Definitions. For the purposes of this order:

(a) "Schools" means individual public or private education institutions encompassing pre-kindergarten through twelfth grade, as well as public school districts.

(b) "Community-based educational organizations" means non-profit, local or statewide entities that are engaged in collaborative projects with schools or that have as their primary focus the education of children of school age. Such organizations shall qualify as non-profit educational organizations for purposes of section 203(j) of the Federal Property and Administrative Services Act of 1949, as amended. Their activities shall further qualify as technical and scientific education and research activities for purposes of section 3710(i) of the Stevenson-Wydler Technology Innovation Act of 1980.

(c) "Educationally useful Federal equipment" means computers and related peripheral tools, including telecommunications and research equipment, that are appropriate for use in pre-kindergarten, elementary, or secondary school education.

(d) "Non-profit reuse or recycling program" means an organization able to upgrade computer equipment at no or low cost to the school or community-based educational organization that will eventually take title to it. Such organizations shall constitute non-profit educational organizations for purposes of section 203(j) of the Federal Property and Administrative Services Act of 1949, as amended. Their activities shall further qualify as technical and scientific education and research activities for purposes of section 3710(i) of the Stevenson-Wydler Technology Innovation Act of 1980.

THE WHITE HOUSE

WASHINGTON

November 9, 1995

MEMORANDUM FOR GENE SPERLING

FROM: Paul Dimond
Mike Schmidt

SUBJECT: Schedule of Meetings on Possible Federal Actions on Educational Technology

CC: Bill Curry
Greg Simon
Jonathan Sallet
Henry Kelly

As you know, we have held a series of meetings to reach decision points on the possible federal actions on educational technology that have been proposed over the past few months. These meetings were small meetings between the WH offices participating on the Ed Tech Work Group (DPC, NEC, OMB, OSTP, OVP) and the agency officials responsible for each individual issue. At this point, the proposed actions fall into three categories:

- Issues that are ready to go and require no action by the NEC Principals
- Issues that require action/resolution by the WH and/or the NEC Principals
- Issues that are still pending or that only time will resolve

I. ISSUES THAT REQUIRE NO ACTION BY THE NEC PRINCIPALS

Issue: ***Strong Presidential statement supporting the Snowe-Rockefeller amendment and expansion of Universal Service provisions in the telecommunications bill.***

Summary: The Snowe-Rockefeller Amendment and the Universal Service Trust Fund provisions in the current Telecom Bill will lower the costs for schools and classrooms to connect to and to use the Information Superhighway. These provisions could cut the costs to schools and classrooms by a significant amount, compared to businesses.

Status: We have and will continue to publicly support the Snowe Rockefeller Amendment as a part of the Telecom Bill. The current version of the amendment does include language that could be interpreted by the FCC to allow the USF to be used for inside-the-school wiring.

Issue: Request that FCC set aside a specific piece of spectrum for educational use

Summary: Send a strong letter to FCC requesting that a specific piece of spectrum be set aside (*the "NII Band"*) which can be used to (i) lower the cost of internal networking for schools with difficult installation problems and (ii) lower the cost of connecting rural schools.

Status: The Department of Commerce will send a request to the FCC supporting the proposal to set aside this piece of spectrum.

II. ISSUES THAT REQUIRE SOME ACTION/RESOLUTION BY THE WH OR THE NEC PRINCIPALS

Issue: 21st Century Schools -- Department of Defense:

Summary: Direct the Department of Defense to transform its Department of Defense Dependant Schools (DoDDS) -- 172 overseas for 82,000 dependent children and 65 State-side for 33,000 dependent children of our families in service -- into cost-effective *models for the Nation's 21st Century Schools*. Demonstrate how computer-based learning can be systematically designed, developed, and integrated in a large K-12 school system that spans the globe in order to significantly improve student achievement and performance across all academic areas and at each grade level. The goal is to have an hour of interactive courseware per day used at every grade level and to promote additional interactive discovery, research and expert tutoring on the education resources available on the internet.

Status: We met with Lou Finch and his colleagues from DOD to discuss potential actions that DOD could take to support the President and Vice President's Educational Technology Initiative. The potential additional cost that would be needed is fairly modest. There was general agreement at this meeting that the proposal to transform the Department of Defense Dependant Schools (DODDS) into models for the nation's 21st Century Schools has a good chance of being approved by DOD.

Action Needed: In order to reach a final decision, Laura will have to put in a call to Deputy Secretary White to indicate the importance the President and Vice President place on the Educational Technology issue, and our desire to see this DODDS Schools initiative be a part of our announcement of the National Public-Private Plan.

Issue: Announce Second Round of the Technology Learning Challenge II and expand to Pre-School:

Summary: (a) Expand the TLC to include pre-school. (b) FY 97 Budget request of \$75 million, up from our request of \$50 million in FY96.

Status: There is agreement from both DoEd and HHS that this is the right step to take for FY 1996. HHS has already been working with DoEd to make sure that the next round of TLC grants will include language on including pre-school children in any new grant proposal. We asked DoEd to come back to us with two documents in this area:

1. A recommended timeline for the TLC II rollout (now projected for announcement in January), complete with an alternative "Plan B" timeline for a December announcement;
2. A summary of the major themes of the TLC II grant application (how will we focus on pre-school children and still build off of existing application requirements).

Action Needed: We need to get as close to the President's FY96 \$50 million request for TLC II as possible or it will not be able to fund any new applicants in the FY96 appropriations battle: This must be a priority on the WH budget negotiation list for FY96. If we are left with something in the \$15-20 million range, as the current Labor/HHS appropriations seem to be heading, these funds will only go to funding year 2 of the 1995 first-round TLC grants and there will not be enough left to fund any significant number of new projects. (DoEd and HHS will cooperate with the current TLC winners who wish to add a pre-school component. With respect to FY97, the real decision is whether to use TLC authorizing provisions to appropriate \$500 million per year to support 50 state TLC matching funds)

Issue: Direct agencies to actively participate in the Tech Corps

Summary: Issue a Presidential Directive that directs agencies to actively participate in the Tech Corps to the full extent that their mission and budgetary authorities allow (this will enable the government to participate in Tech Corps at the same level as the private sector).

Status: According to existing Personnel laws and regulations, Federal Employees already have the ability to volunteer in schools and other non-profit entities on company time for a limited number of hours when approved by the agency head. So no Presidential Executive Order is needed here.

Action Needed: The Working Group recommends that we have some sort of Presidential Directive (a memorandum or letter to the heads of agencies) encouraging the heads of federal agencies to allow their employees to actively participate in Tech Corps and other related volunteer activities in their local schools to help schools integrate technology into the classroom. Working Group members also recommend that agencies have some sort of active encouragement to have their employees participate in such a program -- perhaps some sort of Presidential or Vice Presidential recognition or award for the best agency program in this area (similar to the VP's Hammer Awards for Reinventing Government). Draft language for this Directive is being prepared by OVP and should be ready by next week for our review.

Issue: Streamline federal donations of computers

Summary: Issue an Executive Order that directs federal agencies to streamline their donation of computers and other technologies to schools to ensure that federal contributions can be made as easily as private contributions.

Status: President Bush signed an Order on this subject in November of 1992. However, this order is narrowly targeted at only science and technology agencies (mostly DoD, Energy, and NASA) and has not been very effective in getting high quality equipment into the schools. Moreover, it puts agencies in the position of being viewed as "dumping" obsolete equipment into the schools. The Vice President's Office has been working on a draft Executive Order that would enable all federal agencies to donate used equipment to a group of non-profit entities that take used computers and upgrade them to make them Internet-capable and ready for use in the classroom. This draft order would also expand this initiative to all agencies in government, not just science and technology agencies.

Action Needed: The Vice President's Office promised to have the draft order ready for review by the end of this week. **The Working Group recommends beginning to formally review and clear this order for issuance at whatever roll-out event we end up doing.**

Issue: Issue an executive order establishing the Interagency Learning Technology Office

Summary: Issue an Executive Order formally establishing the ITLO at the Department of Education that would allow it to (a) focus the currently scattered and duplicative federal research and state-of-the-art demonstration programs for education technology in DoD, NASA, DoEd, NSF and other technology agencies -- working in cooperation with the private sector and educators -- on topics of value to public schools; (b) in cooperation with private developers, conduct an advanced demonstration in each of three areas -- pre-school, K-12, and school-to-work; and (c) work with the private sector and the States to get the results of existing and future research marketed to schools, students, and parents.

Status: The ILTO issue is a controversial issue among Working Group participants. All of the meeting participants agreed that there needs to be some role for coordinating Federal R&D in the area of educational technology, and that the ILTO structure already up and running informally at DoEd seems to be the right approach. However, there is some concern that we would be sending the wrong message by making this one of the "Federal Actions" that the President and Vice President hold up as a part of the public-private partnership when it is announced -- the fear is that it will look like we are endorsing the formation of a new bureaucratic structure, or a "typical big government solution" to this issue. The message that needs to get across, but would likely get lost here, is that this organization is needed to focus existing Federal R&D activity (which is scattered across many agencies) and act as a bridge to the private sector in this area.

Action Needed: A consensus recommendation was reached by the Working Group participants: **that we move ahead quietly with an Executive Order that formally creates the ILTO entity (needed for continuity and personnel reasons), but don't make this one of the actions the President and Vice President hold up as a part of their public-private partnership.**

III. ISSUES THAT ARE STILL PENDING OR THAT ONLY TIME WILL RESOLVE

Issue: Establish federal funding for 50 matching, State Technological Literacy Trust Funds:

Summary: The diverse federal actions described in this document will help stimulate major private sector actions to assist in lowering the costs to schools, but there will still be significant start-up and on-going costs. As a result, financing matching funds -- that encourage each state (and local districts) to reprioritize their own investments in educational technology in partnership with the private sector -- may be influential. This may be particularly important -- as provided in the TLC authorizing legislation -- to making sure that state-local-private consortia are formed within states so that potential "have-not" districts and schools are not left out of the education technology revolution.

Status: On Friday of last week, Mike Smith made a presentation on the trust fund issue to Ken Apfel, Greg Simon, Paul Dimond, Jonathan Sallet, and other members of the Ed Tech Working Group. He put forward a very credible framework for financing a trust fund that the group agreed should be followed up in more detail:

- On the **Connections** Pillar, Mike argues that between actions being taken by the private sector (e.g. NetDay, ATT) and, more importantly, the changes that will likely come through the Telecom bill and its changes to the Universal Service Fund, the Federal Government will not have to put forward any funding for connecting schools and classrooms.
- On the **Computers** Pillar, Mike proposes that we target grades 4-12 (with the assumption that older machines, or a new generation of cheaper learning levers, will work their way in to the lower grades). Assuming 1 computer for every 4 students (which the pedagogical literature strongly suggests), and a price range of \$1000 - \$1500 per machine, he comes up with a total cost of **\$7.5 billion** for computers and **\$1 billion** for printers over 5 years.
- On the **Teacher Training** Pillar, Mike assumes a total cost of \$1000 per teacher. However, he also assumes that \$400 of this cost will be borne by the computer manufacturers and other sources in free technical training (e.g. how to send an e-mail, how to get on the internet). That leaves \$600 per teacher, and with 2.25 million teachers

nationwide that comes to **\$1.5 billion** to train every teacher over 5 years. After this one time cost, continuing professional development on educational technology will proceed as part of the work of teachers.

- On the **Content Pillar**, Mike argues for the need for approximately **\$500 million** over 5 years to stimulate new ideas (TLC grants, Star Schools, etc). OMB proposes that each computer will need approximately \$500 in software, so that comes to **\$3 billion** over 5 years.

In all, Mike's figures add up to a **total cost of \$13.5 billion over 5 years**. At a 5-to-1 match, that comes out to **\$500 million per year over 5 years in federal funds** (\$2.5 billion) to leverage an additional \$12.5 billion in State and Local match. This federal figure is much more manageable than the higher figures that have been discussed over the past few weeks.

The meeting participants were intrigued by Mike's proposal and will be meeting again early next week to flesh this proposal out in more detail. OMB will run a side-by-side of Smith's proposal with the Rand and McKinsey study numbers for this meeting.

Issue: A Learning Lever for Every 5th Grade Student

Summary: News reports of the California CEO meeting with the President indicated that the heads of Oracle and Sun agreed to produce an interactive terminal to connect each student to the Internet for a price of \$500 per unit. Assuming this price point, it would require approximately [\$x] per year to provide the [y #] of indigent 5th graders (measured by reduced or free lunches) with such a computer, starting in 1998. This could stimulate the market for providing such learning levers to all students entering the middle grades. We could make the provision of such a computer terminal for every such indigent fifth grade student a condition of continued federal financing of the matching Education Trust Fund, starting in 1998; or provide separate federal funding for every such indigent student, beginning in 1998

Status: **The status of this initiative will depend on the outcome of the trust fund discussions.** DoEd has not done any significant thinking on this issue, and we have asked them to prepare a list of options, complete with pros and cons, by the end of this week. However, it seems that there are really only three routes to take on this:

1. If a Trust Fund is created, include this as a state condition of continued federal financing of the matching Education Trust Fund.;
2. Work Legislatively to create some kind of requirement that a portion of Title I funding be used to purchase such a learning lever for Title I eligible students, or;
3. Impose no new Title I requirement but work with Title I providers to encourage them to form technology purchasing consortia that could contract for and purchase such learning levers.

As you can imagine, Option #2 would create all sorts of problems -- not only would we be fighting a tradition of federal non-interference in the way local school districts spend Title I funds, but we would also be contradicting our own "ReGo II" efforts over the past year to roll back burdensome federal regulations. On the other hand, if the Option #1 trust fund is pursued, it may be funded under the TLC provision of ESEA anyway.

Issue: Learning Levers for Every Head Start Student

Summary: Budget funds to help pay for **interactive learning levers** for new Head Start participants beginning in 1998. These educational learning tools could be used both at home or in the Head Start centers.

Status: HHS has a serious objection to this proposal, and it is our opinion that if we wanted to accomplish something in this area someone at a high level at the WH would have to go to the mat with Secretary Shalala. Peter Edelman has agreed to sit down privately with you and Paul to discuss this issue at greater length. In their defense, HHS does have a strong, non-budgetary argument for why they oppose this provision: Unlike the discussion of a learning lever for children at the 5th Grade level, at this time it is not clear to anyone in the public or private sector what the learning levers for preschool children might be, not to mention what is should accomplish. Instead, HHS proposes their participation in the TLC II on this small scale before considering a more serious budgetary commitment.

In our opinion, in order to stimulate relevant commitments to develop pre-school learning levers, Peter's argument is correct.

Issue: *Bring the Smithsonian to Your School: Announce a new policy allowing cost-shared partnerships*

Summary: Establish a cost-shared program to bring the rich collections of the Smithsonian, the National Park Service, and the National Archives, for example, to the classroom through digital means. To accomplish this, announce a new policy allowing partnerships with publishers to digitize and distribute federal cultural collections granting them rights to the digital collections, and the logo of the institutions, for a fixed period [e.g. 1-2 years]

Status: Smithsonian Secretary Heyman is committed to this issue and has been reaching out to the private sector for the past year to explore potential partnerships in this area. He is ready and willing to stand with the President and Vice President and make this willingness to work with the private sector clear. However, this announcement would be much more effective and newsworthy if he (or the POTUS) could announce a major private sector partner that has "signed on" as a corporate partner. Over the next few weeks, we will work to make sure the Smithsonian is plugged in to our outreach efforts with the private sector in an attempt to help broker a possible partnership on this issue.

PBS Issue 1: Recharter PBS for the 21st Century Announcing its Intention to Use Interactive Technologies to Deliver Educational Materials to Homes and Schools

Summary: There seems to be strong consensus among PBS stations that public broadcasting would benefit from a renewal of its mission, and that the information technology revolution provides a good opportunity to do this. PBS stations are proud of their record of innovation in broadcasting and would like to branch out into new media -- including the use of the internet and digital TV broadcasting.

Status: A rechartering effort could strengthen PBS' position politically. Congress backed off from its attempt to eliminate funding for public broadcasting, but they have not found an acceptable way to provide support. **The primary concern raised about a major Presidential announcement rechartering PBS is that it would create expectations that can not be met unless a secure source of funding for this effort is located.** Funds are needed to a) purchase the capital equipment needed to convert to digital communications over the next decade and b) pay for broadcast bandwidth if all or part of the broadcast spectrum is auctioned off. **A wide variety of funding mechanisms have been proposed, but all are tightly coupled with the resolution of the larger question of how to allocate the broadcast spectrum. The central question is whether it makes sense for the President to announce a rechartering of PBS before a decision is reached about the broadcast spectrum and funding.**

PBS Issue 2: Announce TeacherNet, World Wide Classroom and Other Interactive Learning Initiatives

Issue: PBS is already actively developing a system called MathLine that helps math teachers upgrade their skills using videotapes and internet communications. They are anxious to provide an expanded "TeacherNet" and "KidsNet" service to help both teachers and students use interactive technologies to learn in a wide variety of subjects and are actively raising money for these experiments. One of these services is the creation of a virtual Worldwide Classroom on the Internet (e.g., to connect students at a distance in research with one another and with experts in a variety of fields), and also an expansion of their charter to make clear that they will use their piece of the spectrum in local communities to provide engaging and interactive educational content to schools, day care centers and homes (e.g., Big Bird and Barney interactive learning games).

Status: The challenge here is to secure funding for this initiative (either through spectrum methods or through PBS-private sector partnerships). Over the next few weeks, we will be working in our outreach activities to try and connect PBS with interested corporate partners to pursue these initiatives.

Other Minor Issues That Will Be Decided Soon

- **Internet Games:** The President could challenge students to compete in a series of educational contests over the internet loosely patterned after the Olympic Games.
- **Presidential Awards for Innovative Use of Technology for Education:** The Smithsonian and Computer World Magazine have hosted a small award program in this general area for the past seven years. It could be greatly expanded if elevated to the stature of a Presidential Award.

DATE: November 21, 1995
TO: Gene Sperling
FROM: Paul Dimond, Mike Schmidt
RE: Educational Technology: the TLC and the FY 96 Budget Negotiations

The Department of Education has put together the following one-and-a-half pager on our desired FY96 request for the Technology Learning Challenge (\$50 million) and an explanation of why this level is critical. Please take a look at this ASAP -- we wanted to make sure that this information is somehow integrated into the FY 96 budget negotiation process that is currently underway. Thanks.

Challenge Grants for Technology in Education FY 1996

Rationale for Presidential Support

1.) Challenge Grants deliver on the President's commitment to stimulate partnerships between business and education that will bring the Information Superhighway to our schools by the year 2000. These grants have brought about new corporate partnerships that the President can stand with. Challenge Grants make the rhetoric become reality.

2.) The 1995 round of competition generated grass roots support in every community and region of the country. The 530 applicants included close to 2,700 school districts. The final 19 grant awards included 153 school districts in 23 states with 120 business partners.

3.) The 1995 Challenge grants provided the basis for a major media event on October 10, 1995, with national coverage in Washington and extensive local coverage in the 19 Challenge Grant communities across the country. A second round of the competition in 1996 could provide national press in January, when the competition is announced, and in October, 1996 when as many as 40 new grants could be announced.

Recommendation:

In final 1996 budget negotiations, the President should request \$50 million for the Challenge Grants.

Time Frame and Scope of the 1996 Challenge Grant Competition

SCHEDULE: The new competition could be announced in January at or around the State of the Union address.

At least 2,000 pre-applications would be received in March 1996 (submitted by 2,000 school districts in as many communities across the country).

By the end of April, 200 of these applicants would be asked to submit full proposals by mid-June 1996. These applications would be reviewed during July and August of 1996, leading to negotiations in September 1996, and a major announcement in early October of 1996.

NUMBER OF AWARDS: Any budget scenario requires at least \$15 million of 1996 money to continue the current 19 grants.

1.) If the President secures \$50 million for K-12 Challenge Grants, \$35 million would be available for approximately 40 new grants. This would be twice the number of 1995, and together with the 1995 awards it would establish approximately 60 communities that would be prime sites for visits and media coverage in the fall of 1996. These 60 grants would include approximately 400 school districts in almost every state, along with several hundred business firms as partners. These awards would make it clear that the President and this Administration is

very serious about bringing new technologies into our schools.

FY 1995 New Awards

\$9.5 million was awarded to 19 Challenge Grant winners. These funds will support the first six months of each project (Oct. 1 to March 31).

FY 1996 Continuations

A minimum of \$15 million is needed to continue the FY '95 Challenge Grants for another nine months (April 1 to December 3, 1996). These projects will then move onto full 12 month funding with FY 1997 funds.

FY 1996 New Awards

An appropriation of \$25 million would allow \$10 million for a second round of Challenge Grants for 20 new grants to be awarded during the fall of 1996. Funds would support the first six months of these projects - as in 1995. An appropriation of \$50 million would allow \$35 million for approximately 40 new grants.

House Impact

The House mark of \$25 million for Challenge Grants would be sufficient to support both the continuation costs of \$15 million and the new award costs of \$10 million.

Senate Impact

The Senate mark of \$25 million sets aside \$10 million for Regional Technology Consortium grants. If this happens, we would be able to meet the Challenge Grant continuation costs of \$15 million, but we would be forced to terminate the second round of the Challenge Grant competition for FY 1996.

Department of Defense Education Activity (DoDEA) A MODEL FOR THE 21ST CENTURY SCHOOL

Model of 21st Century School: Today's public schools need exemplars of 21st Century Schools. They need to know how to put together the critical components -- computers, network connections, teacher training, and software with high-learning content. They need a demonstration that, when these components are tied together, they will boost learning performance, and over time, reduce cost. The Department of Defense Education Activity (DoDEA) provides an opportunity to meet these needs. This system is a place where we can create a model 21st Century School, and do so as a cost-effective way to meet DoD's obligations to maintain an attractive quality of life for the families of those who serve in uniform.

Role of the Department of Defense: DoD is a logical agency to create a model 21st Century School for two reasons. First, DoD has rich experience in using learning technologies. It has been proven that these technologies are a cost-effective way to train our military for its warfighting missions. DoD is well positioned to apply this learning technology know-how to its schools. Second, DoD is committed to providing a quality of life for our service members that's attractive enough to recruit and keep high-quality personnel -- the foundation of our warfighting capability. An essential ingredient of this quality of life is quality education for the children of our service members. If DoD can give its military dependents' children an education that is the quality of a model 21st Century School, it will make military service that much more attractive and help keep the high-quality people that populate our force today.

Role of the Private Sector: DoD will carry out this program to support its core mission. It is, however, neither DoD's nor the Federal Government's job to develop and market the main products of this program -- high-quality learning content software that covers the broad range of subjects in a typical K-12 curriculum, and has the motivational power of the most popular video games. That is the job of the private sector. Thus, the approach here is to rely on private companies to provide off-the-shelf learning software for those courses where it exists, and to develop it where it doesn't. Aside from supplying DoD's needs for products to support its 21st Century Schools, private companies would be allowed to produce and competitively market these products to schools and homes throughout the country.

Specific Actions:

- Use DoDEA as the model for the Nations 21st Century Schools: demonstrate how computer-based learning can be systematically designed, developed, and integrated in a large K-12 school system to improve significantly student achievement across all academic areas and at each grade level. The goal is to integrate interactive courseware geared to established national education standards across the K-12 curriculum and at every level by the year 2000. To be effective, this courseware would be used as an integral part of instruction for a minimum of one hour per day.
- Ask DoDEA to also support teacher technology training and preschool modules.
- Establish a comprehensive plan to provide basic network connections to DoDEA schools and classrooms - - ensure that a representative sampling of schools is fully connected and available to support development and testing of the interactive curriculum.

- Establish a team of DoDEA educators to work with the courseware developers.
- Establish cooperative development contracts with software developers in order to share development cost. Obtain rights for DoDEA use -- permit industry to sell to a wider market.

Background

- DoDEA has developed a comprehensive community strategic plan and vision for education which incorporates the integration of technology as a major component of the curriculum.
- DoD Dependent Schools (DoDDS), which is the overseas component of DoDEA, consists of 172 K-12 schools with about 82,000 students.
- The US component of DoDEA, DoD Elementary and Secondary Schools, consists of 65 schools with about 33,000 students.
- DoDEA is already using learning technology in their schools and has plans to make significant increases -- if funds can be made available.
- Personnel Support, Families, and Education (PSF&E), (the DoD Activity that manages DoDEA), also oversees the DoD child development (Pre-school) program.
- DoDEA has already served as a testbed for demonstrating the insertion of leading edge information technologies into the school setting. Working with Defense agencies and the OSTP, a collaborative learning environment for physics-based curricula was demonstrated using advanced network technologies.
- Additional technology insertion programs are currently underway in the DoD Dependent Schools under the auspices of the Advanced Research Projects Agency and the National Science Foundation. A principle goal of these programs is the evaluation of the efficacy of the technologies and their effect on learning outcomes.

Assumptions

- The goals of this initiative directly support DoD's warfighting missions by improving the quality of life of service members' families, and are compatible with those of the DoDEA community.
- K-12 curriculum standards and training objectives already exist and can be used in the Request for Proposal (RFP).
- One hour of interactive curriculum used throughout the school day at each grade level is an appropriate target.
- 40 hours of staff development will be necessary to prepare teachers to use interactive technology in the classroom.
- 20-30 hours of early childhood education materials will also be developed as a part of this effort.
- Integral to the development effort will be a comprehensive evaluation of the cost-effectiveness of the individual lessons and their overall impact on student performance. A multi-year DoDEA strategic plan exists to meet the 21st century standards.
- DoDEA is in a unique position to benefit from technological advances in interactive technology already developed within the Department of Defense.

Estimate of Total Curriculum Development Costs

- Going rate for interactive curriculum is about \$20K per hour.
- Total development cost (for 2230 lessons) would be \$44.6M.
- To meet full implementation by the year 2000, approximately \$14.86M will be needed per year for the first 3 years.

Incentives to Industry to Lower the Cost to DoD

- It may be possible to reduce DoD's acquisition cost of \$44.6M by 20-50%.
- Software developers have a great interest in expanding their market, especially to the national network of public and private schools.
- DoD will offer software developers the rights to sell CD-ROM versions of the programs to the non-DoD market in return for either a royalty or for reduced acquisition costs.

Issues and Rational

- Why divert military funds to support the administration's education agenda?
 - - This proposed initiative is intended first to serve directly DoD's mission, but with the potential to help schools throughout the nation. Improving the quality of education available through DoDEA is a Quality of Life issue that meets an important DoD objective -- recruiting and retaining high-quality service men and women. Members of the US military need to know that the education of their children is of primary concern to the Government they serve. Decisions to re-enlist are heavily influenced by factors affecting the entire family. Because military schools abroad are frequently located in small isolated communities, they have special needs for high-quality learning resources.
- Why is the Federal Government working on a Core Curriculum. Isn't this a State and local issue?
 - - Curriculum is a matter for the communities. DoD's schools are a community, and DoDEA has and will continue to develop a curriculum appropriate for this community. While DoD is willing to share its curriculum, public schools need to make their own decisions based on what best meets the needs of their students.
- Will the software developed for DoDEA be useful for other schools that use a different curriculum?
 - - Software developers will make this software available to those schools or families who wish to pay for it. An additional set of tools should be available to permit modification of the courseware to meet local needs.
- Who in DoD will evaluate the effectiveness?
 - - DoD will evaluate the effectiveness of individual lessons as well as overall student performance across the entire course of instruction. When lessons are accepted and implemented in DoDEA, DoD will assess their efficacy.
- How will this be managed within DoD?
 - - A program element will be established in OUSD(P&R) PSF&E. The existing DoDEA Technology Advisory Group will be supplemented by representatives from DoED, Teachers Groups, and other key DoDEA stakeholders and will oversee the development of courseware. DoDEA and the steering group will provide guidance to the DoDEA Interactive K-12 Curriculum project. The Oversight Group will: 1) help organize and review the K-12 training objectives and standards; 2) provide input to the training development contractor; 3) assist in evaluating proposals; 4) attend in-progress reviews; and 5) participate in the evaluation. DoDEA will administer the funding for the development of courseware and staff training.

Possible private sector commitments to support Educational Technology Initiative

I. Leadership

1. Leadership at national level

- Encourage other companies and industry associations to get involved
- National Board of organization such as TechCorps

2. Leadership at state or local level

- Organize a state TechCorps or NetDay
- Be an advocate for funding at state and local level
- Help generate regional awareness through events, demos, press briefings, op-eds
- Develop a server that gives everyone on-line access to the current level of deployment of educational technology in a particular state

II. Connectivity

[Note: Connectivity has three parts: local-area network, wide-area network (dial-up, 56K, ISDN, T1, hybrid fiber-coax, etc.) and service (Internet, commercial on-line service, video dial-tone)]

1. Endorse the principle that schools should be considered residences as opposed to businesses. [Further discounts may be necessary, but should start from residential rate as opposed to business rate.]
2. Organize effort to design and deploy internal networks
3. Free or discounted connections [PacBell Education First, Bell Atlantic Basic Education Connection, GTE -- free ISDN]
4. Free or discounted Internet or on-line service [efforts by AT&T and AOL in California]
5. Expansion of the "Cable in the Classroom" program to include high-speed data/cable-modem technology.

III. Content

1. Partnerships with public institutions [Library of Congress, Smithsonian, science museums, National Archives]
2. Help support efforts to organize and expand learning resources in specific subject areas [e.g. Geometry Forum, Genentech's resource for high school biology teachers]
3. Donation or aggressive pricing of authoring tools to encourage teachers to develop and share content
4. Support for new PBS entity
5. Efforts to create communities of learning [mentoring, interaction between local community and school, development of collaborative environments such as MUDs and MOOs, collaborative project-based learning]
6. Contests: [Sun's awards for Java applets, MCI-Cisco International Cyberfair for Schools]
7. Development of content for different platforms [e.g. Sega, Nintendo for games, interactive TV, Internet, CD-ROM]
8. Multicast regularly updated "Best of the Web" to caching sites around the country [Satellite industry]
9. Rapid deployment of filters and rating services to block access to inappropriate material [World Wide Web Consortium PICS effort]
10. Networked scientific instruments and supercomputers [virtual science labs]

IV. Personal Computers

[Hardware includes not only PCs, but modems, routers]

1. Educational discounts and donations
2. Refurbishment of old PCs
3. Aggressive marketing of low cost (\$500) Internet access devices and other low cost information appliances. [This is a business decision but will certainly support the goal]

V. Professional Development

1. Partnerships with local universities and teachers' colleges
2. "Train the trainers" initiative [U.S. West's effort to directly reach at least 1 percent of the teachers in their region]
3. Training at company facilities during summer
4. Development and distribution of videos, CD-ROMs etc. for teacher training

VI. Other

1. Development of high-quality "how to" material for local communities
2. Evaluation
3. Pedagogical research (Apple's ACOT, corporate sponsorship of Institute for Research on Learning)
4. Development of next-generation tools for learning
5. Exploration of different business models [aggressive pricing in schools leads to increased demand in homes, cooperative purchasing by schools, keeping schools open longer to allow use by community]

Points to make in outreach

1. Administration needs feedback on federal policy options
2. We don't expect private sector to do this on their own -- we need a partnership between government, private sector, parents, educators, etc.
3. How do we make the whole of the private sector efforts greater than the some of the parts?

DEPARTMENT OF DEFENSE EDUCATION ACTIVITY (DODEA)

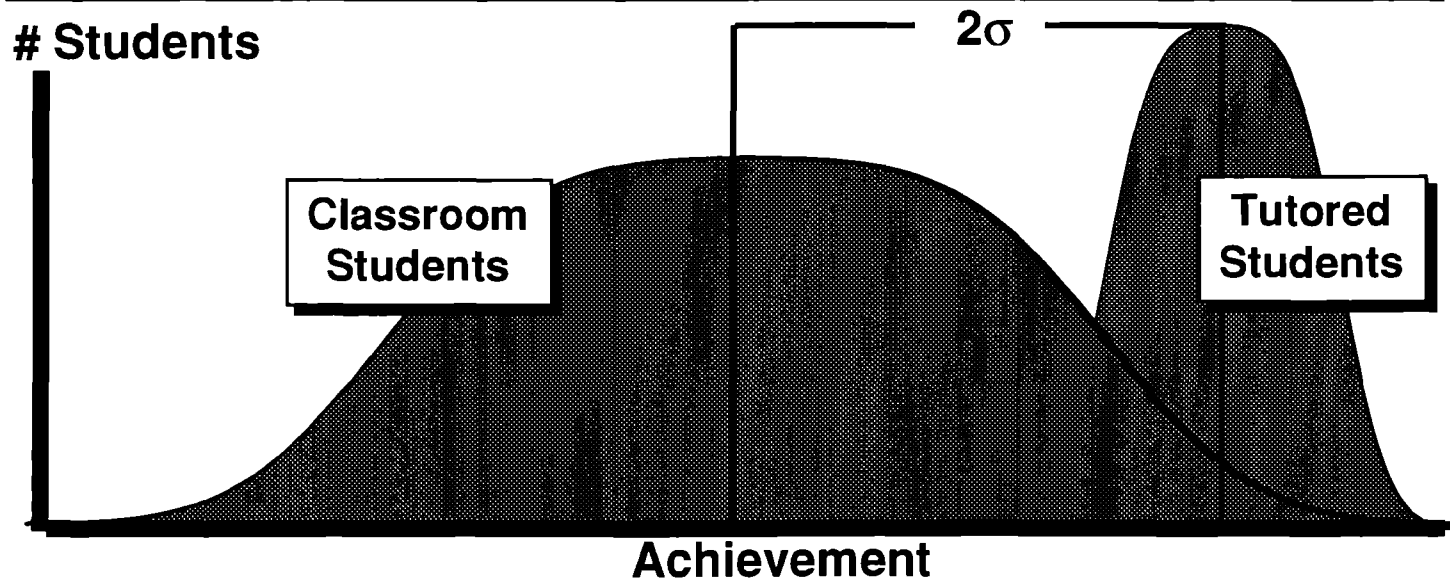
21ST CENTURY SCHOOL INITIATIVE

October 23, 1995

21ST CENTURY SCHOOL INITIATIVE

THE PRIZE

ON AVERAGE, TUTORED STUDENTS SCORE BETTER THAN 98%
OF CLASSROOM STUDENTS -- A 2-SIGMA SHIFT



Adapted From: Bloom, B.S. The Two Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring. Educational Researcher. 13,4-16 (1984)

MODERNIZING THE NATIONS SCHOOLS WILL BE CHALLENGING

- The Nation Needs to Make Substantial Investments in Computers, Networks, Teacher Training, and the Development of Effective Learning Content
- Parents, Teachers, and School Administrators Need Assurance That These Investments Will Yield Positive Results
- Private Industry Needs Incentives to Step Up Development of Exciting and Effective K-12 Courseware Tied to Educational Standards

DODEA IS AN IDEAL TESTBED FOR INFUSION OF LEARNING TECHNOLOGY

- DoD Has Extensive Experience in Developing and Fielding Learning Technology and Is Well Positioned to Apply it's Know-How to Schools
- The DoD Educational Activity Includes 172 Overseas Schools and 65 State-Side Schools With a Total of Over 110,000 Students
- DoDEA Has a Technology Plan and a Community Strategic Plan which articulate the Use of Educational Technology As a Major Component of the Curriculum - - and Is Currently Using Technology
- Quality of Life Is of Primary Interest to DoD in Recruiting and Retaining High Quality Personnel

21ST CENTURY SCHOOL INITIATIVE PROGRAM GOALS

- Demonstrate How Learning Technology Can Be Systematically Designed, Developed, and Integrated Into a Large K-12 School System to Improve Student Performance
- Integrate Interactive Courseware, Geared to National Standards, Across the K-12 Curriculum by the Year 2000
- Provide Teacher Training and Establish Basic Networking to Support Evaluation of Interactive Curriculum
- Establish Cooperative Agreements with Private Industry in Order to Share Development Costs and Stimulate the Commercial Market
- Leverage the Creative Talents of the Nation's Best Educational Software Developers in Order to Produce Highly Motivational and Cost-Effective Courseware

21ST CENTURY SCHOOL INITIATIVE

SPECIFIC OBJECTIVES

- Develop One Hour Per Day of Courseware Tied to National Standards and the Curriculum for Each Grade
- Develop 20-30 Hours of Early Childhood Educational Materials
- Develop 40 Hours of Staff Development Materials
- Conduct Evaluations of the Effectiveness of the K-12 Interactive Curriculum
- Explore Partnerships with Public Schools

21ST CENTURY SCHOOL INITIATIVE

COST AND SCHEDULE

- Estimate \$20K Per Hour (or Lesson)
- Approx 2230 Lessons at an Estimated Cost of \$44.6M
- To Meet Implementation by 2000, Approx \$14.86M Per Year Needed Beginning in FY96
- It May Be Possible to Lower DoD Costs by As Much As 20-50% Through Cooperative Agreements With Industry

21ST CENTURY SCHOOL INITIATIVE ISSUES

- Diversion of Military Funds to K-12
- Federal Involvement in Core Curriculum
- Applicability of DoDEA Effort to the Nations Schools
- Evaluation of Cost-Effectiveness
- Program Management

21ST CENTURY SCHOOL INITIATIVE NEXT STEPS

- **Establish Funding Line**
- **Identify Participating DoDEA Schools and Partners**
- **Coordinate K-12 Training Objectives and Standards**
- **Brief DoDEA Steering Group**
- **Develop Acquisition Strategy**
- **Solicit Ideas From Industry**
- **Prepare Contract Vehicle**

DoDEA & American Education Week

November 12-18, 1995

- **An annual event sponsored by the National Education Association to:**

“Inform the public of the accomplishments and needs of the public schools and to secure support in meeting those needs”

- **DoDEA will host a celebration of Education week on November 17 at the Pentagon**
- **Activities will include:**
 - **Exhibits of DoDEA student work**
 - **Demonstrations of Education Technology**
 - **DoDEA student performances**

October 27, 1995

Mr. Paul Dimond
Special Assistant to the President
OEOB 17th Street and PA Avenue
National Economic Council - Rm. 225
Washington DC 20500

Dear Mr. Dimond:

As a result of our meeting earlier this week to discuss the 21st Century Schools Initiative, we were asked to provide additional information on two topics: the disposition of the Department of Defense Domestic Dependent Elementary and Secondary Schools (formerly known as Section 6) and our plans to connect DoD K-12 Schools to the internet. I am pleased to report that neither of these issues appears to be an impediment to reaching our primary goal:

Use DoDEA as the model for the Nations 21st Century Schools: demonstrate how computer-based learning can be systematically designed, developed, and integrated in a large K-12 school system to improve significantly student achievement across all academic areas and at each grade level. The goal is to integrate interactive courseware geared to established national education standards across the K-12 curriculum and at every level by the year 2000.

In December of 1985, Public law 99-167 required the Secretary of Defense to submit a plan that provided for the orderly transfer of all Section 6 schools to the Local Education Agencies (LEAs). In March of 1986, a plan was submitted. DoD made direct contacts with the state Departments of Education, LEAs, local government officials, installation commanders, Section 6 School Boards, and Section 6 school officials on the feasibility of the transfers. Further, DoD contracted with RAND to analyze issues regarding the transfer in greater depth. Complex issues reported by RAND that impede the transfer of Section 6 schools to the LEAs included: ability to absorb increased student population; highly secure closed installations; insufficient local tax base; insufficient Impact Aid funds; lack of military and local community support; school board roles; and job loss for federal employees. Although we are currently preparing a survey to assess the impact of transferring Section 6 schools to the LEAs, we do not expect the results to differ significantly from the previous study.

On the second issue, DoD has an ambitious program to infuse learning technology into our K-12 schools. By the end of 1996, we will have 22 networked schools overseas and more than 30 schools with wide-band internet connections (greater than or equal to 64Kb). Of our stateside schools, we

will network 7 in Fort Campbell, Kentucky, by the end of 1996. Our plans are to utilize these schools as the initial testbed for the new K-12 Interactive Curriculum and expand out to include other schools as they come online. By the end of the decade we project all DoDEA schools will be connected to the Internet.

I hope this information addresses the concerns raised at our briefing.

We should probably get together again next week to make sure we have all the people and resources in place to launch this initiative. Please give me a call and let me know when it would be convenient to meet again.

Sincerely,
Louis C. Finch
Deputy Under Secretary
Readiness

November 3, 1995

MEMORANDUM FOR GENE SPERLING
PAUL DIMOND,
MIKE SCHMIDT,
JONATHAN SALLET

FROM: Henry Kelly

SUBJECT: The role of PBS and the Smithsonian in the President's
Educational Technology Initiative

PUBLIC BROADCASTING

On November 1, we met with John Hollar and John Lawson from PBS to discuss a possible role for PBS in the President's Education Technology Initiative.

Issue #1 : Rechartering PBS for the 21st century reemphasizing the institution's original mission in education programming and announcing its intention to use 21st century communication technologies for delivering materials to homes and schools.

While the PBS stations are a diverse lot, there seems to be a strong consensus that public broadcasting would benefit from an event renewing their mission. The technology revolution provides a good opportunity to do this. It is apparent that standard analog broadcast technologies will be replaced by some kind of digital communication system during the next ten years and PBS must either find ways to take advantage of these opportunities or be lost in what they call an "analog ghetto". PBS stations are proud of their record of innovation in broadcasting and would like to continue their experiments in new media -- including use of the internet and digital TV broadcasting.

A rechartering could strengthen their position politically. The Congress encountered strong political resistance when they attempted to eliminate funding for public broadcasting but have not been able to find an acceptable way to provide support. The President and Vice President's strong support for PBS played a major role in blocking Congressional cuts.

Our group agreed that a rechartering event could be an attractive part of our education technology initiative sense but only if it were strongly endorsed by the PBS stations themselves. The President could then be endorsing a concept developed by PBS stations around the nation in response to his challenge in educational technology.

Concerns:

The primary concern raised about a major announcement rechartering PBS would create expectations that can not be met unless a secure source of funding is found. Funds are needed to (a) continue production of educational programming, (b)

purchase the capital equipment needed to convert to digital communications [it will cost each station about \$1.5 million over the next decade to convert to digital broadcasting], and (c) pay for broadcast bandwidth if all or part of the broadcast spectrum is auctioned. A variety of funding mechanisms have been proposed but all are tightly coupled with the larger question of how to allocate broadcast spectrum.

It is also possible that PBS entry into new media markets could be seen as unwelcome competition by software providers. PBS has a long and successful history of working with private firms to ensure that publicly supported broadcasting doesn't compete with private interests. In many cases PBS innovations have moved to commercial networks. PBS recognizes that it needs to ensure that private software developers support its new charter. They are confident that they can secure this support.

The central question is whether it makes sense to have the President help recharter PBS before a decision has been made about funding. The timing of an announcement involving disposition of broadcasting spectrum hinges on decisions far outside the scope of the education technology initiative. An event where member stations endorse a vision for the future of the PBS would help the public and the Congress understand the role that PBS can play in education technology and build support for whatever steps are taken to secure funding. The disadvantage of stating an ambitious new charter without a clear way to pay for it is that it could lack credibility.

Issue #2: Introducing new PBS services for Kids-net and TeacherNet

PBS is already actively developing a system for helping teachers of mathematics upgrade their skills using videotapes and communication over the internet. They are anxious to provide an expanded service both to help teachers and to help students use new digital communication technologies and are actively raising money for these experiments. They would be pleased to work with us to refine the KidsNet and TeacherNet concepts and ensure a home from them in PBS.

The challenge, however, is to secure the funding needed. We can offer a simple system at relatively low cost and draw attention to successful PBS projects already underway. We agreed that PBS was in a good position to bring the KidsNet/TeacherNet to schools relatively quickly. PBS materials are already a part of most US school curricula and the products are trusted and respected. We also agreed, however, that any White House association with these projects would need to be contingent on finding secure sources of financing for an expanded program. It is entirely possible that we can identify private firms willing to sponsor some of this work. Expanded corporate acknowledgments are already being used by PBS and could be offered as a part of the new services. The teacher training services PBS now offers are also supported in part by fees charged to participating schools.

Actions:

- PBS will provide a detailed description of a KidsNet/TeachersNet project by November 10.
- Our discussions with private firms should include exploration their ideas about the future of PBS. We could encourage some of these firms to sponsor or form partnerships with PBS in new media -- including the KidsNet/TeacherNet concept.
- Meet with PBS and stations to help them define their vision for PBS' future and ensure support from member stations. We should press to get agreement on the timing and nature of an announcement. There will be a major meeting of PBS affiliates on November 27.

THE SMITHSONIAN AND FEDERAL INFORMATION ARCHIVES

On November 2, we met with Marc Pachter and Lee Denny from the Smithsonian to discuss ways that the enormous archives of information held by the federal government could be made available in digital form to developers of educational materials and directly to students and teachers. The discussion covered federal cultural holdings in the Smithsonian, Park Service, and National Archives. The Smithsonian has 150 million objects, only about 1% of which are on display. In addition to owning areas of great natural beauty, the Park Service owns many historic sites and about 40 million objects -- the U.S.S. Constitution, Independence Hall, Lincoln's hat. Very few are on display. At current rates of federal and foundation support, it will take hundreds of years to make these collections available in digital form. Some limited, but interesting, experiments are underway to make collections available on the net. These are all sponsored by foundations and small corporate grants.

Issue #1: Making a commitment to making federal archival material available in digital form and offering flexible contractual relationships with private firms interested in digitizing federal holdings.

This is easy to accomplish. In his speech upon taking the job as Smithsonian Secretary Heyman stated that one of his two principal goals in his six year term would be to make Smithsonian archives available in digital form for people around the country. He gave a speech this month outlining his intention to expand use of private funds in supporting Smithsonian activities. He has a number of practical ways that the institution can be more flexible in the way it acknowledges corporate sponsorship and shares revenues. These commitments could provide the basis for a powerful statement about our intention to make federal holdings available.

Again, the issue is whether this statement of intention is newsworthy absent a major source of funding that gives credibility to an ambitious goal in making digital collections available.

Issue #2: Finding a major corporate sponsor which can underwrite the digitization of a large collection or the installation of equipment which could ensure that all new acquisitions are captured in digital form.

The Smithsonian has had conversations with several firms whose business plan involves making digital photographs available to publications and software developers. They are not interested in ownership of the rights to the photographs since the value added they sell involves efficient access to images. It is entirely possible that one of these firms can be convinced to invest in digitizing a large collection (10 million images would be a reasonable goal). The firm would need to be convinced that the investment makes sense both because of the unique access it provides to federal collections and because it could use its sponsorship of a Smithsonian or Park Service digitization project in advertising -- much as sponsorship of the Olympics is used in advertising.

Actions:

- The Smithsonian will provide us with talking points for conversations with possible corporate sponsors of a large-scale digitization effort. A telephone call from a major Administration official may be needed to reach the relevant CEO.
- Sponsorship for the digital capture of individual collections, or projects focusing on individual park sites or collections, should be a part of our conversations with private sector representatives.
- We will examine the calendar of events that will be held in connection with the Smithsonian's celebration of their 150th anniversary. This includes a major exhibition that will be provided free at convention centers around the nation (inaugurated in LA in January 1996), a series of "Smithsonian minutes" broadcast throughout the year, a 1-hour CBS special, and a major celebration on the mall in August 11 1996.

DRAFT

November 7, 1995

MEMORANDUM FOR GENE SPERLING

FROM: Paul Dimond
Mike Schmidt

SUBJECT: Schedule of Meetings on Possible Federal Actions on Educational Technology

CC: Bill Curry
Greg Simon
Jonathan Sallet
Henry Kelly

As you know, we have held a series of meetings to reach decision points on the possible federal actions on educational technology that have been proposed over the past few months. These meetings were small meetings between the WH offices participating on the Ed Tech Work Group (DPC, NEC, OMB, OSTP, OVP) and the agency officials responsible for each individual issue. At this point, the proposed actions fall into three categories:

- Issues that are ready to go and require no action by the NEC Principals
- Issues that require action/resolution by the WH and/or the NEC Principals
- Issues that are still pending or that only time will resolve

I. ISSUES THAT REQUIRE NO ACTION BY THE NEC PRINCIPALS

Issue: ***Strong Presidential statement supporting the Snowe-Rockefeller amendment and expansion of Universal Service provisions in the telecommunications bill.***

Summary: The Snowe-Rockefeller Amendment and the Universal Service Trust Fund provisions in the current Telecom Bill will lower the costs for schools and classrooms to connect to and to use the Information Superhighway. These provisions could cut the costs to schools and classrooms by a significant amount, compared to businesses.

Status: We have and will continue to publicly support the Snowe Rokerfeller Amendment as a part of the Telecom Bill. The current version of the amendment does not include language that would allow the USF to be used for inside-the-school wiring, but the VP's office feels that this change can be obtained through report language that we should be able to get in conference.

Issue: Request that FCC set aside a specific piece of spectrum for educational use

Summary: Send a strong letter to FCC requesting that a specific piece of spectrum be set aside (*the "NII Band"*) which can be used to (i) lower the cost of internal networking for schools with difficult installation problems and (ii) lower the cost of connecting rural schools.

Status: The Department of Commerce has sent a request to the FCC supporting an Apple proposal to set aside this piece of spectrum.

II. ISSUES THAT REQUIRE SOME ACTION/RESOLUTION BY THE WH OR THE NEC PRINCIPALS

Issue: 21st Century Schools -- Department of Defense:

Summary: Direct the Department of Defense to transform its Department of Defense Dependant Schools (DoDDS) -- 172 overseas for 82,000 dependent children and 65 State-side for 33,000 dependent children of our families in service -- into cost-effective *models for the Nation's 21st Century Schools*. Demonstrate how computer-based learning can be systematically designed, developed, and integrated in a large K-12 school system that spans the globe in order to significantly improve student achievement and performance across all academic areas and at each grade level. The goal is to have an hour of interactive courseware per day used at every grade level and to promote additional interactive discovery, research and expert tutoring on the education resources available on the internet.

Status: We met with Lou Finch and his colleagues from DOD to discuss potential actions that DOD could take to support the President and Vice President's Educational Technology Initiative. The potential additional cost that would be needed is fairly modest. There was general agreement at this meeting that the proposal to transform the Department of Defense Dependant Schools (DODDS) into models for the nation's 21st Century Schools has a good chance of being approved by DOD.

Action Needed: In order to reach a final decision, you (or Laura) will have to put a call in to the Deputy Secretary to indicate the importance the President and Vice President place on the Educational Technology issue, and our desire to see this DODDS Schools initiative be a part of our announcement of the National Public-Private Plan.

Issue: Announce Second Round of the Technology Learning Challenge II and expand to Pre-School:

Summary: (a) Expand the TLC to include pre-school. (b) FY 97 Budget request of \$75 million, up from our request of \$50 million in FY96.

Status: There is agreement from both DoEd and HHS that this is the right step to take for FY 1996. HHS has already been working with DoEd to make sure that the next round of TLC grants will include language on including pre-school children in any new grant proposal. We asked DoEd to come back to us with two documents in this area:

1. A recommended timeline for the TLC II rollout (now projected for announcement in January), complete with an alternative "Plan B" timeline for a December announcement;
2. A summary of the major themes of the TLC II grant application (how will we focus on pre-school children and still build off of existing application requirements).

Action Needed: We need to get as close to the President's FY96 \$50 million request for TLC II as possible or it will not be able to fund any new applicants in the FY96 appropriations battle: This must be a priority on the WH budget negotiation list. If we are left with something in the \$15-20 million range, as the current Labor/HHS appropriations seem to be heading, these funds will only go to funding year 2 of the 1995 first-round TLC grants and there will not be enough left to fund any significant number of new projects. (DoEd and HHS will cooperate with the current TLC winners who wish to add a pre-school component. With respect to FY97, the real decision is to use TLC authorizing provisions to stake up to 50 state TLC funds)

Issue: Direct agencies to actively participate in the Tech Corps

Summary: Issue a Presidential Directive that directs agencies to actively participate in the Tech Corps to the full extent that their mission and budgetary authorities allow (this will enable the government to participate in Tech Corps at the same level as the private sector).

Status: According to existing Personnel laws and regulations, Federal Employees already have the ability to volunteer in schools and other non-profit entities on company time for a limited number of hours when approved by the agency head. So no Presidential Executive Order is needed here.

Action Needed: The Working Group recommends that we have some sort of Presidential Directive (a memorandum or letter to the heads of agencies) encouraging the heads of federal agencies to allow their employees to actively participate in Tech Corps and other related volunteer activities in their local schools to help schools integrate technology into the classroom. Working Group members also recommend that agencies have some sort of active encouragement to have their employees participate in such a program -- perhaps some sort of Presidential or Vice Presidential recognition or award for the best agency program in this area (similar to the VP's Hammer Awards for Reinventing Government).

Draft language for this Directive is being prepared by OVP and should be ready by next week for our review.

Issue: Streamline federal donations of computers

Summary: Issue an Executive Order that directs federal agencies to streamline their donation of computers and other technologies to schools to ensure that federal contributions can be made as easily as private contributions.

Status: President Bush signed an Order on this subject in November of 1992. However, this order is narrowly targeted at only science and technology agencies (mostly DoD, Energy, and NASA) and has not been very effective in getting high quality equipment into the schools. Moreover, it puts agencies in the position of being viewed as "dumping" obsolete equipment into the schools. The Vice President's Office has been working on a draft Executive Order that would enable all federal agencies to donate used equipment to a group of non-profit entities that take used computers and upgrade them to make them Internet-capable and ready for use in the classroom. This draft order would also expand this initiative to all agencies in government, not just science and technology agencies.

Action Needed: The Vice President's Office promised to have the draft order ready for review by the end of this week. **The Working Group recommends beginning to formally review and clear this order for issuance at whatever roll-out event we end up doing.**

Issue: Issue an executive order establishing the Interagency Learning Technology Office

Summary: Issue an Executive Order formally establishing the ITLO at the Department of Education that would allow it to (a) focus the currently scattered and duplicative federal research and state-of-the-art demonstration programs for education technology in DoD, NASA, DoEd, NSF and other technology agencies -- working in cooperation with the private sector and educators -- on topics of value to public schools; (b) in cooperation with private developers, conduct an advanced demonstration in each of three areas -- pre-school, K-12, and school-to-work; and (c) work with the private sector and the States to get the results of existing and future research marketed to schools, students, and parents.

Status: The ILTO issue is a controversial issue among Working Group participants. All of the meeting participants agreed that there needs to be some role for coordinating Federal R&D in the area of educational technology, and that the ILTO structure already up and running informally at DoEd seems to be the right approach. However, there is some concern that we would be sending the wrong message by making this one of the "Federal Actions" that the President and Vice President hold up as a part of the public-private partnership when it is announced -- the fear is that it will look like we are endorsing the formation of a new bureaucratic structure, or a "typical big government solution" to this issue. The message that needs to get across, but would likely get lost here, is that this organization is needed to focus existing Federal R&D activity (which is scattered across many agencies) and act as a bridge to the private sector in this area.

Action Needed: A consensus recommendation was reached by the Working Group participants: **that we move ahead quietly with an Executive Order that formally creates the ILTO entity (needed for continuity and personnel reasons), but don't make this one**

of the actions the President and Vice President hold up as a part of their public-private partnership.

III. ISSUES THAT ARE STILL PENDING OR THAT ONLY TIME WILL RESOLVE

Issue: Establish federal funding for 50 matching, State Technological Literacy Trust Funds:

Summary: The diverse federal actions described in this document will help stimulate major private sector actions to assist in lowering the costs to schools, but there will still be significant start-up and on-going costs. As a result, financing matching funds -- that encourage each state (and local districts) to reprioritize their own investments in educational technology in partnership with the private sector -- may be influential. This may be particularly important -- as provided in the TLC authorizing legislation -- to making sure that state-local-private consortia are formed within states so that potential "have-not" districts and schools are not left out of the education technology revolution.

Status: On Friday of last week, Mike Smith made a presentation on the trust fund issue to Ken Apfel, Greg Simon, Paul Dimond, Jonathan Sallet, and other members of the Ed Tech Working Group. He put forward a very credible framework for financing a trust fund that the group agreed should be followed up in more detail:

- On the **Connections Pillar**, Mike argues that between actions being taken by the private sector (e.g. NetDay, ATT) and, more importantly, the changes that will likely come through the Telecom bill and its changes to the Universal Service Fund, the Federal Government will not have to put forward any funding for connecting schools and classrooms.
- On the **Computers Pillar**, Mike proposes that we target grades 4-12 (with the assumption that older machines will work their way down to the lower grades, where they are more useful). Assuming 1 computer for every 4 students (which the pedagogical literature strongly suggests), and a price range of \$1000 - \$1500 per machine, he comes up with a total cost of **\$7.5 billion** for computers and **\$1 billion** for printers over 5 years.
- On the **Teacher Training Pillar**, Mike assumes a total cost of \$1000 per teacher. However, he also assumes that \$400 of this cost will be borne by the computer manufacturers and other sources in free technical training (e.g. how to send an e-mail, how to get on the internet). That leaves \$600 per teacher, and with 2.25 million teachers nationwide that comes to **\$1.5 billion** to train every teacher over 5 years.
- On the **Content Pillar**, Mike argues for the need for approximately **\$500 million** over 5 years to stimulate new ideas (TLC grants, Star Schools, etc). OMB proposes that each computer will need approximately \$500 in software, so that comes to **\$3 billion** over 5 years.

In all, Mike's figures add up to a **total cost of \$13.5 billion over 5 years**. At a 5-to-1 match, that comes out to **\$500 million per year over 5 years in federal funds** (\$2.5 billion) to leverage an additional \$12.5 billion in State and Local match. This federal figure is much more manageable than the higher figures that have been discussed over the past few weeks.

The meeting participants were intrigued by Mike's proposal and will be meeting again this week to flesh this proposal out in more detail. OMB will run a side-by-side of Smith's proposal with the Rand and McKinsey study numbers for this meeting.

Issue: A Learning Lever for Every 5th Grade Student

Summary: News reports of the California CEO meeting with the President indicated that the heads of Oracle and Sun agreed to produce an interactive terminal to connect each student to the Internet for a price of \$500 per unit. Assuming this price point, it would require approximately [\$x] per year to provide the [y #] of indigent 5th graders (measured by reduced or free lunches) with such a computer, starting in 1998. This could stimulate the market for providing such learning levers to all students entering the middle grades. We could make the provision of such a computer terminal for every such indigent fifth grade student a condition of continued federal financing of the matching Education Trust Fund, starting in 1998; or provide separate federal funding for every such indigent student, beginning in 1998

Status: The status of this initiative will depend on the outcome of the trust fund discussions. DoEd has not done any significant thinking on this issue, and we have asked them to prepare a list of options, complete with pros and cons, by the end of this week. However, it seems that there are really only three routes to take on this:

1. If a Trust Fund is created, include this as a state condition of continued federal financing of the matching Education Trust Fund.;
2. Work Legislatively to create some kind of requirement that a portion of Title I funding be used to purchase such a learning lever for Title I eligible students, or;
3. Impose no new Title I requirement but work with Title I providers to encourage them to form technology purchasing consortia that could contract for and purchase such learning levers.

As you can imagine, Option #2 would create all sorts of problems -- not only would we be fighting a tradition of federal non-interference in the way local school districts spend Title I funds, but we would also be contradicting our own "ReGo II" efforts over the past year to roll back burdensome federal regulations. On the other hand, if the Option #1 trust fund is pursued, it may be funded under the TLC provision of ESEA anyway.

Issue: Learning Levers for Every Head Start Student

Summary: Budget funds to help pay for **interactive learning levers** for new Head Start participants beginning in 1998. These educational learning tools could be used both at home

or in the Head Start centers.

Status: HHS has a serious objection to this proposal, and it is our opinion that if we wanted to accomplish something in this area someone at a high level at the WH would have to go to the mat with Secretary Shalala. Peter Edelman has agreed to sit down privately with you and Paul to discuss this issue at greater length. In their defense, HHS does have a strong, non-budgetary argument for why they oppose this provision: Unlike the discussion of a learning lever for children at the 5th Grade level, at this time it is not clear to anyone in the public or private sector what the learning levers for preschool children might be, not to mention what is should accomplish. Instead, HHS proposes their participation in the TLC II on this small scale before considering a more serious budgetary commitment.

In our opinion, in order to stimulate relevant commitments to develop pre-school learning levers, Peter's argument is correct.

Issue: *Bring the Smithsonian to Your School: Announce a new policy allowing cost-shared partnerships*

Summary: Establish a cost-shared program to bring the rich collections of the Smithsonian, the National Park Service, and the National Archives, for example, to the classroom through digital means. To accomplish this, announce a new policy allowing partnerships with publishers to digitize and distribute federal cultural collections granting them rights to the digital collections, and the logo of the institutions, for a fixed period [e.g. 1-2 years]

Status: Smithsonian Secretary Heyman is committed to this issue and has been reaching out to the private sector for the past year to explore potential partnerships in this area. He is ready and willing to stand with the President and Vice President and make this willingness to work with the private sector clear. However, this announcement would be much more effective and newsworthy if he (or the POTUS) could announce a major private sector partner that has "signed on" as a corporate partner. Over the next few weeks, we will work to make sure the Smithsonian is plugged in to our outreach efforts with the private sector in an attempt to help broker a possible partnership on this issue.

PBS Issue 1: *Recharter PBS for the 21st Century Announcing its Intention to Use Interactive Technologies to Deliver Educational Materials to Homes and Schools*

Summary: There seems to be strong consensus among PBS stations that public broadcasting would benefit from a renewal of its mission, and that the information technology revolution provides a good opportunity to do this. PBS stations are proud of their record of innovation in broadcasting and would like to branch out into new media -- including the use of the internet and digital TV broadcasting.

Status: A rechartering effort could strengthen PBS' position politically. Congress backed off from its attempt to eliminate funding for public broadcasting, but they have not found an

acceptable way to provide support. **The primary concern raised about a major Presidential announcement rechartering PBS is that it would create expectations that can not be met unless a secure source of funding for this effort is located.** Funds are needed to a) purchase the capital equipment needed to convert to digital communications over the next decade and b) pay for broadcast bandwidth if all or part of the broadcast spectrum is auctioned off. **A wide variety of funding mechanisms have been proposed, but all are tightly coupled with the resolution of the larger question of how to allocate the broadcast spectrum. The central question is whether it makes sense for the President to announce a rechartering of PBS before a decision is reached about the broadcast spectrum and funding.**

PBS Issue 2: Announce TeacherNet, World Wide Classroom and Other Interactive Learning Initiatives

Issue: PBS is already actively developing a system called MathLine that helps math teachers upgrade their skills using videotapes and internet communications. They are anxious to provide an expanded "TeacherNet" and "KidsNet" service to help both teachers and students use interactive technologies to learn in a wide variety of subjects and are actively raising money for these experiments. One of these services is the creation of a virtual Worldwide Classroom on the Internet (e.g., to connect students at a distance in research with one another and with experts in a variety of fields), and also an expansion of their charter to make clear that they will use their piece of the spectrum in local communities to provide engaging and interactive educational content to schools, day care centers and homes (e.g., Big Bird and Barney interactive learning games).

Status: The challenge here is to secure funding for this initiative (either through spectrum methods or through PBS-private sector partnerships). Over the next few weeks, we will be working in our outreach activities to try and connect PBS with interested corporate partners to pursue these initiatives.

Other Minor Issues That Will Be Decided Soon

- **Internet Games:** The President could challenge students to compete in a series of educational contests over the internet loosely patterned after the Olympic Games.
- **Presidential Awards for Innovative Use of Technology for Education:** The Smithsonian and Computer World Magazine have hosted a small award program in this general area for the past seven years. It could be greatly expanded if elevated to the stature of a Presidential Award.