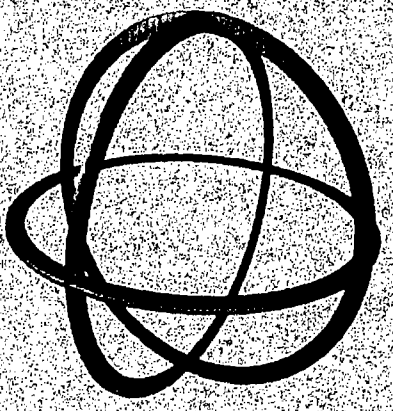
Clinton Presidential Records
Digital Records Marker

This is not a presidential record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.

This marker identifies the place of a publication.

Publications have not been scanned in their entirety for the purpose of digitization. To see the full publication please search online or visit the Clinton Presidential Library's Research Room.

SEEKING SOLUTIONS TO THE DIGITAL DIVIDE



How Can We Best Use the Marketplace to Bring the Benefits of Digital Technology to All?

Monday, November 29, 1999

Bell Harbor International Conference Center
Pier 66
2211 Alaskan Way
Seattle, Washington

www.Digital-Divide.org

Draft 2/1/00 4:15pm
Lowell Weiss

PRESIDENT WILLIAM J. CLINTON
REMARKS ON "DIGITAL DIVIDE"
BALLOU HIGH SCHOOL
February 2, 2000

'00 FEB 1 PM4:27

Acknowledge: introducer TK; Co-principals Dr. Durham and Dr. Bridges; AOL Chairman and CEO Steve Case; Epic Learning Pres. David Sterling; Net Day CEO Julie Evans; Gene Sperling; Rep. Holmes-Norton and other Members TK; DC School Superintendent Ackerman; People who couldn't be here today: VP Gore [who has been leading our nation's efforts for many years], Sec. Daley [who is speaking on this issue in Harlem today].

I just had a wonderful tour and got a chance to learn how technology is enhancing the educational mission of this school. I learned that every freshman is taking a computer literacy class. I learned that students are going online to get help on their homework, chat in foreign languages with students around the world, and work on projects with scientists from the Naval Research Lab.

I was particularly pleased to learn about Epic Learning's long-term commitment to helping students earn certificates toward high-tech careers and about all the ways other good corporate citizens are combining forces to provide additional hardware, software, and teacher training over the coming year. [*From the students' point of view, there is one downside to all this new technology: I can already imagine the day when a big snow storm won't mean a day off but rather a day of teleconferencing from home.*]

The reason I am here today is to announce new ways we can team up to bring the benefits of new technologies into our schools, our homes, small businesses, and every other part of community life. Because I believe that computers and the Internet can be the greatest equalizing force our society has ever known – breaking down mighty barriers of race and geography, disability and age. I've seen the beginnings of this here at Ballou. We're seeing remarkable examples all over the country.

Two years ago, Clinton Johnson lost his little bakery on 125th Street in Harlem and had no savings to support his wife and two kids. But he found a community technology center near his home, learned HTML code, and landed himself a good job as a web developer and database designer. Victor Shen is a high school junior in Whittier, Alaska, who dreams of becoming a professional mathematician. Unfortunately, his school does not offer college-level calculus and his community is so remote that it is cut off from the rest of the world for several months each winter. But Victor will soon have the chance to take the classes he needs – just by getting online.

Dale O'Reilley, a grandmother of two from Medford, NJ, was diagnosed with Lou Gehrig's Disease nine years ago. Although she cannot move or speak, a special laptop computer allows her to voice her thoughts and to continue writing articles for the Philadelphia Inquirer. This past Christmas, I bought several gifts on a web site that features the work of artists from the Pine Ridge Indian Reservation. The Internet is giving Native Americans an opportunity to sell their crafts all over the world.

And this is just the beginning. Just imagine when every child in every community will be able to stretch a hand across the keyboard and reach every book ever written, every painting ever

created, every symphony ever composed ... when high-speed wireless networks bring distance learning and telemedicine to every rural community in America ... when every new immigrant learning English has the benefit of intelligent computers that can speak and understand human speech ... when even the smallest businesses can compete in worldwide markets once reserved for the most powerful corporations. This is the future we are trying to build.

In 1994 – back when only 3% of all classrooms were wired – the Vice President and I set a goal of connecting every classroom and library to the Internet. The public and private sectors have risen to the challenge – through generous grants, through Net Days, and especially through the steep discount on access charges known as the E-rate, for which we owe the Vice President enormous thanks. As a result, we are on track to meet our ambitious goal by this time next year – and in our schools and libraries, the digital divide has already greatly narrowed.

But make no mistake: The digital divide is still a yawning gap in many parts of America. Recent studies confirm what you might expect: low-income families are far less likely to have access to the Internet and computers at home than middle-class families – and low-income African-Americans and Hispanics are falling even further behind than low-income whites. People living in rural areas are lagging far behind in computer ownership and Internet use – and the widespread lack of high-speed Internet access in rural areas threatens to hinder business growth. Native Americans have it worst of all: Only TK% of Indian Country is on the Internet.

Eventually, this digital divide will deprive businesses of the technology-savvy workers they desperately need – slowing productivity and economic growth. It could also widen fissures of inequality between people and open a chasm that separates us from our nation's highest ideal of opportunity for all.

Until Internet computers are as common in every community as telephones are today ... until all our citizens have the tools and the skills to participate in this technological revolution ... America will miss the full promise of the Information Age. We cannot allow this age of opportunity to be an age of missed opportunity.

This challenge is too big for government alone. It is a job for all of us – businesses and governments, foundations and community organizations, institutions of learning and houses of worship. To highlight the need for all of us to work together on this great cause, from April 4 to April 6, I will lead a delegation on a New Markets tour focused specifically on the challenges of the digital divide.

As we have done on our two previous New Markets tours, we will visit communities that have not fully participated in our nation's economic growth. But we will also see how public-private partnerships can unleash the power of the Internet to link children and adults to a lifetime of learning, improve health care, assist job-seekers, enhance safety, and foster economic development. In the coming days, I will be reaching out to top CEOs as well as various nonprofit leaders to join me on this tour. My great hope is that, together, we can spread the old-fashioned barn-raising spirit to communities across 21st century America.

The budget I will submit to Congress on Monday will provide new help to propel these efforts. This budget represents the greatest effort our nation has ever launched to close the digital divide and open new digital opportunities for all our citizens.

First, I am proposing to triple our support for community technology centers, so we can build 1,000 new centers in low-income urban and rural areas. Thanks to the leadership of Rep. Waters and others, community technology centers are already empowering tens of thousands of children as well as adults – helping them do everything from improving their reading to starting up successful high-tech businesses. Community technology centers are a crucial part of any effort to close the digital divide.

Second, I want to give private companies new tax incentives to join us in closing the digital divide. My budget would offer companies generous tax deductions to help build and support community technology centers, for donating quality used computers, and for providing computer training to their workers.

Third, I am proposing to give every new teacher in America the training they need to use technology effectively in the classroom. All the computers and connections in the world will go to waste if our students and teachers lack the knowledge to make use of these powerful tools. So my budget calls for $150 million in grants to ensure that new teachers are as proficient with computers as they are with textbooks.

Fourth, my budget provides grants to local partnerships for helping low-income families bring computers into their homes. Potential partners for these grants include local school districts seeking to expand parental involvement in education and local government agencies trying to save taxpayer dollars with electronic delivery of government services.

Fifth, we are offering new grants and loan guarantees to encourage private-sector firms to bring high-speed networks to under-served communities. High-speed Internet access is becoming as important to the economic vitality of a community as roads and bridges.

Finally, I believe we can spur even more innovative applications of technology for low-income communities by tripling our investment in Sec. Daley's highly successful Telecommunications Opportunity Program. The idea is to support innovations like health information systems that raise childhood immunization rates in inner cities and tele-mentoring for at-risk youth.

The paradox of this age of possibility is that the same tools that are breaking down mighty barriers can also heighten economic inequalities and sharpen social divisions. That is what happened with the mechanization of agriculture and then in the Industrial Revolution. In the Information Age, we have it within our power to avoid these mistakes. We must not let the digital divide exacerbate the human divide. On the contrary, we must use this new technology to help close the gaps between rich and poor ... the haves and have-nots ... the strong and the weak.

To those of you who are already doing so much, I am deeply grateful. And to those of you who have not yet gotten involved, we're ready to show you the way. It's time for every company in America to use its power to empower others. At this sunlit moment of prosperity and promise, there is no reason why any American has to be left in the dark.

# # #

parental involvement in education; high-tech companies willing to provide discounts on computers and access; libraries offering training on "information literacy"; employers seeking to upgrade the skills of their workforce using distance learning, and government agencies at all levels seeking to save taxpayer dollars through the electronic delivery of government services. A number of Silicon Valley CEOs and community-based organizations are already launching such a project along these lines in Oakland, California called "ClickStart."

5. **Encouraging investment in high-speed networks for under-served urban and rural communities**: High-speed Internet access is becoming as important to the economic vitality of a community as roads and bridges are today. The President will propose a new $25 million to accelerate private sector deployment of broadband networks in under-served urban and rural communities -- using grants and loan guarantees. The potential payoff from these kinds of investments is enormous. One company, for example, has helped people move from "welfare-to-work" by connecting their community with the high-speed networks needed to support telecommuting. This solves some of the biggest barriers associated with welfare-to-work -- lack of childcare and transportation.

6. **Promoting innovative applications of information technology for under-served communities**: President Clinton's budget will increase the investment in the highly-successful Telecommunications Opportunity Program (TOP) to $45 million -- triple the current level of expenditure. This program encourages innovative applications of information technology that help empower low-income communities -- public health information systems that raise childhood immunization rates in inner-cities, tele-mentoring for at-risk youth, and electronic networks that strengthen local communities by fostering communication and collaboration.

7. [HUD proposal?]

II. THE IMPORTANCE OF BRIDGING THE DIGITAL DIVIDE

Access to computers and the Internet and the ability to effectively use this technology are becoming increasingly important for full participation in America's economic, political and social life. People are using the Internet to find lower prices for goods and services, work from home or start their own business, acquire new skills using distance learning, make better informed decisions about their healthcare needs, and get more involved in the education of their children by communicating more frequently with teachers.

Access to computers and the Internet has exploded during the Clinton-Gore Administration. Unfortunately, there is strong evidence of a "digital divide" -- a gap between those individuals and communities that have access to these Information Age tools and those who don't. In some instances, this divide is actually widening. A July 1999 report from the Department of Commerce, based on December 1998 Census Department data, revealed that:

- **Better educated Americans more likely to be connected.** Between 1997 and 1998, the technology divide between those at the highest and lowest education levels increased 25%. In 1998, those with a college degree are more than *eight times* likely to have a computer at home and nearly *sixteen times* as likely to have home Internet access as those with an elementary school education.

- **The gap between high- and low-income Americans is increasing.** In the last year, the divide between those at the highest and lowest income levels grew 29%. Households with incomes of $75,000 or higher are more than *twenty times* more likely to have access to the Internet than those at the lowest income levels, and more than *nine times* as likely to have a computer at home.

- **Whites more likely to be connected than African-Americans or Hispanics.** The digital divide is also persistent and growing along racial and ethnic lines. Whites are more likely to have access to the Internet from home than African-Americans or Hispanics have from *any* location. African-American and Hispanic households are roughly *two-fifths* as likely to have home Internet access as white households. The gaps

between white and Hispanic households, and between white and African-American households, are now more than six percentage points larger than they were in 1994. However, for incomes of $75,000 and higher, the divide between whites and African-Americans has narrowed considerably in the last year.

- **Rural areas less likely to be connected than urban users.** Regardless of income level, those living in rural areas are lagging behind in computer ownership and Internet access. At some income levels, those in urban areas are 50% more likely to have Internet access than those earning the same income in rural areas. Low income households in rural areas are the least connected, with connectivity rates in the singles digits for both computers and Internet access.

III. A STRONG RECORD WORKING TO CLOSE THE DIGITAL DIVIDE

President Clinton and Vice President Gore have worked hard to close the digital divide, and to help create opportunity for more Americans in the Information Age. They have worked to:

- **Ensure that every child is technologically literate**: The President and Vice President have set a goal of connecting every classroom and library to the Internet by the year 2000 -- a goal that we are on track to meet. They also have fought for investments in technology training for teachers, modern computers in the classroom, and high-quality education software. Technology in the classroom can make it easier for parents and teachers to communicate, prepare our children for the high-tech workplace of the 21st century, and help improve student performance in all academic subjects. Major Administration initiatives in educational technology include the Technology Literacy Challenge Fund, and the "e-rate." The "e-rate" is helping to connect our children to the future by providing discounted Internet access to libraries and 1 million classrooms, with the deepest discounts going to the poorest schools and libraries that need it most.

- **Expand access to technology for people with disabilities**: President Clinton and Vice President Gore have been strong supporters of efforts to make technology more accessible for people with disabilities. Recent actions by the Federal Communications Commission will help ensure that telecommunications equipment, such as cellular phones, is designed to be accessible for people with disabilities.

THE WHITE HOUSE
CORRESPONDENCE TRACKING WORKSHEET

ID# 408886
PAGE 1

DATE RECEIVED: 01/14/2000

NAME OF CORRESPONDENT: THE HONORABLE THOMAS M. MENINO

SUBJECT: INVITES THE PRESIDENT TO VISIT BOSTON SO THAT HE CAN SEE THE INNOVATIVE PROGRAMS THAT THEY HAVE DEVELOPED TO "BRIDGE" THE DIGITAL DIVIDE

		ACTION		DISPOSITION		
ROUTE TO: OFFICE/AGENCY	(STAFF NAME)	ACTION CODE	DATE YY/MM/DD	TYPE RESP	C D	COMPLETED YY/MM/DD
SCHEDULING AND ADVANCE	CARRIE STREET	ORG	2000/01/14			
ACTION COMMENTS	OPEN					
INTERGOVERNMENTAL AFFAIRS	MICKEY IBARRA	RSI	2000/01/14			
ACTION COMMENTS						
			/ /			/ /
ACTION COMMENTS:						
			/ /			/ /
ACTION COMMENTS:						

Bruce/Jane - this sounds terrific! Thanks

COMMENTS CC: IBARRA

ADDITIONAL CORRESPONDENTS: 0 **MEDIA:** LETTER **INDIVIDUAL CODES:**

REPORT CODES: **USER CODES:**

cc. Rahm

1-17-00

ACTION CODES:
A - APPROPRIATE ACTION
C - COMMENT/RECOMMENDETION
D - DRAFT RESPONSE
F - FURNISH FACT SHEET
I - INFO COPY/NO ACT NECCESSARY
R - DIRECT REPLY W/ COPY
S - FOR SIGNATURE

DISPOSITION CODES:
A - ANSWERED
B - NON-SEPC-REFERRAL
C - COMPLETED
S - SUSPENDED

OUTGOING CORRESPONDENCE:
TYPE RESP = INITIALS OF SIGNER
CODE = A
COMPLETED = DATE OF OUTGOING

REFER QUESTIONS AND ROUTING UPDATES TO RECORDS MANAGEMENT (ROOM 72, OEOB) EXT-62590
KEEP THIS WORKSHEET ATTACHED TO THE ORIGINAL INCOMING LETTER AT ALL TIMES AND SEND COMPLETED RECORD TO RECORDS MANAGEMENT.

schedule
open
cc: Sherrie

506 8518

408886

CITY OF BOSTON • MASSACHUSETTS

OFFICE OF THE MAYOR
THOMAS M. MENINO

SRle

December 31, 1999

President Bill Clinton
White House
Washington, D.C. 20500

Dear President Clinton:

I am pleased to hear that you and Commerce Secretary Daley will be conducting a "Digital Divide" tour of the country this spring. I would like to invite you to visit Boston so that you can see the innovative programs that we have developed to "bridge" the digital divide. Boston is leading the nation in developing a comprehensive approach to spanning the digital divide - in our schools, our community centers and our libraries. It is our hope that our innovations might help other cities facing the same challenges.

Our city mirrors what is occurring in other large urban areas in that very few low-income and minority families have access to technology. Only one in ten Boston Public School students has a home computer, 75% of our students qualify for the free and reduced school lunch program and over 85% are minorities.

We are making major strides to insure that every student and family member has access to technology and training in schools, libraries, community centers and in their homes.

- In our schools, my **Kids Compute 2001** program has reduced the ratio of students to computers from 63:1 in 1996 to 7:1 in 1999 and by 2001 the ratio will be 4:1. We were the first urban school district to have all our schools networked with high-speed connections to the Internet. Over 40% of our teachers have computers in their classrooms and these same teachers have at least 50 hours of technology training.

- Boston has the highest concentration of **community technology** centers with over 80 technology centers and 26 branch libraries with computers and high speed Internet access. 20 centers in the poorest neighborhood in Boston will receive 20 years of technology and software upgrades through our Timothy Smith fund.

- Our **TechBoston** program provides high tech skills for middle and high school students that lead to certification in five different areas of study. In just our second

JAN 10 2000

BOSTON CITY HALL • ONE CITY HALL PLAZA • BOSTON • MASSACHUSETTS 02201 • 617/635-4000

year we are already serving 675 students and within three years we expect to enroll over 5,000 students (20% of the students in the top six grades). Because we have over 100 high tech partners from around the country, we are insured of having an up-to-date curriculum, job opportunities and internships for our students.

- Private sector partners have also helped create **Technology Goes Home,** a program that aims to provide computers and high tech training for 1,000 low-income families. Local community organizations provide the training and technical support for families.

- In order to tie all of these initiatives together, in early 2000, I will be announcing the creation of the **Digital Bridge Foundation**. The foundation is a privately funded 501(c)(3) corporation with a board of directors composed of high technology firms and executives. It will be the gathering point for high technology efforts throughout the city including K-12 school technology, community technology, adult technology education and partnerships with local, regional and national high technology firms. $3 million has already been contributed or committed from HiQ Computers, 3Com, Cisco, Microsoft, ATT, Keane Software and others. Another $25 to $50 million will be raised from high technology companies to endow the foundation for staff and operating expenses.

Please put Boston on your spring Digital Divide itinerary. You will witness a city that is a leader in 21st century technology efforts, not only as an incubator for many intelligence-driven "dot com" companies, but also as a generator of many innovative programs that bring access and skills to the technology "have nots."

Sincerely,

Thomas M. Menino
Mayor of Boston

Cc: William M. Daley, Secretary of Commerce

Alta Partners

Michzk B. !
Tom Kalil ✓

17 December 1999

Mr. John D. Podesta
Chief of Staff to the President
The White House
Washington, DC 20500

Dear John,

Thank you again for taking the time to discuss in detail the possibility of a landmark effort to close the emerging Digital Divide.

More than ever, we believe that it is critical for the Administration to put a specific placeholder item in the upcoming budget to subsidize up to 1 million low-income households in America's poorest communities. We believe that the program is feasible at a $10 per household per month level, or $120 million next year plus a nominal amount for the level of oversight the Administration and Congress feel is appropriate.

During our several meetings with White House staff, a few key issues were raised which we promised to address as our follow up. Those are:

Standards for hardware & internet service

We propose that a public-private partnership either form a new or charter an existing not-for-profit corporation (e.g., a "Digital Opportunity Corporation"). The Digital Opportunity Corp. (DOC) would be charged with periodically setting technically neutral standards for minimum acceptable hardware, software, and ISP services sufficient to provide a base level of home computing and internet access. As of today, these standards would be, roughly:

1. A 333 Mhz processor
2. Sufficient memory to support multimedia functions (probably 32 MB of RAM)
3. Sufficient hard drive storage for family use (probably 3 GB)
4. A full-featured web browser
5. Free e-mail
6. A Standard software suite including word processing, spreadsheets

Eligibility

Eligibility would be determined by the U.S. Government in its subsidy allocation. Confirmation of eligibility would be verified by the DOC. The working goal is to provide a subsidy for the nine million poorest households, or those families with incomes up to 130% of the federal poverty level.

Fraud

Each machine would carry a serial number. If a participant failed to pay monthly charges, or illegally sold the machine to someone else, the machine would not be able to gain internet access.

One Embarcadero Center
Suite 4050
San Francisco, CA 94111

(415) 362-4022
fax (415) 362-6178
alta@altapartners.com

Fraudulent sale of the equipment or corporate abuse of the program should carry an appropriate criminal penalty.

Vendor-neutrality

The proposed voucher scheme would not advantage any vendor or service provider. The technical standards would not favor or require any particular hardware, software, or architecture. The proposed standards can be met by virtually all configurations currently in the market. More cost-efficient vendors would benefit by reducing costs and/or increasing the range of features.

Marketing

We believe that the Administration must take the lead on stimulating the market for this new class of service. In addition, we expect to secure donations to help market the program.

Privacy

We believe that users of the Universal Access program must be assured of a high level of privacy. No party will be permitted to monitor usage of the device. The individuals involved may choose to release some demographic information in exchange for reduced charges or other benefits, but this cannot be a requirement as part of the Universal Access package. While we believe that there is a legitimate use for *aggregate* demographic information about web-users, no personally identifiable information would be sold to any third party under any circumstances.

Payment mechanism

Payments will be made either through the standard billing system currently employed by the ISP, or via the phone bill. We realize that many ISPs currently require a credit card to establish an account. We will work with these providers to help finance these new classes of accounts.

Negative impact on Universal Service

The program will not have any impact on Universal Telephone Service. While standard POP-server internet access is available via local phone call to 98% of Americans, there may be the need to explore availability of ISP services in a few of the most rural areas.

Adult content and inappropriate advertising

We do not believe that any censorship standard is appropriate for a governmental program. The service providers will be required to provide screening software to limit objectionable material as desired by the users. In order to keep the users co-payment level as low as possible, some advertising via standard "banner ads" will occur. However, the DOC will be able to create a reasonable "no" list of advertising that could include items like tobacco, alcohol, adult content, etc.

Accountability

While we are confident that there is wide industry support for each of these terms, U.S. Government oversight and resultant accountability is appropriate. We believe that the Board

members of the DOC should be selected by the Administration and Congress, and should be removed at will should an inappropriate policy or allocation of resources be made.

We are all mindful of Gene Sperling's admonition that no good deed goes unpunished in Washington, DC. Each of the above issues is serious and substantive. Each will give opponents an opportunity to criticize and demagogue, perhaps both from left and the right. But we know that no one else has a plan to bring the opportunity of the New Economy into the family room of America's poorest households, and as ardent supporters of the Administration, we have faith in your ability to help us navigate this difficult but extraordinarily important process.

Sincerely,

Garrett Gruener
General Partner, Alta Partners

Wade Randlett
Vice President, Red Gorilla

Eric Schmidt
CEO, Novell

John Luongo
Former CEO, Vantive

Nick Grouf
Chairman & CEO, PeoplePC

Charles Katz
President & CEO, 1stUp.com

Danny Rimer
Partner, The Barksdale Group

J. Neil Weintraut
Partner, 21st Century Internet Venture Partners

Alta Partners

17 December 1999

Honorable William Jefferson Clinton
President of the United States
The White House
Washington, DC 20500

Dear President Clinton,

Under separate cover we have sent to John Podesta the latest details of our proposal for Universal Access to the Internet for lower-income American families.

In short, we believe that it is economically and logistically feasible to give up to 1 million families unlimited internet access for only a $120 million per year federal government subsidy. Our goal is to extend internet access to all Americans who are interested within 5 years. We urge you in the strongest possible way to include a placeholder in your upcoming budget for this important national priority.

As a proof-of-concept, we are currently exploring a "jump-start" program for approximately 500 poor families in the Bay Area, for which we would raise privately the funds necessary for the subsidy that would ultimately be provided by the federal government.

The Digital Divide today is a real problem that will only get worse unless we address it now. As ardent and longtime supporters of your Administration, we believe that this initiative would be an excellent complement to your life-long commitment to bring full educational and economic opportunity to every American.

We each stand ready to help make this idea a reality.

Warmest Regards,

Garrett Gruener
General Partner, Alta Partners

Wade Randlett
Vice President, Red Gorilla

Eric Schmidt
CEO, Novell

John Luongo
Former CEO, Vantive

Nick Grouf
Chairman & CEO, PeoplePC

Charles Katz
President & CEO, 1stUp.com

Danny Rimer
Partner, The Barksdale Group

J. Neil Weintraut
Partner, 21st Century Internet Venture Partners

One Embarcadero Center
Suite 4050
San Francisco, CA 94111

(415) 362-4022
fax (415) 362-6178
alta@altapartners.com

Proposal for the Digital Opportunity Act

No American shall be denied the treasures of the world wide web for want of family resources

Widespread internet access is rapidly becoming a integral part of sustaining our democracy. By acting aggressively now, we can pre-empt a future with a "digital divide" between information have's and have-not's. Further we can use the internet to enhance opportunity for lower-income Americans. We can help people help themselves overcome inadequate education, lack of health and wellness information, and limited job and career prospects. Moreover, the Internet can help accelerate the process of re-inventing government, and thereby promote cost savings and increased efficiency to governments and taxpayers alike. To accomplish this, we must include every interested American in the Internet revolution.

Background

Since 1934 in the name of Universal Service, the Federal Government has acted to ensure that all Americans have affordable access to telecommunications services. When the 1996 Telecommunications act was passed, the FCC established the first specific definition of the "basic package" of essential services that Universal Service encompasses. This currently includes;

> 1) Voice grade access to the public telephone network, with the ability to place and receive calls; 2) touch-tone service; 3) single-party service; 4) access to emergency services, including 911 and Enhanced 911 (which identifies a caller's location); 5) access to operator services; 6) access to interexchange services; 7) access to directory assistance; and 8) Lifeline and Link Up services for qualifying low-income consumers[1]

We propose that the federal government has a legitimate interest in expanding "communications access" to include computing and internet access for low-income Americans, with an income ceiling at either at 130% of poverty level, or as much as $25,000 for a family of four. In exchange for a co-payment between $5.00 and $10.00 per month, qualifying citizens would receive:

1) A new computer, replaced every 36 months, capable of surfing the Web, sending email, storing ample data, and performing common software tasks (word processing, spreadsheets, money management, etc.).
2) Dial-up Internet access.

We believe that in the 21st century, home Internet service will be critical for any citizen to be a productive part of American society. Internet tools like e-mail are becoming integral parts of our communication system. Job searches and online educational courses are

[1] The new definition of Universal Service, Benton Foundation, June 10, 1997 http://www.benton.org/Updates/summary.html

becoming popular Internet activities. When every American becomes connected to the Internet at home there will also be a number of benefits for local, state, and federal Governments. Government services could use this public-private partnership as an effective means of communicating with low-income citizens regarding, among others,

- Health care information
- Tax and Social Security information
- Child welfare information
- Unlimited educational material for children.

The 1998 Department of Commerce report, Falling Through The Net, sums up these benefits quite well.

> Traditionally, our notion of being connected to the nation's communications networks has meant having a telephone. Today, Americans' increased use of computers and the Internet has changed that notion. To be connected today increasingly means to have access to telephones, computers, and the Internet. While these items may not be necessary for survival, arguably in today's emerging digital economy they are necessary for success. As the Department of Commerce has found in its *Emerging Digital Economy reports*, the dramatic growth of electronic commerce and the development of information technology (IT) industries are changing the way Americans work, communicate, purchase goods, and obtain information. Jobs in the new economy now increasingly require technical skills and familiarity with new technologies. Additionally, obtaining services and information increasingly requires access to the Internet.[2]

The 1996 Telecommunications Act describes Universal Service as an "evolving level of telecommunications services" and suggests that any changes should consider;

> The extent to which such telecommunications services-- (A) are essential to education, public health, or public safety; (B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers; (C) are being deployed in public telecommunications networks by telecommunications carriers; and (D) are consistent with the public interest, convenience, and necessity.[3]

We believe that home Internet service satisfies conditions A, C and D and that soon it will satisfy condition B.

Internet Lifeline Service For Qualifying Low Income Consumers

Currently less than 6% of households whose income is under $15,000 are connected to the Internet at home[4]. The monthly cost of an ISP and the cost of computer hardware are the two most significant impediments to home Internet access for low-income Americans.

---

[2] Falling Through the Net: Defining the Digital Divide, US Department of Commerce, July 1999, Page 77 http://www.ntia.doc.gov/ntiahome/fttn99/contents.html

[3] 1996 Telecommunications Act, US Government, Section 254 part (c) http://www.technologylaw.com/techlaw/act.html

[4] Falling Through the Net: Defining the Digital Divide, Chart II-2

> The most important reasons why certain households have never used the Internet is that they "don't want it" or it is too expensive. Although the former is the more important reason overall, the cost factor dominates among low-income groups, Hispanics, single-parent families, the youngest householders, and the unemployed. Policymakers should therefore consider the role of cost as a deterrent to expanding online access.[5]

To make home Internet access affordable for all Americans we propose subsidizing monthly Internet service for low-income consumers. We envision two possible uses for these subsidies. The few low-income consumers who already own a PC or Internet capable device can use their subsidies for free Internet access. Those who do not own their own hardware can use their subsidy to help pay for a combination package of Internet service and hardware if they make a modest monthly "co-payment."

We propose distributing the subsidy in the form of vouchers, allowing qualified households to purchase Internet service from any ISP, or ISP/Hardware provider they desire. Eligibility for this program would be determined in a manner similar to the Federal food stamp program. Eligibility for food stamps is based on citizenship, income and asset ownership. Gross monthly income cannot exceed 130% of Federal Poverty guidelines. Approximately nine million American households are currently eligible for this program.

There are two places that the federal government needs to supply a subsidy to make this service affordable to low-income Americans. Internet service providers and hardware manufacturers. The federal Government need not decide how much should go to each provider, but rather would issue a voucher in the range of $10 per household per month to private-sector partners who meet the minimum criteria spelled out by a supervising body. Hardware manufacturers and internet service providers would work together to create, market, distribute, and service those customers who signed up for their particular package.

Cost Estimates

The Universal Access proposal is built on the following assumptions:

- Internet appliances are becoming extremely affordable.
- There is a strong public policy argument for subsidizing Internet access for underprivileged Americans
- The screen real estate is valuable, and can be sold (with appropriate restrictions) to advertisers
- The cost of bulk ISP services will remain constant (a very conservative assumption)

[5] Falling Through the Net: Defining the Digital Divide, Page 39

For the purposes of this analysis, we have assumed that the hardware and software can be purchased for $360, including a monitor, in quantities exceeding 500,000 units. This assumption is based upon quotes we have seen for similar devices within the last 90 days. We also assume that the co-payment would be $5 per month, and that the net subsidy would be $10 per month. Bulk ISP services are included at a rate of eight dollars per month. We further assume that the screen real estate would be sold by the vendor for five dollars per month (net) in year one, rising to ten dollars per month by year three. The hardware is assumed to have zero value by the end of three years. The result is a net present value of approx. $440, which should provide adequate incentive for multiple vendors to offer a competitive hardware/connectivity package.

The hardware could be either a specially designed consumer device optimized for ease of use, or a full PC. It would include at least a 333 Mhz processor, 32 Mbytes of RAM, built-in speakers, and a monitor. The software would include a fully capable internet browser and an office suite, including word processor and spreadsheet.

We expect that we could distribute up to one million units in the first year of the program, up to four million in year two, and up to nine million in year three.

Timeline

We envision this as a five year program. Within this timeframe we want all low-income consumers who desire home Internet service to have it. This is an ambitious goal, but an attainable one. To accomplish this, the program must be well advertised and designed. Fortunately the Government is not the only organization that will have an incentive to advertise this service. If the voucher system is used, ISP's and computer manufacturers will also have an incentive to advertise the availability of them.

Proposed Program Structure

We propose that a public-private partnership either form a new or charter an existing not-for-profit corporation (e.g., a "Digital Opportunity Corporation"). The Digital Opportunity Corp. (DOC) would be charged with periodically setting technically neutral standards for minimum acceptable hardware, software, and ISP services sufficient to provide a base level of home computing and internet access. In addition, the DOC would have responsibilities for determining eligibility requirements, appropriate advertising policies and managing the overall program. See exhibit 1.

Future

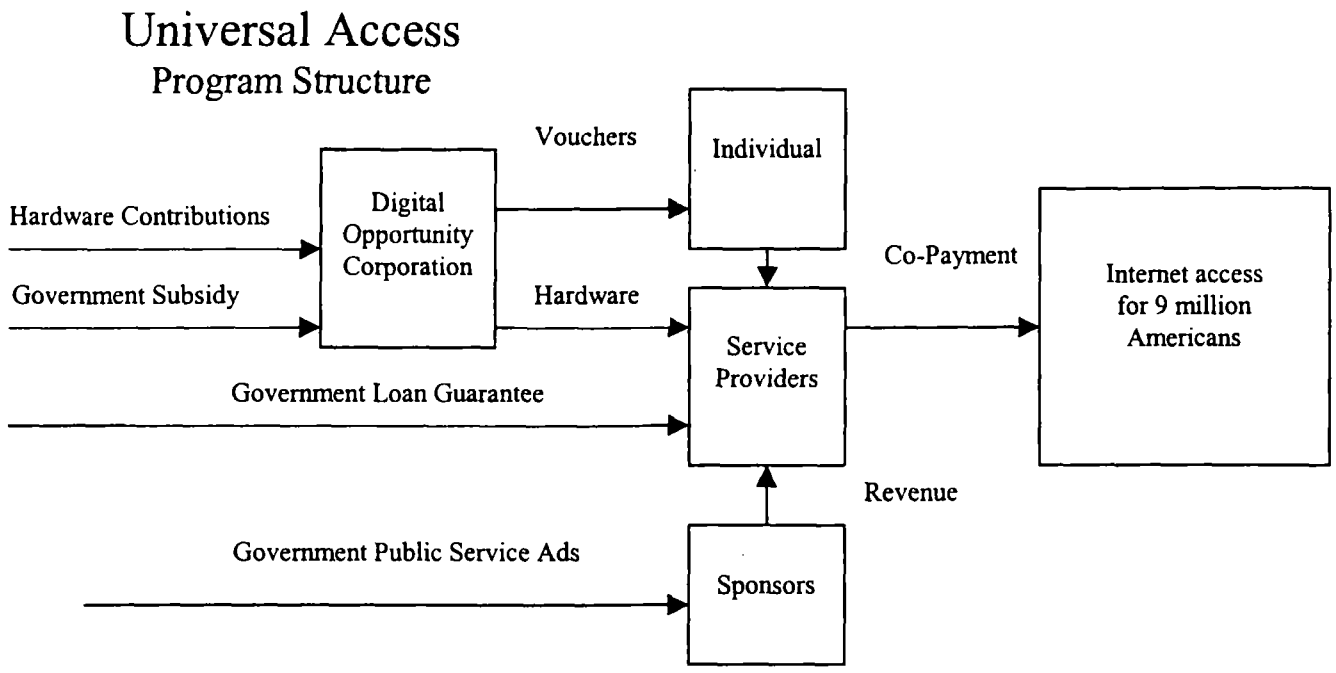
We do not expect that we will have to maintain these subsidies in the future. As more Americans become connected to the Internet, prices for hardware and connectivity will continue to drop. Advertising revenue on the Internet is likely to increase to the point where internet capable devices and their corresponding ISP's are given away for free. Nonetheless we believe that the Government must make the initial push to get these families connected to the Internet today, otherwise they may never get connected. With a subsidy model, rather

than a taxation model, the government may simply phase out its payments as the private market renders the subsidy unnecessary.

Conclusion

The next five years are important ones in the development of the online community in the United States. Competition has done a wonderful job in creating thousands of dial-up ISP's around the nation and the drop in computer prices the past few years has been dramatic. Nonetheless there is an opportunity today for the Government to improve the equitable distribution of this important social good. The low-income consumer could be left behind in today's digital revolution, and it is imperative that they be given effective, high-quality access to computing and communication over the Internet and Web.

Exhibit 1


Universal Access
Program Structure
Vouchers
Individual
Hardware Contributions
Digital Opportunity Corporation
Co-Payment
Internet access for 9 million Americans
Government Subsidy
Hardware
Service Providers
Government Loan Guarantee
Revenue
Government Public Service Ads
Sponsors

Digital-Divide and Manufacturing Initiatives

(BA in millions)

Component	Activities	Option 1	Option 2	Option 3	Comments
		Digital Divide Initiative			
Community Development					
1. Commerce: Economic Development Administration	Grants for technology investments (e.g., broadband deployment) and economic assistance to trade-impacted communities	35	50	50	**IT Infrastructure:** Grants for EZ/ECs to build-out broadband -- high-speed Internet access -- to help small businesses remain competitive and ensure that these communities are not left behind. Could be targeted at Native American communities too. **Trade-Impacted Communities:** $10 million in new money to create Office of Community and Economic Adjustment. Use existing money to double program that helps communities impacted by plant closures. Move funds from public works program to increase Title IX program from $34 million to $68 million. EDA's funding is flexible and can be used for hi-tech and traditional infrastructure and planning. Grants usually small ($5M or less). 2000 enacted and 2001 settlement both $390M.
2. USDA: Rural Utility Service	Support for technology investments (e.g., broadband deployment)	0	0	15	See above. Use Rural Utility Service to help administer IT program if it is large enough.
Innovative Applications					
3. Commerce: Technology Opportunity Program (TOP)	Grants for public-sector and low-income applications of information technology (IT). [Also, $5M non-add in settlement].	20	20	55	***New Applications to Help Close Digital Divide.*** 2000 funding was $15.5M; another $4.5M already provided for 2001. Program helps create innovative applications (e.g., tele-medicine) to help close digital divide. Grants usually very small ($0.5M) and targeted at replicable demonstration projects.

Manufacturing Productivity Improvements					
4. Commerce: Manufacturing Extension Partnership (MEP)	Support for e-commerce outreach and additional MEP centers. [Also, $6M non-add in settlement from planned MEP rampdown; and, $5M nonadd in SBA].	40	40	60	**Expand Number of MEP Centers and Focus on E-Commerce Help.** Currently, there are 75 centers and 300 MEP offices. New centers cost about $2M each. Over two years, could expand MEP to 100 centers – at cost of $25 million in FY2001. Under Option #3, would ramp up number of centers quicker. Rest of funds used for providing e-commerce technical assistance to small manufacturers, working with SBA and USDA. 2000 enacted and 2001 settlement both $105M. Proposed outreach with SBA and USDA to cost about $30M. MEP could deliver kits to 400,000 manufacturers. Costs reduced if firms pay for kits.
Increase Access					
5. Education: Community Technology Centers (CTCs)	More CTCs perhaps with loanable computers to assist low-income families. [Non-add, provided in settlement].	[68]	[68]	[68]	**Triple Community Technology Center Program.** Evidence shows that community technology centers work to provide computer access to low-income Americans -- thereby closing the digital divide. Initiative could combine existing program with a new loanable computer program – that is, people could borrow computers from CTCs, just as they borrow a book from the library.
6. Commerce: National Telecommunications and Information Administration (NTIA)	Competitive grants for Government/ private-sector/family cost-sharing to provide computers and Internet access. Alternatively, funding elsewhere could promote school and library acquisition of hardware to leverage E-rate funding, help students, and allow multiple users. [Education's Literacy Technology Challenge Fund (LTCF), for instance, receives a $100M non-add increase in settlement.]	0	100	100	**Computer Access @ Home.** Provide subsidy of $120/year, combined with industry subsidy of $120/year and an equal family co-payment. Would help 800,000 low-income families get on-line in first year. Would set goal of getting 10 million people on-line within five years. Major problems with initiative: (1) sets goal of hooking up *all* homes before we have met goal of schools/libraries or even set a goal of hooking up all community centers; (2) program structure has not been worked out and may, in the end, be impossible to develop effectively; (3) at-home e-commerce and e-

					mail access probably do not merit government subsidies; and (4) private-sector entities are already doing something similar (e.g., PeoplePC and FreePC) – free computer and Internet access, though advertising is always on the screen.
Subtotal, Digital Divide		**95**	**210**	**280**	
Subtotal, Digital Divide with non-adds	Includes non-adds in Commerce (TOP, MEP) ($11M), SBA ($5M), LTCF ($100M), CTCs ($68M).	**279**	**394**	**464**	
		Manufacturing Initiative			
Community Development					
1. Commerce: Economic Development Administration [Also included in Digital Divide Initiative].	Grants for technology investments (e.g., broadband deployment) and economic assistance to trade-impacted communities	35	50	50	See discussion in Digital Divide section.
Manufacturing Productivity Improvements					
4. Commerce: Manufacturing Extension Partnership (MEP). [Also included in Digital Divide Initiative].	Support for e-commerce outreach and additional MEP centers. [Also, $6M non-add in settlement from planned MEP rampdown; and, $5M nonadd in SBA].	40	40	60	See discussion in Digital Divide section.
7. Commerce: National Institute of Standards and Technology (NIST)	Standards development to promote compatibility of e-commerce applications. [Also, non-adds in settlement: $16M for NIST/NTIA research and $14M for e-commerce statistics in Census and NTIA].	0	0	25	**Help Manufacturing Supply Chains Become More Efficient.** A lack of compatible systems can cause manufacturing supply chains to be less efficient than they could be. Investing in standards work provides economy-wide benefits, but also helps improve specific supply chains that would aid manufacturers. A reasonable addition, perhaps at lower funding, to options 1 or 2.
Trade compliance					

8. Commerce: International Trade Administration	Overseas compliance and additional antidumping resources. [Also, $6M non-add in settlement].	20	24	35	**Dramatic Expansion of Trade Compliance Funding.** Quadruple trade compliance staff for China, double compliance staff for Japan, station compliance experts in foreign countries for first time. A caution, however, is that antidumping enforcement is controversial and can hinder activities that are not predatory.
9. USTR	USTR receives a 7% increase in FTEs in settlement. [$3M non-add]	0	.5	.8	
10. Labor: Grants to International Labor Organization	Child labor enforcement. [Non-add tentatively provided in settlement].	[15]	[15]	[15]	
Export Promotion					
11. Commerce: International Trade Administration	Internet-based outreach. [Non-adds: $2M in settlement and $4M proposed in energy-export/R&D initiative].	10	15	20	**Manufacturing Export Promotion.** Could be targeted at specific manufacturing industries or (to avoid appearing to pick "winners") particular barriers (telecommunications ownership rules, intellectual property, etc.). Other export promotion could also be considered, including Ex-Im Bank and SBA financing, Trade and Development Agency efforts, etc. Ideally, subsidies would be avoided, and efforts focused on reducing barriers and distortions.
Subtotal, Manufacturing		**100**	**130**	**191**	
Subtotal, Manufacturing with non-adds	Includes non-adds in Commerce (MEP, NIST, NTIA, Census, ITA) ($48M), SBA ($5M), USTR ($3M) and child labor enforcement ($15M).	**171**	**201**	**262**	
Grand total new funding	Options (1) and (4) counted only once.	**120**	**250**	**361**	
Grand total with key non-adds	Includes non-adds in Commerce (TOP, NIST, NTIA, Census, ITA) ($53M), SBA ($5M), LTCF ($100M), CTCs ($68M), USTR ($3M), and child labor	**364**	**494**	**605**	

enforcement ($15M).

Draft December 12, 1999

From Digital Divide to Digital Opportunity

During the Clinton-Gore Administration, access to computers and the Internet has exploded. In 1993, few people outside of our nation's universities had even heard of the Internet – today, over 100 million Americans have access to the Internet. Computer penetration has also risen from 24 percent of U.S. households in 1994 to 42 percent in 1998 as the cost of computers has declined.

Access to computers and the Internet and the ability to effectively use this technology are becoming increasingly important for full participation in America's economic, political and social life. People are using the Internet to:

- Find lower prices for goods and services;
- Work from home or start their own business;
- Acquire new skills using distance learning so that they can compete for higher-paying jobs;
- Make better informed decisions about their healthcare needs;
- Plan for a financially secure retirement;
- Track the voting record of their elected officials on the issues they care about; and
- Get more involved in the education of their children by communicating more frequently with teachers, and comparing the performance of their school with other schools in the region.

Unfortunately, there is strong evidence of a "digital divide" -- a gap between those individuals and communities that have access to these Information Age tools and those who don't. In some instances, this divide is actually widening. A July 1999 report from the Department of Commerce, based on December 1998 Census Department data, revealed that:

- Households with incomes of $75,000 and higher are more than *twenty times* more likely to have access to the Internet than those at the lowest income levels, and more than *nine times* as likely to have a computer at home.
- Households with a bachelors' degree or more are more than eight times likely to have a computer than those households at the lowest education level.
- From 1994 to 1998, the percentage of white households with computers increased from 27.1 percent to 46.6 percent – while the percentage of black households with computers increased from 10.3 percent to 23.2 percent. For households with

incomes above $75,000, however, the difference between white and black adoption of computers has virtually disappeared.

There are other aspects of the digital divide as well.

- Low-income households may not be as prepared to take advantage of the opportunities created by these new technologies, because of lower levels of functional and technological literacy.

- Certain minorities (Blacks, Hispanics, Native Americans) are under-represented in the IT industry. This is important because jobs in the IT sector pay almost 80 percent more than the private sector average.

- Telecommunications companies are less likely to offer advanced services (such as high-speed Internet access) to residents and businesses in rural areas or economically disadvantaged regions of the country. Advanced services may be more expensive or not available in rural America because of the lower concentration of customers (teledensity). There is at least anecdotal evidence to suggest that this is becoming an important factor in where businesses locate, particularly given the growing importance of e-commerce and e-business.

- Computers and content on the Web may be inaccessible to people with disabilities, unless they have been designed to be accessible.

Market forces, competition and technological progress will clearly help bridge the digital divide. The semiconductor industry is able to double computing power every 12 to 18 months – which has significantly reduced their cost. Companies are also developing low cost "information appliances" such as the WebTV – which is available for $100. Competition between telecommunications companies and Internet Service Providers is driving down the cost of connectivity.

But clearly, a national campaign to help bridge the digital divide would help accelerate the rate at which we can create digital opportunity for all Americans. We should take advantage of these new technologies to bring America together – not to further divide us along the lines of race and class. A public-private partnership, with an important role for the government as catalyst and convenor – would help create "one America."

I. Universal, affordable access to computers and Internet access at home

The President should set a goal of ensuring that every American that wants it should have affordable access to a computer and the Internet at home, by directly supporting the cost of Internet-connected computers for low-income households.

1. **Direct support for Internet-connected computers for low-income households**

Currently, companies are offering Internet-connected computers at $25-$30 month in a leasing arrangement, with a new computer provided every three years. The cost of this could be split three ways:

- The government could provide $10/month;

- Individual households could provide $5-$10 month;

- The private sector could provide $10/month – through some combination of at or below cost pricing, advertising, and corporate sponsorships at the national or local level. Employers who are interested in helping their employees upgrade their skills using computer-based training is one group of possible corporate sponsors.

Cost: Assuming that the government wanted to start with a pilot of 800,000 households, the cost to the government would be $100 million/year for three years – or $300 million over three years.

Options for consideration

A. No direct government money - just use the "bully pulpit" to try to get a pilot going in this area.

B. Go forward with the proposal -- but link it more to our "welfare to work" proposal by enlisting employers of people who have recently moved off of welfare. The rationale would be that people who move from welfare to work often wind up in jobs paying only $6-$7 hour. An Internet-connected PC would help them acquire new skills using Internet or computer-based training -- e.g. ESL, GED equivalence, basic IT skills, job-specific skills -- and become eligible for higher-paying jobs.

C. Go forward with proposal with a more sweeping "closing the digital divide" rationale.

Implementation/policy issues

1. *Public-private partnership*: An effective public-private partnership should be at the core of this initiative. Private sector and other stakeholders would set up a not-for-profit corporation (the "Digital Opportunity Corporation") with the following responsibilities:

   - Define minimum technical standards for participation in the program to help ensure its integrity. These standards would evolve over time to reflect changing marketplace conditions. These standards would be primarily "performance-

based" (e.g. ability to support full Web access, ability to run word processing and other basic software, etc.)

- Identify partners who can increase awareness of the program (e.g. through public service announcements, celebrity endorsements, civil rights organizations, black churches, local chambers of commerce, etc.)

- Recruit corporate sponsors (e.g. major employers of working poor such as retailers and temp agencies).

- Collect and disseminate "best practices" that emerge at the state and local level.

- Recruit content partners (example is Intuit – which has a program to provide its financial software for free for everyone with an income under x).

- Interact with the government to develop a consensus on important policy issues that emerge.

- Sponsor research (e.g. better understanding of attitudinal or cultural barriers to adoption of information technology using market research)

Recruiting a prominent former high-tech CEO to run the organization would help build bipartisan support.

2. *Eligibility*: Two options:

- Limit to those households with income that is less than 130 percent above the poverty line;

- Expand threshold to those eligible for EITC – but reduce government payment to $60/year for those above 130 percent of poverty line.

3. *Advertising/privacy*: Need to avoid advertising sponsorships from companies such as alcohol and tobacco. All corporate sponsors should have adopted a strong privacy policy that is audited by a third-party organization (e.g. TRUSTe, WebTrust, BBBOnline).

4. *Payments*: Payments would be made to the companies providing below-cost access – to reduce the administrative overhead of the program. Payments from low-income households to companies is an important issue that will require some scrutiny because many of these households do not have credit cards or checking accounts.

5. *Support and repair*: Expanded support for Community Technology Centers could allow them to provide some user support, and to recruit technically-skilled people in the region willing to staff a volunteer help-desk or buddy system.

6. *Government information & services*: One issue is whether the government wants to have certain information or services "pre-loaded" or continuously delivered. Electronic delivery of government information and services could result in cost-savings for the government – and help reduce the net cost of the program to the government because of savings in other areas.

7. *Sunset*: The Administration could announce a sunset for the program – tied to factors such as:

- significant increase in penetration in low-income households
- emergence of a viable business model for free or nominal cost access
- presumption that it would phase out after some fixed period of time (e.g. 5 years)

8. *Access to inappropriate material*: Companies would pledge to help provide filtering and blocking software pre-loaded - and prominent access to the "GetNetWise" web site that gives tips for parents that the industry has developed at the request of Vice President Gore.

II. Digital Opportunity through new content and applications

The government should also support the development of applications and content that will help empower low-income households and communities. Although companies are willing to spend $30 million to develop a Nintendo video-game, or $100 million for a Hollywood movie, very little private sector capital is available for the development of applications that would expand economic and social opportunity for low-income Americans.

Software and digital information has an important economic characteristic that should be explored in the development of applications – namely, that the marginal cost of disseminating it to more people is almost zero. This could create a new economics for the delivery of social services. Traditionally, the cost increases proportionally to the number of people being served. This is not the case with software and digital information.

a. *Micro-enterprises*: Create courseware that will give someone the skills they need to start their own business. Create an online toolkit that would walk someone through the steps needed to start their own micro-enterprise and obtain financing.

b. *Adult literacy*: Develop courseware for adult literacy, GED equivalence, or English as a Second Language.

c. *Information Literacy*:

"Knowledge is of two kinds: we know a subject ourselves, or we know where we can find information upon it." -- Samuel Johnson

According to the American Library Association, an information literate person is "able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively." This skill is obviously becoming increasingly important – because of the increased volume of information.

Librarians are an ideal position to help provide these skills – the Administration could support these efforts at the local level by expanding support for the Institute for Museum and Library Services.

c. *Local information*: Provide local information on public transportation, job opportunities, and child-care.

d. *Job training*: Provide courses that allow low-income households to compete for higher-paying jobs.

Example: SFWorks (a San Francisco non-profit) and e-learning company DigitalThink are working together on a program called "WELFARE-TO-WEB." The program gives former welfare recipents who have entry-level jobs acquire skills such as the use of office software, programming, and networking using DigitalThinks's courseware. They are starting out with a pilot program, but hope to be able to scale to 3,000 participants within 2 years.

e. *Public health*: Communities around the country are beginning to experiment with information technology to improve public health.

Example:

- One county is using geographical information systems to reduce childhood lead poisoning. Using a variety of data sets they can identify neighborhoods with concentrations of (a) older houses; (b) low-income households; and (c) children under 6.

- The Department of Commerce has given a grant to the Michigan Public Health Institute to develop an electronic childhood immunization network for the greater Detroit area. Currently, Michigan has the lowest rate of pre-school immunization. This network is allowing health care providers to have access to the immunization history of the child, generating automatic reminders for parents and doctors, and improving the ability of schools to track a child's immunization status.

f. *Strengthening parental involvement in education*

Example: Hillcrest Elementary School is an inner-city K-5 school in Orlando, Florida. 80 percent of the students received free or reduced-price lunches. Many of the students

speak Vietnamese, Spanish and French and have limited english proficiency. The school purchased WebTV's that children could take home with them to improve their language skills. This also resulted in an increase in parental involvement, which had been low because of language barriers. Parents were encouraged to sign on with their children to help with lessons and to use the school's Web site, which features a weekly newsletter, the school calendar, the daily lunch menu, teachers' email addresses and parenting resources.

Cost: The government could support the development of these applications with a significant increase (+$40 million) in the Commerce Department's Telecommunications Opportunity Program (TOP), which is currently funded at $20 million. This increase in funding would support partnerships between non-profits, foundations, companies, and state and local governments to:

- Develop applications of information technology that will help empower low-income Americans and communities;

- Demonstrate these applications on a pilot basis and evaluating the results;

- Develop strategies for replicating the results in other communities.

This is a highly successful and competitive program. Currently, the Commerce Department program can currently only fund 1 in 15 grants. A recent evaluation of the program found that every federal dollar generated an additional $4 in matching funds, project expansions, and new spin-off activities, and that 90 percent of the projects funded during the first 2 years kept going even after federal funding had stoppped.

The Administration could also increase support for the Institute for Museum and Library Services to expand "information literacy" programs in 80 communities ($250,000 per community – for a total cost of $20 million).

III. Communities

1. Increase support for Community Technology Centers

Current level of support for CTCs is $32.5 million, One option would be to increase by $100 million to $132.5 million.

This complements the "access to the home" initiative by stimulating demand and providing training. Once people feel comfortable using a computer and the Internet in a Community Technology Center, they might purchase one for home use.

An additional $100 million would fund an additional 1,000 centers - ten times the number we were able to fund with the first round of FY99 grants. We know that in the first round of funding, the Department of Education got 750 applications and was only able to fund 40 applications (some applicants supported multiple centers).

2. **Broadband Communities**

The Administration could propose an increase in programs that are designed to promote economic development such as EDA and the Department of Agriculture's Rural Utility Service – targeted to greater use of telecommunications for economic development. The types of projects that would be supported include:

- Aggregation of demand from companies and public institutions to encourage telecommunications companies to build out their networks to rural areas. The cost of high-speed Internet access can be 10 times higher ($2,000 vs. $200) in rural areas than in urban areas because of the cost of sending traffic to a far-away network "point of presence."

- Better use of rights-of-way to speed deployment and encourage competition between multiple telecommunications companies

- Deployment of high-speed networks to inner-cities to provide employment that can be "out-sourced" – such as data entry, call centers, and entry-level programming. This also solves some of the biggest obstacles associated with welfare-to-work – lack of affordable child care and public transportation.

- Lower-cost connectivity to industrial parks and business incubators.

- Trials of wireless and other technologies to find more affordable broadband alternatives for rural communities.

Cost: $50 - $100 million for projects in 50 urban and rural communities - half in EDA and half in Rural Utility Service.

IV. **Tax proposals**

Obviously, there are some tax incentives that could be part of the "digital divide" initiative -- including:

- Increased incentives for donations of computers - change in "basis" or increase the range of eligible recipients to community technology centers or other non-profits.

- Version of Dorgan technology training tax credit that is just targeted to low-income communities, and would include cost of home PC as eligible expense for employer.

Summary of costs

1. **Universal access to the home**

- $100 million for PC/Internet access in 800,000 low-income households - $300 million over 3 years

2. **Content/applications for digital opportunity**

- Triple Telecommunications Opportunity Program - $40 million

- Help libraries in 80 communities establish "information literacy" programs - $20 million

3. **Communities**

- Increase Community Technology Center program to $132.5 million - establish 1,000 new centers - $100 million

- 50 urban and rural "broadband communities" -- $50 - $100 million

4. Tax credits

- Expanded computer donation tax credit. ???

- Technology training tax credit -- just for low-income. ???

Total: ~ $310 - $360 million

Smaller package

1. **Universal access to the home**

- 500,000 households - $60 million

2. **Content/applications for digital opportunity**

- Double Telecommunications Opportunity Program - $20 million

- Help libraries in 80 communities establish "information literacy" programs - $20 million

3. **Communities**

- Increase Community Technology Center program to $100 million - establish 675 new centers - $67.5 million

- 25 urban and rural "broadband communities" -- $25 - $50 million

Cost: $192.5 - $217.5 million

Summary of costs

1. **Universal access to the home**

- $120 million for PC/Internet access in 1 million low-income households - $360 million over 3 years

- Telecommuting tax credit: ??

2. **Content/applications for digital opportunity**

- $40 million – increase in Telecommunications Opportunity Program

- $20 million – help libraries in 80 communities establish "information literacy" programs

3. **Communities**

- $67.5 million to increase Community Technology Center program to $100 million (only $35 million above passback).

- Accelerated depreciation for broadband investment in "New Markets"

- $50 - $100 million for 50 urban and rural "broadband communities"

Total: ~ $300 - $350 million plus cost of tax incentives

WTW
Mcoss r

Draft December 5, 1999

From Digital Divide to Digital Opportunity

During the Clinton-Gore Administration, access to computers and the Internet has exploded. In 1993, few people outside of our nation's universities had even heard of the Internet – today, over 100 million Americans have access to the Internet. Computer penetration has also risen from 24 percent of U.S. households in 1994 to 42 percent in 1998 as the cost of computers has declined.

Access to computers and the Internet and the ability to effectively use this technology are becoming increasingly important for full participation in America's economic, political and social life. People are using the Internet to:

- Find lower prices for goods and services;

- Work from home or start their own business;

- Acquire new skills using distance learning so that they can compete for higher-paying jobs;

- Make better informed decisions about their healthcare needs;

- Plan for a financially secure retirement;

- Track the voting record of their elected officials on the issues they care about; and

- Get more involved in the education of their children by communicating more frequently with teachers, and comparing the performance of their school with other schools in the region.

Unfortunately, there is strong evidence of a "digital divide" -- a gap between those individuals and communities that have access to these Information Age tools and those who don't. In some instances, this divide is actually widening. A July 1999 report from the Department of Commerce, based on December 1998 Census Department data, revealed that:

- Households with incomes of $75,000 and higher are more than *twenty times* more likely to have access to the Internet than those at the lowest income levels, and more than *nine times* as likely to have a computer at home.

- Households with a bachelors' degree or more are more than eight times likely to have a computer than those households at the lowest education level.

- From 1994 to 1998, the percentage of white households with computers increased from 27.1 percent to 46.6 percent – while the percentage of black households with computers increased from 10.3 percent to 23.2 percent. For households with

incomes above $75,000, however, the difference between white and black adoption of computers has virtually disappeared.

There are other aspects of the digital divide as well.

- Low-income households may not be as prepared to take advantage of the opportunities created by these new technologies, because of lower levels of functional and technological literacy.

- Certain minorities (Blacks, Hispanics, Native Americans) are under-represented in the IT industry. This is important because jobs in the IT sector pay almost 80 percent more than the private sector average.

- Telecommunications companies are less likely to offer advanced services (such as high-speed Internet access) to residents and businesses in rural areas or economically disadvantaged regions of the country. Advanced services may be more expensive or not available in rural America because of the lower concentration of customers (teledensity). There is at least anecdotal evidence to suggest that this is becoming an important factor in where businesses locate, particularly given the growing importance of e-commerce and e-business.

- Computers and content on the Web may be inaccessible to people with disabilities, unless they have been designed to be accessible.

Market forces, competition and technological progress will clearly help bridge the digital divide. The semiconductor industry is able to double computing power every 12 to 18 months – which has significantly reduced their cost. Companies are also developing low cost "information appliances" such as the WebTV – which is available for $100. Competition between telecommunications companies and Internet Service Providers is driving down the cost of connectivity.

But clearly, a national campaign to help bridge the digital divide would help accelerate the rate at which we can create digital opportunity for all Americans. We should take advantage of these new technologies to bring America together – not to further divide us along the lines of race and class. A public-private partnership, with an important role for the government as catalyst and convenor – would help create "one America."

I. Universal, affordable access to computers and Internet access at home

The President should set a goal of ensuring that every American that wants it should have affordable access to a computer and the Internet at home.

There would be 2 primary policies for achieving this goal

1. Direct support for Internet-connected computers for low-income households

Currently, companies are offering Internet-connected computers at $25-$30 month in a leasing arrangement, with a new computer provided every three years. The cost of this could be split three ways:

- The government could provide $10/month;

- Individual households could provide $5-$10 month;

- The private sector could provide $10/month – through some combination of at or below cost pricing, advertising, and corporate sponsorships at the national or local level. Employers who are interested in helping their employees upgrade their skills using computer-based training is one group of possible corporate sponsors.

Cost: Assuming that the government wanted to start with a pilot of 1 million households, the cost to the government would be $120 million/year for three years – or $360 million over three years.

Implementation/policy issues

1. *Public-private partnership*: An effective public-private partnership should be at the core of this initiative. Private sector and other stakeholders would set up a not-for-profit corporation (the "Digital Opportunity Corporation") with the following responsibilities:

    - Define minimum technical standards for participation in the program to help ensure its integrity. These standards would evolve over time to reflect changing marketplace conditions. These standards would be primarily "performance-based" (e.g. ability to support full Web access, ability to run word processing and other basic software, etc.)

    - Identify partners who can increase awareness of the program (e.g. through public service announcements, celebrity endorsements, civil rights organizations, black churches, local chambers of commerce, etc.)

    - Recruit corporate sponsors (e.g. major employers of working poor such as retailers and temp agencies).

    - Collect and disseminate "best practices" that emerge at the state and local level.

    - Recruit content partners (example is Intuit – which has a program to provide its financial software for free for everyone with an income under x).

    - Interact with the government to develop a consensus on important policy issues that emerge.

- Sponsor research (e.g. better understanding of attitudinal or cultural barriers to adoption of information technology using market research)

Recruiting a prominent former high-tech CEO to run the organization would help build bipartisan support.

2. *Eligibility*: Two options:

- Limit to those households with income that is less than 130 percent above the poverty line;

- Expand threshold to those eligible for EITC – but reduce government payment to $60/year for those above 130 percent of poverty line.

3. *Advertising/privacy*: Need to avoid advertising sponsorships from companies such as alcohol and tobacco. All corporate sponsors should have adopted a strong privacy policy that is audited by a third-party organization (e.g. TRUSTe, WebTrust, BBBOnline).

4. *Payments*: Payments would be made to the companies providing below-cost access – to reduce the administrative overhead of the program. Payments from low-income households to companies is an important issue that will require some scrutiny because many of these households do not have credit cards or checking accounts.

5. *Support and repair*: Expanded support for Community Technology Centers could allow them to provide some user support, and to recruit technically-skilled people in the region willing to staff a volunteer help-desk or buddy system.

6. *Government information & services*: One issue is whether the government wants to have certain information or services "pre-loaded" or continuously delivered. Electronic delivery of government information and services could result in cost-savings for the government – and help reduce the net cost of the program to the government because of savings in other areas.

7. *Sunset*: The Administration could announce a sunset for the program – tied to factors such as:

- significant increase in penetration in low-income households

- emergence of a viable business model for free or nominal cost access

- presumption that it would phase out after some fixed period of time (e.g. 5 years)

2. Telecommuting tax credit

The second policy instrument to encourage universal access to Internet-connected computers would be a telecommuting tax credit. A similar legislative proposal was made by Representative David Price (H.R. 1892 – the Home Telecommuter Tax Policy Act, introduced in the 105th Congress).

Under current law, employers can treat up to $60/month [indexed for inflation since 1993] in commuting expenses as a fringe benefit which is excluded from gross income. Under 132(f) of the Internal Revenue Code, the definition of a "qualified transportation fringe" is currently limited to a transit pass, transportation in a commuter highway vehicle, and parking. The proposal would expand the definition of a qualified transportation fringe to include legitimate telecommuting expenses – such as a personal computer and dial-up or high-speed Internet connectivity.

This credit would have the added advantage of:

- Allowing people to spend more time with their family;

- Reducing traffic congestion; and

- Improving the environment and reducing the emission of greenhouse gases.

II. Digital Opportunity through new content and applications

The government should also support the development of applications and content that will help empower low-income households and communities. Although companies are willing to spend $30 million to develop a Nintendo video-game, or $100 million for a Hollywood movie, very little private sector capital is available for the development of applications that would expand economic and social opportunity for low-income Americans.

Software and digital information has an important economic characteristic that should be explored in the development of applications – namely, that the marginal cost of disseminating it to more people is almost zero. This could create a new economics for the delivery of social services. Traditionally, the cost increases proportionally to the number of people being served. This is not the case with software and digital information.

a. *Micro-enterprises*: Create courseware that will give someone the skills they need to start their own business. Create an online toolkit that would walk someone through the steps needed to start their own micro-enterprise and obtain financing.

b. *Adult literacy*: Develop courseware for adult literacy, GED equivalence, or English as a Second Language.

c. *Information Literacy*:

"Knowledge is of two kinds: we know a subject ourselves, or we know where we can find information upon it." -- Samuel Johnson

According to the American Library Association, an information literate person is "able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively." This skill is obviously becoming increasingly important – because of the increased volume of information.

Librarians are an ideal position to help provide these skills – the Administration could support these efforts at the local level by expanding support for the Institute for Museum and Library Services.

c. *Local information*: Provide local information on public transportation, job opportunities, and child-care.

d. *Job training*: Provide courses that allow low-income households to compete for higher-paying jobs.

Example: SFWorks (a San Francisco non-profit) and e-learning company DigitalThink are working together on a program called "WELFARE-TO-WEB." The program gives former welfare recipents who have entry-level jobs acquire skills such as the use of office software, programming, and networking using DigitalThinks's courseware. They are starting out with a pilot program, but hope to be able to scale to 3,000 participants within 2 years.

e. *Public health*: Communities around the country are beginning to experiment with information technology to improve public health.

Example:

- One county is using geographical information systems to reduce childhood lead poisoning. Using a variety of data sets they can identify neighborhoods with concentrations of (a) older houses; (b) low-income households; and (c) children under 6.

- The Department of Commerce has given a grant to the Michigan Public Health Institute to develop an electronic childhood immunization network for the greater Detroit area. Currently, Michigan has the lowest rate of pre-school immunization. This network is allowing health care providers to have access to the immunization history of the child, generating automatic reminders for parents and doctors, and improving the ability of schools to track a child's immunization status.

f. *Strengthening parental involvement in education*

Example: Hillcrest Elementary School is an inner-city K-5 school in Orlando, Florida. 80 percent of the students received free or reduced-price lunches. Many of the students speak Vietnamese, Spanish and French and have limited english proficiency. The school purchased WebTV's that children could take home with them to improve their language skills. This also resulted in an increase in parental involvement, which had been low because of language barriers. Parents were encouraged to sign on with their children to help with lessons and to use the school's Web site, which features a weekly newsletter, the school calendar, the daily lunch menu, teachers' email addresses and parenting resources.

Cost: The government could support the development of these applications with a significant increase (+$40 million) in the Commerce Department's Telecommunications Opportunity Program (TOP), which is currently funded at $20 million. This increase in funding would support partnerships between non-profits, foundations, companies, and state and local governments to:

- Develop applications of information technology that will help empower low-income Americans and communities;

- Demonstrate these applications on a pilot basis and evaluating the results;

- Develop strategies for replicating the results in other communities.

The Department of Commerce should also be directed to find other agency partners, which might be interested in co-funding the development of particular applications.

The Administration could also increase support for the Institute for Museum and Library Services to expand "information literacy" programs in 80 communities ($250,000 per community – for a total cost of $20 million).

III. Communities

1. Increase support for Community Technology Centers

Current level of support for CTCs is $32.5 million, OMB passback is $65 million. One option would be to increase to $100 million.

This complements the "access to the home" initiative by stimulating demand and providing training. Once people feel comfortable using a computer and the Internet in a Community Technology Center

2. Accelerated Depreciation for Broadband Deployment in Underserved Communities

To accelerate investment in broadband in underserved urban and rural communities, the Administration could propose expensing or accelerated depreciation for broadband deployment in "New Markets."

Today, most Americans access the Internet using a regular phone line, sending and receiving data at 28 or 56 kilobits per second. However, applications such as video-conferencing and e-business require high-speed (broadband) networks capable of transmitting millions of bits per second. Increasingly, businesses will not locate in communities without competitively-priced access to broadband networks.

Broadband access to the home will also support a richer set of applications, such as distance learning, home health care, and telecommuting. By encouraging telecommunications companies to invest in broadband networks in all regions of the country – we can avoid the next generation of the digital divide problem – unequal access to advanced services.

We could use the same definition of underserved area as the one used to define "New Markets" – census tracts where at least 20 percent of the population is beneath the poverty level, or where median family income is less than 80 percent of median family income for the surrounding area.

3. **Broadband Communities**

The Administration could propose an increase in programs that are designed to promote economic development such as EDA and the Department of Agriculture's Rural Utility Service – targeted to greater use of telecommunications for economic development. The types of projects that would be supported include:

- Aggregation of demand from companies and public institutions to encourage telecommunications companies to build out their networks to rural areas. The cost of high-speed Internet access can be 10 times higher ($2,000 vs. $200) in rural areas than in urban areas because of the cost of sending traffic to a far-away network "point of presence."

- Better use of rights-of-way to speed deployment and encourage competition between multiple telecommunications companies

- Deployment of high-speed networks to Indian Country and inner-cities to provide employment that can be "out-sourced" – such as data entry, call centers, and entry-level programming. This also solves some of the biggest obstacles associated with welfare-to-work – lack of affordable child care and public transportation.

- Lower-cost connectivity to industrial parks and business incubators.

- Trials of wireless and other technologies to find more affordable broadband alternatives for rural communities.

Cost: $50 - $100 million for projects in 50 urban and rural communities.

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: PRESIDENTIAL DIRECTIVE ON CREATING OPPORTUNITIES FOR ALL AMERICANS IN THE INFORMATION AGE

Information tools, such as the personal computer and the Internet, are increasingly critical to economic success and full participation in all aspects of American society. People with computers and Internet access can use it to find a job, acquire new skills, start a small business, get lower prices for goods and services, and become a more informed citizen.

Currently, not all Americans are enjoying the benefits of the Information Revolution. In July 1999, the National Telecommunications and Information Administration issued a report, *Falling Through the Net: Defining the Digital Divide*, which found a growing gap between those with access to these tools and those without. Black and Hispanic households are two-fifths as likely to have Internet access as white households. Furthermore, households with incomes of $75,000 and higher, in urban areas, are more than *twenty times* as likely to have access to the Internet than those at the lowest income levels, and more than *nine times* likely to have a computer at home. As information technology plays an ever-increasing role in Americans' economic and social lives, we cannot afford to leave anyone behind.

Fortunately, competition and advances in technology are driving down the cost of computers and Internet access, which will make these new Information Age tools affordable for more and more Americans. I believe that we should set a national goal of making computers and Internet access affordable for every American that wants it. Furthermore, we should explore ways of using technology to expand the circle of opportunity for those Americans who have not yet enjoyed the benefits of our economic prosperity.

Accordingly, I am directing executive departments and agencies to take the following specific actions that will help to ensure that all Americans benefit from advances in information technology:

1. I direct the Secretary of Commerce to work with the private sector to develop a national strategy for making access to computers and the Internet affordable for all Americans, with the goal of significantly narrowing the "digital divide".

2. I direct the Secretary of Commerce to continue to measure the level of connectivity of Americans to telecommunications and information tools, and report annually on examining the importance of income, education, race, gender, geography, and age.

3. I direct the Secretaries of Education, Housing and Urban Development, Health and Human Services, and Labor to:

    - Expand our growing network of Community Technology Centers to provide access to

technology for those Americans that can't afford it;

- Encourage the development of information technology applications that will help empower low-income Americans - such as computer-based training that would give someone the skills they need to start and manage their own small business.

4. I direct the Secretaries of Education and Labor to work with the private sector to upgrade the information technology skills of America's workforce, particularly workers living in disadvantaged urban and rural communities. Jobs in the information technology sector are paying almost 80 percent more than the average private sector wage.

5. I direct the Secretary of Commerce, the Secretary of Education, and the Secretary of Housing and Urban Development to highlight and disseminate the lessons learned from their grant programs and educational technology initiatives, with particular emphasis on underserved citizens, in order to increase the number of communities across the nation that are reaping the benefits of information technologies for their residents.

6. The directives in sections 1-5 of this memorandum and my July 1, 1997, directive shall be conducted subject to the availability of appropriations and consistent with agencies' priorities and my budget.

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: PRESIDENTIAL DIRECTIVE ON ELECTRONIC GOVERNMENT

This administration has put a wealth of information online. But the public still stands in-line when it comes to common government services. Online today, you can order a book with a click, refinance a house in a day, or sign a contract across the globe, but when it comes to most federal services it can still take a paper form and weeks of processing for government services as simple as a change of address.

As we enter the next century, the public deserves nothing less than a government that keeps pace with the dramatic changes that are taking place in the online delivery of information and services.

While government agencies have made some progress and have created "one-stop-shopping" access to information within their agency web sites, these efforts have lacked the ability to promote government services in a way that is meaningful to the average citizen who first has to know which agency provides the service they need. There also has been little effort to view government information by type or category of information and service that is meaningful for people's needs, not by agency.

As public awareness and Internet usage increases, the demand for on-line government interaction with simplified and standardized ways to access all government information and services become increasingly important. At the same time, the public must have confidence that their on-line communications with the government are secure and protective of privacy.

Private sector Internet Service Providers (ISPs) have and will continue to build their own Government Internet Portals as a means to create a doorway to government information and service at all levels of government, local, state or federal. As the private sector builds Government Internet Portals, the Administration believes that it is in the Nation's best interest to coordinate with industry's efforts to enhance and streamline access to government information and on-line transactions through a common, easy-to-use entry point.

What is the Government Already Doing to Help Citizens through Online Services? The digital revolution requires a more efficient government and providing unprecedented access to American citizens. In key agencies, providing government services on-line is transforming what had been slow-bureaucratic paper-based systems into seamless and speedy interactions. This medium provides unprecedented gains in efficiency and speed of service delivery.-

Examples of leading government efforts to provide access to traditional government

services on-line include:

- Taxpayers can download and retrieve publications and forms as well as file taxes electronically with the Internal Revenue Service. Last year over 10% (24.6 Million) of taxpayers filed their returns online.
- Citizens can look for federal job postings and employers can search tens of thousands resumes electronically.
- Students can apply for financial aid. The Department of Education's Office of Student Financial Aid processed 672,728 loan applications electronically in the '98-99 loan cycle.
- Consumers can access environmental information specific to local neighborhoods about drinking water, Superfund sites, air pollution, toxic releases, and hazardous waste.
- Over 100 million citizens will be able to access Census forms in year 2000.
- People can now buy postal products on-line, including stamps.
- Visitors at over 1,900 recreation sites can make reservations for more than 50,000 campsites and facilities.
- Peace Corps volunteers can apply online.

In addition to these individual activities, a prime component of building an electronic government that all citizens can trust is providing a secure electronic path between government and citizen. For electronic transactions to flourish over the Internet, government must verify the identity of individuals and ensure that data transferred are secure. To achieve these goals, the private sector is increasingly using an approach called "public key" technology, which provides digital signatures to verify individuals and keep their transmissions private. By adopting public key technology, the government is beginning to promote secure transactions, enabling large-scale electronic commerce to grow.

This leads to another important component to build citizen trust in government – the protection of personal privacy. In June of this year the Director of the Office of Management and Budget directed all federal agencies to post privacy policies on their websites by September 1. 100% of federal agencies have done so. This directive also requires federal agencies to, by December 1, provide links to their privacy policies at all major points of entry and on other web pages where substantial personal information is collected. Also, just as a security assessment is conducted before federal agencies built new systems, we are working toward developing privacy assessments at such times.

The Administration has improved its service to the American people through greater use of the Internet and other electronic means in conducting their business. As the Nation enters the 21st Century, the Government has created an array of electronic services to ensure performance equal to the technological changes taking place in the American economy. But we must do more.

I therefore direct the following agencies, working with appropriate federal agencies, to take the following actions:

1. Create one stop access for all citizens to the entire universe of existing government information. I direct the Director of the General Services Administration in coordination with National Partnership for Reinventing Government, the Chief Information Officer's Council, the Government Information Technology Services Board, other appropriate agencies and the private sector to provide access to government information organized not by agency, but by the type of service or information that people may be looking for (including information to assist students, seniors, and businesses).

2. Eliminate the need to stand in Government Lines. I direct all the Heads of all Federal agencies to make available online, by December 2000, all the forms needed for the top 500 government services. By December 2003, all transactions should be available online for actual processing of services online, consistent with the Government Paperwork Elimination Act. To achieve this goal, I further direct the Director of the Office of Management and Budget to oversee agency development of responsible strategies to make all transactions available on line.

3. Government agencies can save taxpayer money through increased use of electronic commerce. I direct the Heads of all Federal agencies to promote the use of electronic commerce where possible for faster, cheaper ordering on federal procurements.

4. Government should lead by example in its use of technology. I direct the Heads of all Federal agencies to continue to build good privacy practices into their web sites, by posting privacy policies as directed by the Director of the Office of Management and Budget and by adopting and implementing information policies to protect children's information on web sites that are directed at children. I also direct federal agencies to ensure disability access on federal websites.

5. Technology should be used to permit greater access for citizens to their government officials. I direct the Heads of all Federal agencies to create a public e-mail address through which citizens can contact the agency with questions, comments, or concerns, thereby making government more accessible to citizens.

6. Citizens should be able to receive benefit assistance quickly and safely through the use of the Internet. I direct the Secretaries of Health and Human Services, Education, Veterans Affairs, and Agriculture; the Director of the Social Security Administration; and the Director of Federal Emergency Management Agency, working closely with other Federal agencies that provide benefit assistance to citizens, to test and make a broad range of services available though private and secure electronic use of the

Internet.

7. Citizens should be able to conduct business with their Government through a private and secure electronic transaction path. I direct the Administrator of the General Services Administration, in coordination with the Secretary of Commerce, the Government Information Technology Services Board, National Partnership for Reinventing Government, and other appropriate agencies and organizations, to ensure that agencies have the ability to communicate across agencies and with the public seamlessly, securely and effectively through the use of public key technology. In light of this goal, the Administrator will seek to issue at least 100,000 digital signatures to enable secure communication with the government by December 2000.

8. Technology should make democracy more accessible to its citizens. I direct the Director of the National Science Foundation, working closely with the Federal Election Commission, to conduct a one year study examining the feasibility of online voting.

9. Because the capabilities of the Internet are continuously improving, I direct agencies to develop a strategy for upgrading their capacity to use the Internet to become more open, efficient, and responsive, and to more effectively carry out their mission. At a minimum, this strategy should involve:

- Expanded training of federal employees, including employees with policy and senior management responsibility;

- Identification and adoption of "best practices" implemented by leading public and private sector organizations;

- Recognition for federal employees who suggest new and innovative agency applications of the Internet;

- Partnerships with the research community for experimentation with advanced applications;

- Mechanisms for collecting input on agency use of the Internet from its stakeholders; and

- Increased ability to contract with the private sector.

10. The directives in sections 1-9 of this memorandum and my July 1, 1997, directive shall be conducted subject to the availability of appropriations and consistent with agencies' priorities and my budget.

November 24, 1999

PRESIDENTIAL DIRECTIVE ON THE E-SOCIETY

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

The Internet and other information and communications technologies are changing the way we work, learn, communicate with each other, and do business. These technologies are shaping our economy and our society in the same way that the steam engine and electricity defined the Industrial Age.

In recent years, information technology has driven the U.S. economy, accounting for one-third of U.S. economic growth and generating jobs that pay almost 80 percent more than the private sector average. All businesses are scrambling to use the Internet to increase productivity, boost exports, cut the time required to develop new products, and forge closer relationships with customers and suppliers. By 2003, e-commerce in the U.S. alone could exceed $1 trillion per year. For these reasons, my Administration has pursued a market-led approach to global electronic commerce, that relies whenever possible on private sector leadership and seeks to eliminate legal and regulatory barriers to e-commerce.

But the Internet has the potential to enhance citizenship as well as commerce. Unlike previous media, the Internet makes it much easier for individuals to be producers as well as consumers of information. Used creatively, the Internet and information technology more generally can be a powerful tool for tackling some of our toughest social challenges as well as fostering economic growth. Information technology can and is being used to make it easier for working adults to acquire new skills, increase access to healthcare in isolated rural communities, improve the quality of life for people with disabilities, and strengthen our democracy. Caregivers for people with Alzheimer's use the Internet to lend each other moral support. Workers in several high-tech companies are helping students improve their performance in math and science and go on to college by becoming "tele-mentors." A society that uses information technology to expand opportunity and improve the quality of life for all of its citizens is an "e-society."

Technology is not the answer to all of our problems. Indeed, it can often create new ones, such as the erosion of our personal privacy or access by children to inappropriate content. But the constructive uses of information technology deserve a more prominent place on the national agenda. This is particularly true given the increased adoption of computers and the Internet, the dramatic reduction in the cost of processing, transmitting and storing information, and the growing sophistication of Internet applications.

We have already made progress in harnessing the power of information technology to meet broad societal objectives. For example, the Administration has led a national effort to ensure that all of our children are technologically literate. Our strategy, which involves connecting every classroom to the Internet, increasing access to multimedia computers in the classroom, training teachers, and encouraging the development of high-quality educational software, has already

delivered significant results.

However, we can and must do more. Accordingly, I am directing agencies to take specific actions that will promote the broader social benefits of the Information Revolution, and allow more Americans to enjoy the benefits of information technology.

As agencies move forward to promote the "e-society" – they should be guided by the following considerations:

- Consistent with the Administration's e-commerce policy, agencies should adopt policies that will remove barriers to private sector investment in Internet applications.

- The goal is not solely or even primarily to identify federal actions that can broaden the benefits of information technology, but to explore partnerships with companies, state and local governments, non-profit organizations, foundations, professional societies, and universities.

- Agencies should explore innovative mechanisms for fostering a national discussion on the potential of the e-society, which will surely add to the agenda outlined below.

- Agencies should consider a wide range of policies to promote the e-society – including the elimination of legal and regulatory barriers to IT applications, support for pilot projects, the establishment of national goals, investment in research and development, promotion of open standards, support for training, and making the government a leading-edge user of information technology.

- Agencies should review the recommendations of the President's Information Technology Advisory Committee, particularly as they relate to the need to support research related to IT applications with broad societal benefits.

I direct the following agencies, working with other appropriate federal agencies, to take the following actions:

1. Information technology can be used to expand access to higher-quality, more cost effective health care. It can provide access to medical specialists in under-served rural communities and inner-city clinics, allow people to make better decisions about their health care needs using reliable consumer health information, reduce paperwork and administrative costs, and allow doctors to keep up with the latest medical literature. I direct the Secretary of Health and Human Services to identify additional steps that can be taken to promote these and other health care applications of information technology.

2. The Internet can make it easier for parents to evaluate the performance of schools in their communities. I direct the Secretary of Education to support and encourage states and local communities to make "school report cards" available on the Internet. I direct the Secretary of the Interior to make "school report cards" on Bureau of Indian Affairs

schools available on the Internet.

3. Distance learning can allow people to learn and acquire new skills at a time, place, and pace that is convenient for them. This is particularly important for adults who are trying to balance the competing demands of work and family, and who often find it hard to take advantage of classroom-based instruction. I direct the Secretaries of Education and Labor to work with states and institutions of higher education to remove legal and regulatory barriers to high-quality distance learning, to increase awareness of the availability of distance learning as an alternative means of education and training, and to find ways to promote the earning of credentials through distance learning. I direct the Secretary of Education to assist the Tribal Colleges and Universities in developing associate and baccalaureate programs in information technology, using innovative distance learning technology to maximize learning options and potential for successful completion.

4. Educational technology can change the way teachers teach and students learn, and prepare students for the high-tech workplace of the 21st century. Students can take "virtual field trips" to Mars, conduct research by tapping into the Library of Congress, and log on to a remote supercomputer to conduct a science experiment. I direct the Secretary of Education to propose the next phase of the Administration's Educational Technology Initiative. Building on the Administration's success in connecting classrooms to the Internet, the updated strategy should address teacher training, the integration of technology in the curriculum, evaluation of technology, the market for educational software and content, the need for more multimedia computers in the classroom, and the need for investments in educational technology R&D that could revolutionize teaching and learning in the 21st century.

5. Telecommuting may make it easier to help people move from restrictive physical workplace locations to virtual offices located anywhere. This would help address several of the biggest barriers to employment -- childcare, elder care, transportation and accessibility for employees with disabilities. I direct the Secretary of Labor to determine how a flexible workplace might be used to help more disabled Americans get jobs; and improve economic revitalization by providing jobs for Americans located in geographic regions outside traditional commuting areas.

6. New technologies such as speech recognition or text-to-speech can allow Americans with disabilities to use IT. This will improve their quality of life, and make it easier for them work. I direct the Secretary of Education and the Director of the National Science Foundation to develop a research agenda for making the Internet and information technology more usable by persons with disabilities. I direct the Secretary of Commerce to encourage the private sector to make Web content, software and development tools more accessible for people with disabilities by adopting the technical standards of the Web Accessibility Initiative.

7. Information technology can help us protect our environment for future generations of Americans. It can allow companies to easily discover manufacturing techniques that reduce pollution,

provide real-time environmental information, and give communities more accurate information about the environmental challenges they face. I direct the Administrator of the Environmental Protection Agency to develop a national strategy for promoting these and other environmental applications of information technology.

8. It is critical that rural Americans be full participants in the Information Revolution, since information and communications technology can help spark economic development and overcome the tyranny of distance. Applications such as distance learning and telemedicine are particularly important for rural communities. I direct the Secretary of Agriculture to identify additional services that can be delivered electronically to rural Americans, such as the results of federally-funded research at our nation's land-grant universities, and to develop the policies needed to promote the availability of advanced telecommunications services in rural and tribal communities.

9. I direct all Cabinet agencies to select at least one important policy area where they harness our "laboratories of democracy" by electronically collecting and disseminating best practices at the state and local level, and supporting "communities of practice" that can easily and effectively share knowledge and expertise. This effort shall be coordinated through the President's Management Council.

10. Information technology can strengthen our civil society by enhancing the capability of non-profit organizations. Already, non-profit organizations are using IT to increase adoption of children with special needs, match volunteers with non-profits that need them, make it easier for people to contribute, and ensure that food does not go to waste. I direct the Secretary of Commerce to identify policies that will encourage more effective use of IT by non-profit organizations.

11. Geospatial information can support decision-making on sustainable development and other important issues by making it easier to "see and understand" information about our local communities. I direct the Secretary of Interior identify policies that will accelerate the use of geospatial information systems at the state and local level.

12. Information technology can improve our ability to detect and respond to natural and man-made disasters. I direct the Director of the Federal Emergency Management Agency to partner with research universities and the private sector to apply advances in information technology to managing the consequences of natural and man-made disasters.

13. The Federal government is the custodian of such things as the Apollo 11 command module, Rose Kennedy's personal tour of the John F. Kennedy birthplace, the Gettysburg battlefield, Ansel Adams photographs of Yosemite, the compass Lewis and Clark used to explore the American West, immigration records of Ellis Island, and Thomas Edison's laboratory notes. The Internet could be used to create a Digital Library for Education that would put these and other educational and cultural resources at the fingertips of our children. The Digital Library for Education should also include hands-on, interactive content that makes math and science come alive and enables students to "learn by doing" -- and tools

to make it much easier for students and teachers to find high-quality resources in math and science. I direct the Secretary of the Smithsonian Institution, the Director of the National Science Foundation, the Director of the National Park Service, and the Director of the Institute of Museum and Library Services to work with the private sector and cultural and educational institutions across the country to create such a library.

14. Protecting public safety is one of our most important responsibilities, and information technology can provide powerful new crime-fighting tools to law enforcement and the public. Information technology can be used to build partnerships between federal, state, and local law enforcement agencies and between law enforcement and the communities they serve. In addition, information technology can empower citizens and law enforcement officers to become problem solvers, promoting public safety block by block, community by community. Therefore, I am asking the Attorney General to work with federal, state and local law enforcement agencies to harness the promise of information technologies to make our Nation's communities safer.

Companies rush to bring you Net for free

Untapped market: 33 million have yet to go online

By Paul Davidson
USA TODAY

Free Internet access, a tantalizing service that has curiously languished, is expected to soar as Web portals such as Yahoo and Excite At Home join traditional retailers in a scramble to lure the 33 million U.S. households yet to go online.

Kmart, Yahoo and Softbank said Wednesday that they will team to offer customers free Internet access and shopping services at a new e-commerce site, BlueLight.com.

The announcement comes amid reports that Excite At Home, the largest high-speed Net access provider, is on the verge of partnering with free Web access provider 1stUp.com for a free dial-up service.

Analysts say the firms are reacting to a similar deal between 1stUp and AltaVista in July. In just a few months, that partnership has signed up 1 million subscribers.

In each case, the Internet service provider benefits from the marketing clout of an established Internet or bricks-and-mortar brand. The merchant draws more viewers, boosting e-commerce sales and ad rates by becoming the start page of the ISP. "You're going to start to see mainstream consumer brands subsidizing Internet access for high-value customers," says analyst Emily Meehan of the Yankee Group.

Until recently, free access providers have attracted only about 4 million customers. Top player NetZero, with 2 million, lost $14.9 million last quarter.

Their struggles are largely blamed on limited marketing budgets. And with no subscription fees, they rely solely on ad revenue. By collecting personal data about customers, they target them with customized ads, charging a 10% to 25% premium on ad rates. "Many consumers balk at the request for more personal information," Meehan says. She also says ad responses have been disappointing.

Customer service, meanwhile, is spotty, analysts say, with subscribers frustrated by frequent busy signals.

But as high-speed Net access at $40 a month grows in popularity, run-of-the-mill service — at up to $21.95 a month — will increasingly become a commodity, experts say.

By 2003, analysts say, up to 25% of Internet households will have free Net access.

Merchants will use free access to retain customers, Meehan says. Brokerage J.B. Oxford offers free access to customers with at least $2,000 in their checking accounts.

Eventually, the trend will halve the prices of leading ISPs, says Zia Wigder of Jupiter Communications. But America Online President Bob Pittman says, "At the end of the day, customers want a full, robust ISP."

SEC charges trio with using Net to inflate firm's stock

By John Waggoner
USA TODAY

The Securities and Exchange Commission has charged three California men with using the Internet to drive the stock of a bankrupt printing company from 13 cents a share to $15 — and netting $364,000 before they were caught.

The stock: NEI Webworld, a Dallas printing company that filed for bankruptcy in 1998 and is now being liquidated.

The accused: Arash Aziz-Golshani, 23, of Beverly Hills and Allen Derzakharian, 26, of La Crescenta, both recent UCLA graduates, and Hootan Melamed, 24, of Pomona.

The SEC claims the three created more than 50 computer accounts at UCLA and used several to spread a rumor that a company was going to buy NEI. They used other accounts to talk up the stock in Internet chat rooms.

The stock closed at 13 cents a share Nov. 12. On Nov. 15, it shot to $15, then plummeted when no buyout was announced.

SEC Enforcement Director Richard Walker says, "If you use the Internet to manipulate our securities markets, we can and will find you."

"My client denies he affected the market the way the government alleges," says Mark Werksman, Melamed's lawyer. Aziz-Golshani's lawyer declined to comment. Lawyers for Derzakharian couldn't be reached.