Withdrawal/Redaction Sheet
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	From: LDaly@doc.gov To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)
002. email	From: Jan-M Williams To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)
003. email	From: Deborah Vincent To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)
004. email	From: Anthony Haynes To: Natasha Bilimoria Re: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)
005. email	From: Paul Richman To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)
006. email	From: Julie Kaminkow To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)
007. email	From: John Gomperts To: Natasha Bilimoria Re: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (2 pages)	03/10/2000	b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System [Email]
OPD ([Digital Divide...])
OA/Box Number: 250000

FOLDER TITLE:
[03/08/2000 - 03/10/2000]

2019-0203-F
jn692

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 8-MAR-2000 14:48:49.00

SUBJECT: digital divide call to action

TO: Maura.colleton@wcom.com@inet (Maura.colleton@wcom.com@inet [UNKNOWN])
READ:UNKNOWN

TEXT:

Maura:

This is the call to action.

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D88]ARMS26038047X.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

A NATIONAL CALL TO ACTION FOR DIGITAL OPPORTUNITY

YES, WE SUPPORT THE CALL TO ACTION AND ARE COMMITED TO TAKING CONCRETE STEPS TOWARD MEETING THE TWO NATIONAL GOALS FOR DIGITAL OPPORUTNITY.

COMPANY/ORGANIZATION NAME:

_____

PRESIDENT/CEO: _____

ADDRESS: _____

_____

_____

PHONE: _____ **FAX:** _____

E-MAIL: _____

PLEASE RETURN THIS FORM BY MARCH 10th TO:

xxxxxxxxxxxxxxxx

FROM DIGITAL DIVIDE TO DIGITAL OPPORTUNTY: A NATIONAL CALL TO ACTION

Access to information technology and the Internet and the ability to use this technology effectively are becoming increasingly important to full participation in America's economic, political and social life. While computer and Internet access has exploded in recent years, America faces a "digital divide" -- a gap between those who have access to Information Age tools and the skills to use them and those who don't.

America has an important choice to make. We can allow unequal access to deepen the existing divisions along the lines of race, income, education level, geography, and disability -- or we can use technology as a powerful tool to help make the American dream a reality for more citizens. To help create digital opportunity for more Americans, we must create strong partnerships between government, industry, and the rich mosaic of America's civil society -- including educators, labor unions, librarians, civil rights leaders, faith-based organizations, foundations, volunteers, and community-based organizations.

As companies, non-profit organizations, and individuals, we are committed to taking concrete steps to meet two critical national goals: (1) Ensuring Access To 21st Century Learning Tools For Every Child In Every School; and (2) Expanding Digital Opportunity For Every American Family And Community.

GOAL ONE: 21ST CENTURY LEARNING TOOLS FOR EVERY CHILD IN EVERY SCHOOL

For children to succeed, they need to master basic skills at an early age. A critical element of this is the need for information and technological literacy. To help achieve these aims, we must focus on a comprehensive approach to integrating technology into teaching and learning while recognizing that -- as powerful as technology is -- it is no substitute for an inspiring teacher or a loving parent. Together, we must:

1. Connect every classroom to the Internet
2. Ensure that all students have modern multi-media computer access, ideally at a ratio of 1 computer for every 4-5 students
3. Ensure that teachers are technologically literate and can integrate technology into the curriculum
4. Make available high quality educational software and online learning resources

GOAL TWO: DIGITAL OPPORTUNITY FOR EVERY AMERICAN FAMILY AND COMMUNITY

To ensure that no family or community is left behind, we must:

1. Set the long-term goal of making home access to the Internet universal
2. Bring technology to every community -- urban, rural, and Native American -- through Community Technology Centers and high-speed networks
3. Give adults the skills they need to use information technology and compete for jobs in the IT sector
4. Motivate and inspire more people to appreciate the value of "getting connected"

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: "R. Wayne Sayer" <rws@sayer.com> ("R. Wayne Sayer" <rws@sayer.com> [UNKNOWN])

CREATION DATE/TIME: 8-MAR-2000 14:47:14.00

SUBJECT: Re: Applied Materials/Digital Divide

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Looking forward to seeing you at the Hay Adams 0830 hrs tomorrow. Tom is
also traveling with his support people for CHARITECH. They are Steve
Taylor of the Austin location and Estelle Pagnoux who is working on the
Portland OR event

At 03:15 PM 3/1/2000 -0500, you wrote:
>(See attached file: 0223dig-divide-frameSHORTA.doc)
>(See attached file: connect-com-f21.doc)
>
>8:30 a.m. on Thursday, Hay-Adams.
>
>Pls send the attached to Applied.
>
>Thanks!
>
>Attachment Converted: "C:\EUDORA\ATTACH\0223dig-divide-frameSHORTA.doc"
>
>Attachment Converted: "C:\EUDORA\ATTACH\connect-com-f21.doc"
>

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 8-MAR-2000 22:09:59.00

SUBJECT: Digital divide to digital opportunity

TO: Piper.cole@sun.com@inet (Piper.cole@sun.com@inet [UNKNOWN])
READ:UNKNOWN

TO: Chris.henkin@east.sun.com@inet (Chris.henkin@east.sun.com@inet [UNKNOWN])
READ:UNKNOWN

TEXT:
http://www.ehr.nsf.gov/ehr/due/programs/nsdl/

This is the URL for the NSF program on the digital library
for science and math

This is consistent with Scott's argument that

Just as important, however, is the next generation of
learners, the
ones now in grades K-12. How are they going to get
top-quality,
interactive, Web-based learning programs? Individual
schools can't
create them -- their budgets are stretched to the
limit as it is -- and
there are few market incentives for software
developers to tackle the
job.

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D9]ARMS22121547Y.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

========== ATTACHMENT 2 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D9]ARMS24121547Z.046 to ASCII.
The following is a HEX DUMP:

========== END ATTACHMENT 2 ==========

DRAFT

FROM DIGITAL DIVIDE TO DIGITAL OPPORTUNTY

Access to computers and the Internet and the ability to use this technology effectively are becoming increasingly important for full participation in America's economic, political and social life. While computer and Internet access has exploded during the Clinton-Gore Administration, America faces a "digital divide" -- a gap between those who have access to Information Age tools and the skills to use them and those who don't.

America has an important choice to make. We can allow unequal access to deepen divisions along the lines of race, income, education level, and geography, or we can use technology to help make the American dream a reality for more citizens. The Clinton-Gore Administration is committed to doing its part to ensure that all Americans benefit from opportunities created by information technology. But the government can not and should not do this alone. We need to build partnerships and develop a comprehensive approach to bringing digital opportunity to all Americans.

That is why we are asking you to build on actions you are already taking by agreeing to:

- Support the President's National Challenge to bridge the digital divide by agreeing to devote time and energy toward bringing digital opportunity to more Americans.
- Make new and innovative commitments to schools, families and local communities.
- Participate in the President's New Markets trip during the week of April 9th
- Support legislative initiatives designed to bridge the Digital Divide.

Your willingness to participate in these efforts will go a long way toward meeting two urgent and critical goals: to bring digital opportunity to every child in every school and to under-served families and communities.

GOAL ONE: 21ST CENTURY LEARNING TOOLS FOR EVERY CHILD IN EVERY SCHOOL

For children to succeed, they need to master basic skills at an early age. A critical element of this is the need for information and technological literacy. To help achieve these aims, we must focus on a comprehensive approach to integrating technology into teaching and learning while recognizing that -- as powerful as computers are -- they are no substitute for an inspiring teacher or a loving parent. Together, we must:

1. Connect every classroom and school to the Internet
2. Ensure that students have computer access, ideally at a ratio of 1 computer for every 4-5 students
3. Ensure that teachers are technologically literate and can integrate technology into the curriculum
4. Make available high quality educational software and resources

GOAL TWO: DIGITAL OPPORTUNITY FOR EVERY AMERICAN FAMILY AND COMMUNITY

To ensure that no family or community is left behind, we must:

1. Set the long-term goal of making access to the Internet in the home universal
2. Bring technology to every community -- urban and rural -- through Community Technology Centers and high-speed networks
3. Give adults and young adults the skills they need to use information technology and compete for jobs in the IT sector
4. Motivate and inspire more people to appreciate the value of "getting connected"

ELEMENTS OF A NATIONAL PARTNERSHIP

We can only reach our goals by developing strong partnerships between government, industry, and the rich mosaic of America's civil society -- educators, labor unions, librarians, civil rights leaders, faith-based organizations, foundations, and volunteers, and community-based organizations. We must also recognize that while competition, market forces, technological progress and new business models will help expand access by lowering the price of Internet access, computers, and "information appliances," access to technology is only one piece of the puzzle.

That is why we are urging that we agree to take a comprehensive approach: addressing not only Internet access and hardware, but the creation of quality content and applications, effective training, the development of information literacy, and intensive support and guidance from teachers and mentors. We must also make a special effort to find ways to motivate and inspire those who are not connected to see the value of participating in the Information Revolution.

By pledging to take on specific challenges in the overall effort -- beginning with some of the items outlined below -- you can make a tremendous difference in the lives of millions of American children and families.* We also encourage other ideas and commitments to help bring digital opportunity to all Americans in a sustained and thorough way.

GOAL 1: 21ST CENTURY LEARNING TOOLS FOR EVERY CHILD IN EVERY SCHOOL

Taking Action to Meet All Aspects of the Goal

- Make every school a model school by providing a comprehensive approach to education technology.
  - ✓ Examples of partnerships that have taken this comprehensive approach include PowerUP (with support from AOL, Case Foundation, Gateway, HP, Sun, and Americorps), the Joint Venture Silicon Valley "21st Century Education Initiative," and the "NextDay" project of NetDay.
- Match the Administration's Investment in the Technology Literacy Challenge Fund.
  - ✓ The Administration is proposing an increase from $425 million to $450 million to help states and local communities meet all four components of the goal.
- Work with local parents' groups to develop and complete school-wide surveys to determine which of the goal's four components are being met.
- Offer experts from universities and corporations to work full or part-time in schools – devoting their knowledge and energy to helping schools achieve all four parts of the goal.

Connecting Every Classroom and Library to the Internet

- Continue support for the E-rate
  - ✓ E-Rate has provided $3.65 billion in support Internet connections in schools and libraries over the last two years -- with the deepest discounts to the poorest schools that need it most.

* : Examples are for illustrative purposes only -- there are many other companies and non-profits that are working to bridge the digital divide.

- Continue volunteer efforts such as NetDay, TechCorps, and the "High Speed Education Connection" of the cable TV industry.

Providing Schools with the Computers they Require

- Donate computers to schools and libraries to bring greater access to technology to children and families

  ✓ The Administration is extending and expanding an enhanced tax deduction to allow companies to deduct more than the cost of their donation.

Training Teachers to Use Technology Effectively in the Classroom

- Develop partnerships to provide technology training to all new and existing teachers.

  ✓ The Administration has set a goal of training all new teachers to use technology, and has proposed $150 million to help meet this goal, which companies can support by partnering with schools of education.

  ✓ The CEO Forum has developed a detailed set of goals for how schools of education and states can work to ensure that all teachers are prepared to teach using technology.

  ✓ Several companies (e.g. Intel, Microsoft, AT&T) are also devoting significant resources to training existing teachers with summer academies, and follow-up support during the course of the school year.

Providing Compelling Content

- Create a Digital Library for Education to help students and teachers find quality content on the Internet.

  ✓ The Administration is proposing $41 million for an initiative to expand access to high-quality Internet-based educational resources, and to make it easier for parents, teachers and students to find compelling content by grade level and subject area.

  ✓ Several companies (e.g. Ameritech, MCI WorldCom) have partnered with government agencies to offer intensive training to teachers so they can develop content, and have provided grants to institutions to digitize special collections (such as the Library of Congress "American Memory" project).

Motivating Young People to Learn and Use Technology to its Fullest Potential.

- Motivate and train youth for careers in information technology

  ✓ Companies such as Cisco, 3Com and Novell have launched programs which help prepare students for high-paying jobs in the IT sector.

- Develop Public Service Announcements with celebrities

  ✓ Sports and entertainment stars can agree to do PSAs showing them using the computers and explaining why they are excited about the Internet, and why mastering these new tools is so important.

  ✓ Develop Public Service Announcements with celebrities to motivate young people and adults to use computers and explore the Internet -- including a "no fear, no shame" campaign for those adults who may be reluctant to admit that they don't know how to use technology.

- ✓ This kind of campaign would also be important for adults -- many of whom might be afraid to admit that they don't know how to use technology.

GOAL 2: DIGITAL OPPORTUNITY FOR EVERY AMERICAN FAMILY AND COMMUNITY

Expanding Home Access

- Provide computers and Internet services to your employees and their families.

  - ✓ Leading U.S. companies such as Ford and Delta have determined that providing their employees with computers and Internet access at reduced rates is critical to upgrading the skills of their employees.

  - ✓ The Administration has proposed $50 million for a pilot project to expand home access for low-income families. Companies can support local projects through free or discounted hardware, software, Internet access and training. Pilots are being supported by Computers For Youth, Microsoft, Bell Atlantic, IBM, and "Clickstart."

Creating more Community Technology Centers

- Donate all aspects of technology to help provide national coverage through Community Technology Centers (CTCs). CTCs provide children and adults a place to go where technology and assistance is available to them—including everything from conducting job searches to finding child care to providing children with structured after-school programs.

  - ✓ The Administration is proposing to expand its investment in CTCs from $32.5 million to $100 million- to create up to 1,000 new centers.

  - ✓ By extending and expanding an enhanced tax deduction, the Administration encourages companies to donate equipment, software, Internet access, support and instructors to expand the number of CTCs.

Providing Greater Training to Allow all Individuals to Fully Participate in the Digital Economy

- Offer training and internships to prepare more minorities and low-income workers for IT sector jobs

  - ✓ Information Technology Association of America is leading efforts to expand the number of minority internships in IT companies. Other companies and non-profits are getting positive results by providing IT training to people who are unemployed, on welfare, or holding minimum-wage jobs.

  - ✓ One California-based non-profit (OpNet) has been able to help people who were unemployed or making an average of $6 per hour compete successfully for jobs paying up to $45,000 year. Another consortium of Northern California companies has launched a project called "Welfare-to-Web" to provide the training people need to make the transition from welfare to high-tech jobs.

- Provide Basic Technology Training to Workers

  - ✓ Companies can take advantage of the President's tax credit and provide their employees with basic

computer training, workplace literacy or other basic education.

- Increase access to "information literacy" skills

  ✓ 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." Companies can donate the computers and Internet access that librarians need to provide people with these skills.

Providing Content and Applications that will Help Empower Low-Income Communities

- Develop content to help families access quality information and resources to meet their everyday needs

  ✓ Examples might include compelling courseware for adult literacy, adult basic education, English as a Second Language, or the skills needed to start a "micro-enterprise."

  ✓ Companies, state and local government agencies and non-profits can also collaborate to develop "portals" that would provide one-stop access to content particularly relevant to the needs of low-income families — such as child care, transportation, employment opportunities, and social services.

  ✓ The Administration is proposing to triple its investment in the Technology Opportunities Program (to $45 million), which has supported many innovative applications of information technology.

Bringing Advanced Technology to Isolated Rural Communities and to Indian Country

- Ensure that Native Americans participate in the New Economy. The Native American community can benefit from training for IT jobs, access to broadband networks that can help bring technology-related employment, e-commerce solutions for Native American small businesses, and the use of technology to preserve and share Native American culture.

  ✓ The Administration proposes $10 million for grants to tribal colleges for networking and access; course development; student assistance; and capacity building.

- Develop innovative business models and new technologies to deploy advanced services to rural America.

  ✓ The Administration has proposed several hundred million in loan guarantees to accelerate the deployment of broadband wireline and wireless networks to rural America.

  ✓ Companies are developing broadband technologies that can be cost-effectively deployed.

  ✓ Companies are exploring ways to bring fiber optic networks to rural states if users can pool their purchasing power.

Ensuring that Information Technologies and the Internet are Accessible to People with Disabilities

- Make the Web and information technology accessible for people with disabilities.

  ✓ The Administration and Internet companies are co-funding the "Web Accessibility Initiative" through the World Wide Web Consortium (W3C). Internet and e-commerce companies can move to adopt Web accessibility standards being developed by the W3C for Web content, browsers and authoring tools.

  ✓ Many telecommunications companies are working to enhance the accessibility of their products to meet the requirements of Section 255 of the Telecommunications Act of 1996.

- ✓ The Administration is proposing increased funding to improve the state-of-the-art of assistive technology, and to make it more affordable for people with disabilities.

DRAFT

Proposal for a "Connected Communities" Day

As part of his National Call to Action to bridge the digital divide and to create digital opportunity for more Americans, President Clinton will be leading a New Markets trip on the week of April 9th. This trip will be designed to mobilize public and private efforts to bring "digital opportunity" to every child in every school and to under-served families and communities.

The President is setting two broad national goals:

1. **21st Century Learning Tools for every child in every school**. This will require connecting every classroom and school to the Internet, ensuring that students have access to multimedia computers, ensuring that teachers are technologically literate and can integrate technology into the classroom, and expanding the availability of high-quality educational software and resources.

2. **"Digital opportunity" for every American family and community**. This will require setting the long-term goal of making access to the Internet at home universal, expanding the number of well-equipped and well-staffed Community Technology Centers, motivating and inspiring more people to appreciate the value of "getting connected," giving adults the skills they need to use IT and to compete for jobs in the IT sector, and developing the content and applications that will help empower low-income communities.

It is imperative that America maintain the excitement, enthusiasm and momentum on this issue that will be generated by the President's trip. One way to do this would be to call for a national "Connected Communities" Day in the fall of 2000. On Connected Communities Day -- cities and towns around the country would announce concrete steps to help create "digital opportunity" for all of their children, and to ensure that more families are benefiting from the Information Revolution. All sectors of our society -- companies, foundations, non-profit organizations, tech-savvy volunteers, educators, parents, government agencies, etc. would participate.

Steps leading up to Connected Communities Day

Local level:

Communities:

- Evaluate the current status of their efforts to create digital opportunity for children and families.

- Identify challenges and opportunities that the creative use of technology could help address (e.g. shortage of workers with IT skills, need for children to meet higher academic standards).

- Use the Internet and face-to-face meetings between stakeholders to set short and long-term goals for bridging the digital divide -- and the concrete actions that could help meet these goals.

National level

- Major companies, labor unions, non-profits, etc. would encourage their employees and members to get involved at the local level, or agree to work intensively with one or more communities.

- Building on activities such as the "Digital Divide Network" -- community leaders use the Internet to share ideas and promising practices.

On Connected Communities Day

Local level

- Announcement of specific commitments by different stakeholders.

- "Ribbon-cutting" for new or expanded activities (e.g. new community technology center, new home access pilot).

- Opportunities for community service (e.g. NetDay, CEOs visiting schools, etc.)

State/national level

- Announcements that have a state or national level impact (e.g. development of content accessible to all).

- Kick-off for PSA/celebrity campaign.

- Event that uses satellites and the Internet to highlight activities going on around the country.

- Volunteer photo-journalists with digital cameras capture interesting stories associated with "Connected Communities" Day.

After Connected Communities Day

- Commitment to do this again on an annual basis for the next 4 years.

- Annual report cards at the national and local level and description of commitments.

Examples of local commitments

Employers

- Provide paid time off for employees to volunteer in schools, community technology centers, home access pilots, tele-mentoring, and other "digital divide" activities.
- Provide access to computers and Internet for all employees.
- Provide technology training for employees.

High-tech companies

- Partner with one or more schools, libraries, community technology centers, and home access" pilot projects to help develop comprehensive solutions that address computers, Internet access, teacher training, mentoring, and educational software.
- Work with school-to-work programs, welfare-to-work initiatives, community colleges, etc. to increase the number of people with marketable IT skills.
- Partner with local schools of education to ensure that all new teachers can use technology effectively.
- Help non-profits that serve low-income communities upgrade their capacity to use technology.

Unions

- Help wire schools, libraries and community technology centers.
- Provide more apprenticeship opportunities in technical fields.
- Make access to technology, technological skills, and distance learning a priority area for labor-management cooperation.

Local school districts, parent-teacher organizations

- Develop and complete school-wide surveys to determine which of the 4 goals (Internet connections, computers, teacher training, educational software and content) are being met.
- Provide teachers with time off to learn how to integrate technology into the curriculum.

Non-profit organizations

- Create a "portal" for local information and services that will help empower low-income families (e.g. child care, transportation, training, job opportunities, local health care, social services, technical assistance for micro-enterprises).
- Work with the private sector, foundations, and government to expand or create new initiatives aimed at bridging the digital divide.
- Conduct outreach to under-served communities to ensure that initiatives respond to real needs -- using both meetings and community networks.
- Expand the capacity of under-served communities to develop their own uses for information technology.

Foundations

- Provide funding for local planning and consensus-building activities.
- Provide funding for follow-on "digital divide" activities that have been identified as priorities.

Celebrities/ sports stars

- Participate in PSAs and local media campaigns on the value of getting connected and mastering the new Information Age tools.

Governors and Mayors

- Provide state-wide or local leadership.
- Make technological literacy a requirement for teacher certification at the state level.
- Identify critical services that can be delivered electronically or enhanced using information technology (example: using geospatial information systems to reduce childhood lead poisoning, use of distance learning for adult basic education, etc.)
- Match the federal government's investment in programs such as the Technology Literacy Challenge Fund.
- Identify sources of funding for "digital opportunity" initiatives (e.g. discretionary money under Workforce Investment Act for IT skills training, state and local budgets).

Libraries and local historical and cultural organizations

- Expand "information literacy" programs. People with information literacy skills are "able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively."

- Develop a "digital library" of information about the community and its history that can be used both locally and nationally.

Universities/Community Colleges

- Ensure that schools of education have an adequate technological infrastructure.

- Encourage multidisciplinary research on digital divide/digital opportunity issues through establishment of research centers.

- Encourage faculty to develop high-quality Internet-based content that can be included in a "Digital Library for Education" through incentives, awards or other forms of recognition.

- Provide objective evaluation of community-based efforts to close the digital divide.

Operators of local Web sites

- Comply with the accessibility standards of the World Wide Web Consortium (Web Accessibility Initiative) to ensure that people with disabilities can access local information and services.

Restaurants and shopping malls

- Establish Internet kiosks in popular commercial establishments.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Maura Colleton <Maura.Colleton@wcom.com> (Maura Colleton <Maura.Colleton@wcom.com> [UNKNOWN])

CREATION DATE/TIME: 8-MAR-2000 16:22:26.00

SUBJECT: RE: Digital divide

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Our MMDS trial announcement:

****

MCI WorldCom Launches High Speed Wireless Trials

MCI WorldCom has begun testing high-speed wireless service in three markets to determine how the carrier will deliver broadband connectivity in areas traditionally underserved by competing technologies such as broadband cable or DSL.

The trials--in Jackson, Miss.; Baton Rouge, La.; and Memphis, Tenn. --kick off the carrier's fixed wireless strategy. MCI WorldCom will offer high-speed access in markets "less likely to be touched by cable broadband monopolies and the Mega-Bell local phone companies," the carrier said.

MCI WorldCom said it is using multichannel multipoint distribution service(MMDS) technology to deliver broadband services. MMDS is capable of beaming data over a 35-mile radius. The carrier said it plans to roll out a commercial version of the service after FCC licensing approval has been granted. That is expected later this year.

MCI WorldCom is offering trial participants Internet access at rates of up to 310 Kbps; the carrier said it expects to offer fixed wireless connectivity to customers in more than 100 cities by late 2001. The cities will be ones served by both MCI WorldCom and Sprint- the carrier MCI WorldCom expects to acquire later this year.
-- Chuck Moozakis

-----Original Message-----
From: Thomas_A._Kalil@opd.eop.gov [mailto:Thomas_A._Kalil@opd.eop.gov]
Sent: Wednesday, March 08, 2000 2:50 PM
To: Maura.colleton@wcom.com
Subject: Digital divide

(See attached file: 0223dig-divide-frameSHORTA.doc)(See attached file: connect-com-f21.doc)

These are some examples of what companies and non-profits are doing.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 8-MAR-2000 09:13:25.00

SUBJECT: Kalil speech on digital divide to universities

TO: Joshua S. Weinstein (CN=Joshua S. Weinstein/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
Need 60 copies by noon
---------- Forwarded by Thomas A. Kalil/OPD/EOP on 03/08/2000
09:11 AM ----------

Thomas A. Kalil
03/07/2000 08:23:23 PM
Record Type: Record

To: Jamie H. Ginott/OPD/EOP@EOP
cc: Gigi E. Georges/OPD/EOP@EOP, Natasha F. Bilimoria/OPD/EOP@EOP
Subject: Kalil speech on digital divide to universities

Gene might be interested in this - I'm giving this
on Wednesday to 60 university reps -- will also
work on getting them to support the call for
action.

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D6]ARMS27319437E.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

"From Digital Divide to Digital Opportunity: The Critical Role of Higher Education"
Prepared for National Association of State Universities and Land-Grant Colleges, March 8, 2000
Thomas Kalil, White House National Economic Council

From Digital Divide to Digital Opportunity

During the Clinton-Gore Administration, access to computers and the Internet has exploded. In 1993, there were 50 Web-sites – today, there are over 10 million. Access to the Internet and information technology – and the skills needed to use these new tools – are becoming essential to full participation in America's economic, social and political life. People use the Internet to exchange e-mail with their children's teachers, find a job, upgrade their skills, make better informed decisions about their healthcare needs, and get information about candidates for local, state and national elections.

As President Clinton said in his State of the Union – America has an important choice to make. We could allow unequal access to technology to reinforce the existing divisions that exist in American society along the lines of income, race, education level, geography and disability, or we could use technology to help create opportunity for all Americans.

This year, the Administration has proposed major new initiatives to help bridge the digital divide in our schools, families and communities. These initiatives build on our existing investments in educational technology – such as the $2.25 billion e-rate program, and the $450 million Technology Literacy Challenge Fund. These new budget proposals include:

- $2 billion in tax incentives to encourage companies to donate computers to schools, libraries, and community technology centers, and to upgrade the technology skills of their workers;
- $150 million to help train all new teachers to use technology;
- $100 million to establish 1,000 Community Technology Centers in under-served urban and rural communities;
- $45 million to promote innovative applications of IT for under-served communities;
- $50 million in a public-private partnership to extend home Internet access to low-income families;
- $25 million to accelerate the deployment of broadband networks in under-served urban and rural areas;
- $10 million to help prepare for more Native Americans for careers in IT and other technical fields.

Access to information technology and IT skills is certainly not a panacea for all of the economic and social challenges that America faces. But it can make a big difference:

- A homeless mother of 3 that received IT training at a San Francisco-based non-profit called OpNet was recently able to get a job paying $55,000. The wages of people who completed the program has increased on average from $6/hr. to $14/hr.

- Children in remote rural communities in Alaska have been able to take AP courses using distance learning.

- Native American small businesses are able to sell their products on the Web, and even get a few sales from the President of the United States.

- Inner-city school children in Pittsburgh who were reading almost 3 years below grade level were able to make 2 years progress in 8 months -- using an automated Reading Tutor that takes advantage of speech recognition technology.

What role can higher education play?

President Clinton believes that we are only going to make progress in creating digital opportunity for more Americans if we create partnerships between government, industry, academia, and non-profit organizations. During the week of April 9th, he will be leading a trip to highlight new and expanded efforts to bring digital opportunity to under-served children, families and communities.

I think that higher education has a very important role to play, and I'd like to suggest some concrete steps that you could take. I hope that these suggestions will provoke you to come up with some even better ideas.

(1) **Support research and education that can help create "digital opportunity"**

It is clear that research and education in a number of areas – could help increase our understanding of the digital divide, and help to close it. Below are just a few examples of potential research topics – in fields such as electrical engineering, computer science, the learning sciences, and the social sciences. Some of these topics could be supported under the Administration's proposed increases for information technology research -- including the "Ethical, Legal, and Social Implications" of the Information Revolution:

- What advances in wireless and wireline technologies could accelerate the deployment of broadband networks in rural communities? How could some of the limitations of today's broadband technologies for rural America (e.g. the distance limitations of Digital Subscriber Line technology) be overcome?

- What factors influence the decision of low-income families to purchase computers and the Internet at home? What would make the Internet a "must have" for low-income families, just as TV and cable is today?

- What economic benefits would flow from having Internet access approach the same level of penetration as the telephone and television? How much could governments at all levels save

from the ability to move more rapidly to the electronic delivery of government services and information? Would ubiquity give the U.S. a source of competitive advantage — just as being the first country to have the Internet at all gave American companies a "first mover" advantage?

- What applications of information technology would help empower low-income individuals and communities? How can the government help catalyze the development of a market for IT applications, in those instances in which the social rate of return significantly exceeds the private rate of return?

- What uses of educational technology have a demonstrable impact on student achievement? How can advances in IT (e.g. modeling and simulation, AI, digital libraries, multimedia, tools for collaboration and authoring) be used to support teaching and learning? The Administration has proposed a $32 million increase in the Department of Education budget to support this kind of research.

- What advances in IT will allow people with disabilities to lead more independent lives and increase their participation in the workforce?

- What are the range of public policies and public-private partnerships that should be considered by the United States to help close the digital divide and create digital opportunity for more Americans?

(2) Ensure that new teachers entering the workforce are prepared to effectively use technology in the classroom and to support their own life-long learning

Study after study has concluded that technology will not improve student performance unless teachers can integrate technology into the curriculum. Currently, most new K-12 teachers are not entering the workforce with the ability to effectively use technology in the classroom. Given that the United States needs to hire 2.2 million new teachers over the next decade, preparing all new teachers to use technology is an important and achievable national goal. Recognizing this, President Clinton has proposed $150 million for the Department of Education's "Preparing Tomorrow's Teachers to Use Technology" program.

A recent report by the CEO Forum on Educational Technology concluded that teacher education institutions generally receive less attention than professional programs in law, business, medicine and engineering, and have a less affluent alumni base – making it more difficult to attract large gifts. University presidents could make upgrading the technology infrastructure of schools of education a priority. Universities and schools of education could also commit to evaluating their current efforts using the CEO Forum's School Technology and Readiness (StaR) Chart – and to meet the goals identified by the CEO Forum.

(3) **Encourage faculty, employees and students to volunteer to help close the digital divide**

Universities could encourage faculty and employees to volunteer or to provide technical assistance to K-12 schools, community technology centers, and non-profit organizations seeking

to close the digital divide.

(4) **Help create a Digital Library for Education**

Technology in the classroom won't make a difference without high-quality educational content and applications. The Administration has proposed the creation of a "Digital Library for Education" – to increase the availability of high-quality Web-based K-16 educational resources, and to make it easier for students and teachers to find these materials. The President's FY2001 budget includes $41 million – with support for both math and science (National Science Foundation) and for America's historic and cultural heritage (National Park Service, Smithsonian, Institute for Museum and Library Services). NSF has already issued a solicitation for $13 million with FY2000 funds.

The higher education community could support the Digital Library for Education in a variety of ways:

- Disciplinary organizations (e.g. science and engineering societies, scholarly organizations) could provide prizes to educators and professors that provide high-quality resources to digital libraries. They could also try to define what should be in a digital library that comprehensively covered a particular discipline.

- Universities could also provide support and incentives for professors to contribute – such as including these contributions in tenure and promotion decisions, or giving faculty the training they need to develop Web-based educational resources.

Some organizations have also received support from private sector companies to develop, organize and evaluate Web-based educational resources. An example is MCI-Worldcom's Marco Polo project, which involves partnerships with the National Council on Economic Education, the National Geographic Society, National Endowment for the Humanities, National Council of Teachers of Mathematics, American Association for the Advancement of Science, and the Kennedy Center.

(5) **Help expand the number of minorities in IT professions**

Currently, African-Americans and Hispanics are significantly under-represented in IT professions. For example, African-Americans account for 5% of all computer programmers but 10% of the general workforce, while Hispanics account for 4% of programmers and 9% of the workforce. More needs to be done to encourage minorities to pursue careers in IT.

(5) **Expand distance learning opportunities for low-income workers**

Universities that are developing distance learning programs, especially for adult learners, could ensure that there offerings meet the needs of low-income workers, and consider providing discounts on tuition for low-income adults seeking to upgrade their skills or make the transition from welfare-to-work.

(6) **Serve as a "think tank" and resource for local efforts to close the digital divide**

Universities could serve as a "think tank" for local communities that are seeking to develop a strategy to bridge the digital divide. Faculty members could help local communities evaluate their current efforts, define possible short and long-term goals, and identify "best practices" for meeting these goals.

(7) **Allow campus facilities to be used for local efforts to close the digital divide**

Universities could allow facilities (e.g. computer labs) to be used for local efforts to close the digital divide – such as training of local teachers.

***

We are fortunate to be living in an extraordinary time. The United States is enjoying an unprecedented period of economic prosperity -- and new information technologies are changing the way we work, learn, play and communicate with each other. But I think it's still an open question whether information technology could be used to usher in an era of shared prosperity and more opportunities for all Americans -- or whether it will reinforce the existing divisions within American society. I think that the higher education community has a critical role to play, and I want to challenge you to work with the Administration to define what that role could be.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Patrick M. Dorton (CN=Patrick M. Dorton/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 8-MAR-2000 13:04:07.00

SUBJECT: Do you have an intern? Let's ask an intern to take the POTUS Digital Divide Event speech and turn it into a League of Women Voters Essay

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
---------- Forwarded by Patrick M. Dorton/OPD/EOP on 03/08/2000 01:03 PM ----------

DORINDA A. SALCIDO
03/08/2000 12:54:05 PM
Record Type: Record

To: Thomas A. Kalil/OPD/EOP@EOP
cc: Patrick M. Dorton/OPD/EOP@EOP, Victoria L. Valentine/WHO/EOP@EOP, Jennifer M. Palmieri/WHO/EOP@EOP
Subject: League of Women Voters Essay

I have talked to Jen and we want to see if you can do this essay? I have the request letter from The League of Women Voters that I can send your way which has the specifics,

but briefly:

The League of Women Voters would like to ask President Clinton to sound off on why he believes we need to bridge the digital divide and, if he would like to, how to bridge the divide. The essay would be 500 words and is due March 21.

Call me to discuss @ 65771 further.
---------- Forwarded by Dorinda A. Salcido/WHO/EOP on 03/07/2000 05:54 PM ----------

Victoria L. Valentine
03/07/2000 12:27:17 PM
Record Type: Record

To: Dorinda A. Salcido/WHO/EOP@EOP
cc: Jennifer M. Palmieri/WHO/EOP@EOP
Subject: Please let me know if we want to do the League of Women

Voters.....

....essay from the President on the digital divide?

Thanks

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Michael M. Daum (CN=Michael M. Daum/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 8-MAR-2000 18:17:05.00

SUBJECT: Digital Divide - Access for those with disabilities

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
Sorry it took longer than I thought. There are a few small loose ends and I'll revise if I have to. I am reasonably confident on the numbers.

Dave Radz still couldn't unravel the NSF base funding for 2000. Initially, NSF told him it was $0, then changed it to $12 + million when then broadened the definition to include all human/computer interface work and a portion of the robotics effort. He is not really sure. My conversations identified at least a $1.6 million base for FY 2000 under the Universal Access initiative. I spoke with him and we agreed to go with the $1.6 million

I still don't have the details for the Access Board, but I'm guessing it is couple of hundred k for FY 2001. In FY 2000 they have $200 k to support Section 508 activities. They are currently not included in the memo.

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D43]ARMS293734473.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

March 8, 2000

MEMORANDUM FOR TOM KALIL

FROM: Michael Daum

SUBJECT: Administration Activities to Increase Access to Information Technology for Those With Disabilities

The President's proposed FY 2001 budget for increasing access to information technology for those with disabilities is $67.5 million, an increase of 45 percent from FY 2000.

Department of Education National Institute on Disability and Rehabilitation Research (NIDRR)
FY 2000 enacted budget: $39.0 million
FY 2001 budget request: $54.5 million

In FY 2000, NIDRR received $34 million to fund State assistive technology projects that reduce barriers to the availability, acquisition, and use of assistive technology devices and services for individuals with disabilities. These projects support capacity building and advocacy activities designed to assist the States in maintaining permanent comprehensive statewide programs of technology-related assistance. The President's FY 2001 budget calls for a $7 million (21 percent) increase. The additional funds would allow States to start or expand loan programs, provide training to service providers in the use of assistive technology, and establish regional demonstration centers where people with disabilities can use the technology.

NIDRR's FY 2000 budget includes $5.0 million for research, development, diffusion and technical assistance activities that will increase access to information technology for those with disabilities. Activities include: (1) Establishing a demonstration center/testing laboratory to offer a forum for industry to display prototypes and showcase cutting edge information technologies, to gather consumer feedback on new products, and use as a beta test site; (2) Develop, evaluate, implement and disseminate training materials, curricula, technical assistance modules for a broad array of constituents; (3) Create a Rehabilitation Engineering Research Center (RERC) on Accessible Information Technology Design Research that will work in conjunction with the existing U. of Wisconsin RERC that focuses on information technology accessibility and usability (The new Center will be charged with basic and applied IT research, application, and commercialization); (4) Continued Support for World Wide Web Consortium's Web Accessibility Initiative.

The FY 2001 Budget requests $13.5 million to enable NIDRR to undertake a comprehensive set of technology initiatives. This includes $5 million for an Educational Technology Initiative to provide technical assistance and training to elementary and secondary schools regarding accessible information technology, statutory requirements and technology standards, and resources available.

The remaining $8.5 million will support a Technology for Independence initiative -- $3.1 million for a multi-pronged Employment initiative to carry out research, training, and technical assistance to enhance the ability of individuals with disabilities to access and use information and

communication technology to increase employment opportunities, including self-employment; and $5.4 million for a Community Independence initiative to look at how information and assistive technology can be used to enhance community integration and participation by individuals with disabilities.

General Services Administration (GSA)
FY 2000 enacted budget: $3.5 million
FY 2001 budget request:

GSA's focus in FY 2000 is to assist Federal agencies implement the standards developed as a result of the 1998 amendments to Section 508 of the Rehabilitation Act. GSA is working with several Federal agencies, testing laboratories, and the IT industry to develop a model for testing, certifying, and validating IT products ($1.0 million). An additional $2.5 million is for GSA to provide technical assistance to agencies under the Rapid Service Valuation and Preparation (RSVP) Access program. GSA is using these funds to promote awareness of the Section 508 requirements both in the Federal government (through the CIO Council) and industry. GSA is also developing training modules for Federal employees capable of being delivered in different format and over different media (classroom, video, Internet…). In cooperation with other stakeholders, GSA would establish a comprehensive Section 508 Web site. In addition, GSA is working with agencies to establish teams in each agency that will be responsible for meeting Section 508 requirements. They will also assemble a team of experts who will be available to agencies with particularly difficult needs, work to identify "Centers of Expertise" within the government that can serve as resources to other agencies, and establish a Section 508 help desk. The FY 2001 Budget requests $2.5 million for the RSVP program and $1 million in start-up funding to a private sector organization for a testing laboratory on accessibility along the lines of the Underwriters' Laboratory.

Department of Defense Computer/Electronic Accommodation Program
FY 2000 enacted budget: $2.6 million
FY 2001 budget request: $2.6 million + $2.0 million in a separate initiative

The Computer/Electronic Accommodation Program (CAP) provides assistive technology and accommodations to ensure people with disabilities have equal access to the information environment and opportunities in the Department of Defense (DOD). CAP provides assistive technology so individuals with disabilities in various DOD Components can access the telecommunications and computer/electronic information at no cost to the organization. CAP has expert staff to assist in identifying and purchasing appropriate technical enhancements to ensure that DOD employees, programs, and facilities are accessible to individuals with disabilities, as required by Federal Public laws. Since its inception in 1990, CAP has filed over 17,000 requests for accommodation throughout DOD. The CAP Technology Evaluation Center (CAPTAC) in the Pentagon is a facility dedicated to the evaluation of assistive technology. CAPTEC contains several computer workstations equipped with a wide variety of equipment designed to accommodate persons with disabilities.

The President's FY 2000 budget proposed authorizing language and a budget increase of $2 million to expand the services CAP provides to other agencies. Congress did not approve the request. The Administration has again proposed expanding CAP in its FY 2001 budget.

National Science Foundation (NSF)

FY 2000 enacted budget: $1.6 million
FY 2001 budget request: $5 million

FY 2000 is the second year of NSF's Universal Access (UA) initiative. A primary objective of the UA initiative is to empower people with disabilities so that they are able to participate as first class citizens in the emerging information society. The word "access" implies the ability to find, manipulate and use information in an efficient and comprehensive manner. NSF will fund university-based research proposals focusing on (human-computer) interface technology that will lead to increased access.

The President's FY 2001 budget proposes $5.0 million for assistive technologies as part of a broader information technology initiative. The $5.0 million will fund research, demonstrations and technical assistance on ways to make technology more accessible. These assistive technologies will enable a greater spectrum of the citizenry - the elderly, disabled, and those with less experience with computer systems to use and benefit from IT innovations in computing and communications. Research efforts that would be supported include the Universal Access initiative, new methods for voice synthesis and recognition, multi-media information interfaces, haptic (force-feedback) interfaces, robotics, advanced networking, and tele-collaboration with virtual reality.

By Agency	Program	FY 2000	FY 2001
DOD	CAP	$2.6 million	$2.6 million
	Expand CAP to other agencies	--------	$2.0 million
GSA	RSVP	$2.5 million	$2.5 million
	Testing	$1.0 million	$1.0 million
DoE/NIDRR	Grants to States	$34 million	$41 million
	R&D, diffusion, assistance	$5.0 million	$13.5 million
NSF	R&D	$1.6 million	$5.0 million
	Total	**$46.7 million**	**$67.5 million (+45 percent)**

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 8-MAR-2000 09:14:47.00

SUBJECT: digital divide call to action

TO: Joshua S. Weinstein (CN=Joshua S. Weinstein/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
Need 60 copies -- but just of the 2nd page.

Make a copy of this document without the
cover sheet so that it does not have a
page number.

---------- Forwarded by Thomas A. Kalil/OPD/EOP on 03/08/2000
09:13 AM ----------

Thomas A. Kalil
03/07/2000 05:59:08 PM
Record Type: Record

To: Camilla_nelson@hp.com@inet
cc:
Subject: digital divide call to action

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D56]ARMS23229437C.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

A NATIONAL CALL TO ACTION FOR DIGITAL OPPORTUNITY

YES, WE SUPPORT THE CALL TO ACTION AND ARE COMMITED TO TAKING CONCRETE STEPS TOWARD MEETING THE TWO NATIONAL GOALS FOR DIGITAL OPPORUTNITY.

COMPANY/ORGANIZATION NAME:

_____

PRESIDENT/CEO: _____

ADDRESS: _____

_____

_____

PHONE: _____ **FAX:** _____

E-MAIL: _____

PLEASE RETURN THIS FORM BY MARCH 10th TO:

xxxxxxxxxxxxxxxx

FROM DIGITAL DIVIDE TO DIGITAL OPPORTUNTY: A NATIONAL CALL TO ACTION

Access to information technology and the Internet and the ability to use this technology effectively are becoming increasingly important to full participation in America's economic, political and social life. While computer and Internet access has exploded in recent years, America faces a "digital divide" -- a gap between those who have access to Information Age tools and the skills to use them and those who don't.

America has an important choice to make. We can allow unequal access to deepen the existing divisions along the lines of race, income, education level, geography, and disability -- or we can use technology as a powerful tool to help make the American dream a reality for more citizens. To help create digital opportunity for more Americans, we must create strong partnerships between government, industry, and the rich mosaic of America's civil society -- including educators, labor unions, librarians, civil rights leaders, faith-based organizations, foundations, volunteers, and community-based organizations.

As companies, non-profit organizations, and individuals, we are committed to taking concrete steps to meet two critical national goals: (1) Ensuring Access To 21st Century Learning Tools For Every Child In Every School; and (2) Expanding Digital Opportunity For Every American Family And Community.

GOAL ONE: 21ST CENTURY LEARNING TOOLS FOR EVERY CHILD IN EVERY SCHOOL

For children to succeed, they need to master basic skills at an early age. A critical element of this is the need for information and technological literacy. To help achieve these aims, we must focus on a comprehensive approach to integrating technology into teaching and learning while recognizing that -- as powerful as technology is -- it is no substitute for an inspiring teacher or a loving parent. Together, we must:

1. Connect every classroom to the Internet
2. Ensure that all students have modern multi-media computer access, ideally at a ratio of 1 computer for every 4-5 students
3. Ensure that teachers are technologically literate and can integrate technology into the curriculum
4. Make available high quality educational software and online learning resources

GOAL TWO: DIGITAL OPPORTUNITY FOR EVERY AMERICAN FAMILY AND COMMUNITY

To ensure that no family or community is left behind, we must:

1. Set the long-term goal of making home access to the Internet universal
2. Bring technology to every community -- urban, rural, and Native American -- through Community Technology Centers and high-speed networks
3. Give adults the skills they need to use information technology and compete for jobs in the IT sector
4. Motivate and inspire more people to appreciate the value of "getting connected"

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Maura Colleton <Maura.Colleton@wcom.com> (Maura Colleton <Maura.Colleton@wcom.com> [UNKNOWN])

CREATION DATE/TIME: 8-MAR-2000 16:22:27.00

SUBJECT: RE: Digital divide

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Thanks, Tom.

I noticed that sports teams are on here. Have you spoken with the NFL? If not, my sister's the head of community affairs there, and I'd be happy to put you in touch with her. They're done some good work with youth technology centers in the inner city.

-----Original Message-----
From: Thomas_A._Kalil@opd.eop.gov [mailto:Thomas_A._Kalil@opd.eop.gov]
Sent: Wednesday, March 08, 2000 2:50 PM
To: Maura.colleton@wcom.com
Subject: Digital divide

(See attached file: 0223dig-divide-frameSHORTA.doc)(See attached file: connect-com-f21.doc)

These are some examples of what companies and non-profits are doing.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Andrea Kane (CN=Andrea Kane/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 8-MAR-2000 09:17:03.00

SUBJECT: re: New Markets/Digital divide

TO: esummy@os.dhhs.gov (esummy@os.dhhs.gov [UNKNOWN])
READ:UNKNOWN

CC: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

CC: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
great - as always, quick response is needed. For now, should NEC add your name to their New Markets planning distribution list?

Elizabeth Summy <esummy@os.dhhs.gov>
03/08/2000 09:11:19 AM
Please respond to esummy@os.dhhs.gov
Record Type: Record

To: Andrea Kane/OPD/EOP
cc:
Subject: re: New Markets/Digital divide

I'll get this around to a few folks and let you know.
- - - - - - - - - - - - - - Original Message - - - - - - - - - - - - - -
As you probably know, NEC has begun an intensive interagency planning process for the President's next New Markets Tour, which will focus on the digital divide. It doesn't appear that HHS is participating, though I'm double checking w/ NEC to see who they've included. It seems like there are a number of ways in which HHS could participate in and contribute to this important issue given its focus on creating opportunities for people and places that have been left behind. It's not exactly clear to me which part(s) of HHS would be most appropriate, but I'm sure you'd have ideas. Tom Kalil from NEC has drafted the attached concept paper on how technology could be used to enhance delivery of 'socal services' (very broadly defined) for low income people. We'd be very interested in having the Dept take a look and identify a few key ideas/issues HHS would be interested in promoting or following up on as part of the Tour and the ongoing digital divide initiative. I'd be glad to discuss this further by phone, or set up

an opportunity for you and a few others from HHS to chat with NEC and me about this.
---------- Forwarded by Andrea Kane/OPD/EOP on 03/07/2000 05:27 PM ----------

Thomas A. Kalil
03/06/2000 06:03:21 PM

Record Type: Record

To: Andrea Kane/OPD/EOP@EOP

cc:
Subject: Applications of IT

(See attached file: socialsoftware.doc)

- - - - - - - - - - - - End of Original Message - - - - - - - - - - - -

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Anna Richter (CN=Anna Richter/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 18:26:54.00

SUBJECT: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm

TO: Andrea Kane (CN=Andrea Kane/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
Have you been attending the digital divide meetings?
---------- Forwarded by Anna Richter/OPD/EOP on 03/09/2000
06:26 PM ----------

Eric P. Liu
03/09/2000 06:21:03 PM
Record Type: Record

To: Anna Richter/OPD/EOP@EOP
cc:
Subject: THIS IS A TIME CHANGE: Digital Divide interagency meeting
- Friday 12 pm

---------- Forwarded by Eric P. Liu/OPD/EOP on 03/09/2000
06:21 PM ----------

Natasha F. Bilimoria
03/09/2000 10:52:53 AM
Record Type: Record

To: See the distribution list at the bottom of this message
cc: Rachael F. Goldfarb/OPD/EOP@EOP, Gigi E. Georges/OPD/EOP@EOP,
Thomas A. Kalil/OPD/EOP@EOP
bcc:
Subject: THIS IS A TIME CHANGE: Digital Divide interagency meeting
- Friday 12 pm

Just so there is no confusion, at our last meeting we had said this
meeting would be at 11am--this has been rescheduled for 12pm on Friday
(tomorrow). As the email below states, you should foward your clearance
information to Rachael Goldfarb. Couple of issues:

Call to Action: We apologize for not sending this out as of yet. We hope
to have it for you tomorrow at our meeting.

Commitment/Deliverable Ideas: Please email me your deliverable and site ideas by 12pm tomorrow and also bring a hard copy to the meeting.

Thanks again--we appreciate all of your assistance (and patience).

Rachael F. Goldfarb
03/09/2000 10:11:35 AM
Record Type: Record

To: See the distribution list at the bottom of this message
cc:
Subject: Digital Divide interagency meeting - Friday 12 pm

There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231 Old Executive Office Building. Please confirm your attendance and include full name, dob and social security number. Thanks.

Message Sent
To:
harris-seth@dol.gov
klevy@ntia.doc.gov
Andrea Kane/OPD/EOP@EOP
esummy@os.dhhs.gov
marianne.smith@ost.dot.gov @ inet
albert.eisenberg@ost.dot.gov @ inet
Linda.Darr@ost.dot.gov @ inet
Leon.Simpson@ost.dot.gov @ inet
norma.krayem@ost.dot.gov @ inet
loretta.stevenson@ost.dot.gov
David W. Beier/OVP@OVP
Jim Kohlenberger/OVP@OVP
Andrew F. Schneider/OVP@OVP
Eric P. Liu/OPD/EOP@EOP
Mary L. Smith/OPD/EOP@EOP
Andrew J. Mayock/WHO/EOP@EOP
Marjorie Tarmey/WHO/EOP@EOP
Lynn G. Cutler/WHO/EOP@EOP
Rachel A. Redington/WHO/EOP@EOP
Maria E. Soto/WHO/EOP@EOP
Jennifer M. Palmieri/WHO/EOP@EOP
Stephanie A. Cutter/WHO/EOP@EOP
Ruby Shamir/OPD/EOP@EOP
Michael J. Brien/CEA/EOP@EOP
Douglas V. Almond/CEA/EOP@EOP
Lisa M. Kountoupes/WHO/EOP@EOP
Joshua J. Ackil/WHO/EOP@EOP
Barbara_Bostick-Hunt@HUD.GOV @ inet

Ariel_M._Zwang@HUD.GOV @ inet
cliff.kellogg@do.treas.gov @ inet
LuechtW@cdfi.treas.gov
heyman-stephen@dol.gov
harris-seth@dol.gov
grohde@doc.gov @ inet
mwarren@doc.gov @ inet
theodore.wartell@sba.gov @ inet
betsy.kim@sba.gov @ inet
Jacquie_M._Lawing@hud.gov @ inet
mmatthew@ocdx.usda.gov @ inet
prichman@ocdx.usda.gov @ inet
Camclean@rus.usda.gov @ inet
Ahaynes@usda.gov @ inet
clyde.williams@usda.gov @ inet
Jgomperts@cns.gov @ inet
lroberts@ed.gov @ inet
Mark D. Magana/WHO/EOP@EOP
Christine_P._Pilosi@hud.gov
Phyllis A. Love/OVP@OVP
Aram H. Kailian/OVP@OVP
Irma L. Martinez/WHO/EOP@EOP
Kris M Balderston/WHO/EOP@EOP
Elizabeth B. Echols/OVP@OVP
ldaly@doc.gov
carole_wacey@ed.gov
julie_kaminkow@ed.gov
Andrea Kane/OPD/EOP@EOP
Joel K. Wiginton/WHO/EOP@EOP
glynis.long@sba.gov
deborah_vincent@hud.gov
jan-m.williams@usda.gov

Message Sent
To:_____
harris-seth@dol.gov
klevy@ntia.doc.gov
andrea kane/opd/eop@eop
esummy@os.dhhs.gov
marianne.smith@ost.dot.gov @ inet
albert.eisenberg@ost.dot.gov @ inet
linda.darr@ost.dot.gov @ inet
leon.simpson@ost.dot.gov @ inet
norma.krayem@ost.dot.gov @ inet
loretta.stevenson@ost.dot.gov
david w. beier/ovp@ovp
jim kohlenberger/ovp@ovp
andrew f. schneider/ovp@ovp
eric p. liu/opd/eop@eop
mary l. smith/opd/eop@eop
andrew j. mayock/who/eop@eop

marjorie tarmey/who/eop@eop
lynn g. cutler/who/eop@eop
rachel a. redington/who/eop@eop
maria e. soto/who/eop@eop
jennifer m. palmieri/who/eop@eop
stephanie a. cutter/who/eop@eop
ruby shamir/opd/eop@eop
michael j. brien/cea/eop@eop
douglas v. almond/cea/eop@eop
lisa m. kountoupes/who/eop@eop
joshua j. ackil/who/eop@eop
barbara_bostick-hunt@hud.gov @ inet
ariel_m._zwang@hud.gov @ inet
cliff.kellogg@do.treas.gov @ inet
luechtw@cdfi.treas.gov
heyman-stephen@dol.gov
grohde@doc.gov @ inet
mwarren@doc.gov @ inet
theodore.wartell@sba.gov @ inet
betsy.kim@sba.gov @ inet
jacquie_m._lawing@hud.gov @ inet
mmatthew@ocdx.usda.gov @ inet
prichman@ocdx.usda.gov @ inet
camclean@rus.usda.gov @ inet
ahaynes@usda.gov @ inet
clyde.williams@usda.gov @ inet
jgomperts@cns.gov @ inet
lroberts@ed.gov @ inet
mark d. magana/who/eop@eop
christine_p._pilosi@hud.gov
phyllis a. love/ovp@ovp
aram h. kailian/ovp@ovp
irma l. martinez/who/eop@eop
kris m balderston/who/eop@eop
elizabeth b. echols/ovp@ovp
ldaly@doc.gov
carole_wacey@ed.gov
julie_kaminkow@ed.gov
joel k. wiginton/who/eop@eop
glynis.long@sba.gov
deborah_vincent@hud.gov
jan-m.williams@usda.gov

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Andrea Kane (CN=Andrea Kane/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 18:33:48.00

SUBJECT: Re: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm

TO: Anna Richter (CN=Anna Richter/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
I went to the last one but probably can't make it this time. Mary also
attends when she can to cover the Native American angle.

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	From: LDaly@doc.gov To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System [Email]
OPD ([Digital Divide...])
OA/Box Number: 250000

FOLDER TITLE:
[03/08/2000 - 03/10/2000]

2019-0203-F
jn692

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: LDaly@doc.gov (LDaly@doc.gov [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 11:27:38.00

SUBJECT: re: Digital Divide interagency meeting - Friday 12 pm

TO: Rachael F. Goldfarb (CN=Rachael F. Goldfarb/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
(b)(6) Laureen Daly

Laureen Daly
Senior Policy Advisor
Office of the Secretary
U.S. Department of Commerce
(202) 482-6062
(202) 482-4636 fax
ldaly@doc.gov
[001]
---------- Original Text ----------

From: S=Rachael(u)F.(u)Goldfarb/C=US/A=INTERNET/DDA=ID/Rachael(u)F.(u, on 03/09/2000 10:16 AM:

There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231 Old Executive Office Building. Please confirm your attendance and include full name, dob and social security number. Thanks.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Judy Brewer <jbrewer@w3.org> (Judy Brewer <jbrewer@w3.org> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 17:49:55.00

SUBJECT: Proposal for a Boston/Accessibility segment, Digital Divide Tour

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Tom:

FYI, here is the proposal for a Boston stop on the new markets tour.

The attached file is a cleaner read than the text below.

Judy

>Date: Wed, 08 Mar 2000 23:50:09 -0500
>To: Jonathan_M._Young@who.eop.gov
>From: Judy Brewer <jbrewer@w3.org>
>Subject: Proposal for a Boston/Accessibility segment, Digital Divide Tour
>Cc: kristen_jones@who.eop.gov, Larry_Goldberg@wgbh.org, "Janet Daly"
<janet@w3.org>
>X-Attachments: D:\MyDocuments\1MNG-FUND\DigDivideBoston.doc;
>
>Jonathan:
>
>This is what Larry Goldberg and I came up with as an initial suggestion
for a cluster of Boston-area highlights around a common theme related to
the digital divide. Obviously the format and length of the suggested
demonstrations and presentations could be changed in a number of ways.
>
>We look forward to discussing this possibility with you on Friday if time
allows. See you then.
>
>Regards,
>
>- Judy
>
>
>[also available as an attached Word file]
>--------
>
>Proposal for Boston/Accessibility segment of Digital Divide Tour
>
>Date: March 8, 2000
>
>From: Judy Brewer, W3C Web Accessibility Initiative (WAI)

> Larry Goldberg, WGBH National Center for Accessible Media (NCAM)
>
>Program: Remarks by the President, followed by four ten-minute demos and
presentations around the theme of Web accessibility, for an estimated program length of one hour.
>Themes: Web accessibility is vital for millions of Americans; Web accessibility is do-able; there is progress in education, in e-commerce, and in software development to support accessible Web design.
>Venue: MIT's Interactive Classroom "LiNC" (Learning Network Central) - a
fully-wired lecture hall for connecting with remote classrooms globally.
>Detail: Projects highlighted would include the following four projects:
>
>
>Project: World Wide Web Consortium (W3C) Web Accessibility Initiative (WAI)
>Focus: Guidelines, technology development, education/outreach to make Web
accessible
>Detail: International effort, hosted by World Wide Web Consortium (W3C),
to make Web accessible for people with disabilities. Ensures support for accessibility in core Web technologies; develops guidelines for Web sites, browsers, authoring tools; develops tools & educational materials; funded in part by NSF.
>Demo: Provides overview & context for following presentations. Brief
description of cross-disability barriers and demos of resources available for making Web sites and software accessible.
>Contact: Judy Brewer, Director Web Accessibility Initiative, W3C
> jbrewer@w3.org, 617 258 9741
> http://www.w3.org/WAI
>
>Project: WGBH National Center for Accessible Media (NCAM) & MIT PIVOT
Project (Physics Interactive Video On-Line Tutor)
>Focus: Accessible on-line education
>Detail: Collaborative effort with WGBH/NCAM & MIT Center for Advanced
Educational Services (CAES), to make an introductory physics class accessible on-line, using captions for audio and descriptions for video; funded in part by NSF.
>Demo: Individual w/ a visual disability and individual with a hearing
disability browsing accessible physics curriculum; and brief demo of captioning & description tools. Brief description of project by NCAM Director and CAES Director.
>Contact:Larry Goldberg, Director National Center for Accessible Media, WGBH
> Larry_Goldberg@wgbh.org, 617 300 3722
> http://www.wgbh.org/ncam

>
>Project: Bell Atlantic's BellAtlantic.com site
>Focus: Accessible e-commerce Web site
>Detail: Shows corporate commitment to Universal Design Principles
and
implementation of W3C Web Content Accessibility Guidelines on commercial
Web site.
>Demo: Brief tour by individual with visual disability of e-commerce
aspects (checking phone bill, purchasing services)
>Contact: Rich Ellis, Director of Strategic Alliances, Bell
Atlantic
> rtellis@bellatlantic.net, 202 336 7839
> http://www.bellatlantic.com
>
>Project: Allaire Corporation's HomeSite authoring tool
>Focus: Integration of accessibility principles into top of market
commercial-grade authoring tool for Web sites
>Detail: Presentation of accessibility improvements underway in
HomeSite
>Demo: Demo of how easily accessible pages can be built w/
HomeSite; and
how little effort is required to convert inaccessible pages.
>Contact: Patrik Muzila, Development Manager for Visual Tools
Group,
Allaire Corporation
> patrik@allaire.com, 617 761 2175
> http://www.allaire.com/products/homesite/index.cfm
>
- DigDivideBoston.doc--
Judy Brewer jbrewer@w3.org +1.617.258.9741 http://www.w3.org/WAI
Director, Web Accessibility Initiative (WAI) International Program Office
World Wide Web Consortium (W3C)
MIT/LCS Room NE43-355, 545 Technology Square, Cambridge, MA, 02139, USA
========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D3]ARMS20649557M.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

Proposal for Boston/Accessibility segment of Digital Divide Tour

Date: March 8, 2000
From: Judy Brewer, W3C Web Accessibility Initiative (WAI)
Larry Goldberg, WGBH National Center for Accessible Media (NCAM)

Program: **Remarks by the President, followed by four ten-minute demos and presentations around the theme of Web accessibility, for an estimated program length of one hour.**
Themes: **Web accessibility is vital for millions of Americans; Web accessibility is do-able; there is progress in education, in e-commerce, and in software development to support accessible Web design.**
Venue: **MIT's Interactive Classroom "LiNC" (Learning Network Central) – a fully-wired lecture hall for connecting with remote classrooms globally.**
Detail: **Projects highlighted would include the following four projects:**

Project: **World Wide Web Consortium (W3C) Web Accessibility Initiative (WAI)**
Focus: Guidelines, technology development, education/outreach to make Web accessible
Detail: International effort, hosted by World Wide Web Consortium (W3C), to make Web accessible for people with disabilities. Ensures support for accessibility in core Web technologies; develops guidelines for Web sites, browsers, authoring tools; develops tools & educational materials; funded in part by NSF.
Demo: Provides overview & context for following presentations. Brief description of cross-disability barriers and demos of resources available for making Web sites and software accessible.
Contact: Judy Brewer, Director Web Accessibility Initiative, W3C
jbrewer@w3.org, 617 258 9741
http://www.w3.org/WAI

Project: **WGBH National Center for Accessible Media (NCAM) & MIT PIVOT Project (Physics Interactive Video On-Line Tutor)**
Focus: Accessible on-line education
Detail: Collaborative effort with WGBH/NCAM & MIT Center for Advanced Educational Services (CAES), to make an introductory physics class

accessible on-line, using captions for audio and descriptions for video; funded in part by NSF.

Demo: Individual w/ a visual disability and individual with a hearing disability browsing accessible physics curriculum; and brief demo of captioning & description tools. Brief description of project by NCAM Director and CAES Director.

Contact: Larry Goldberg, Director National Center for Accessible Media, WGBH
Larry_Goldberg@wgbh.org, 617 300 3722
http://www.wgbh.org/ncam

Project: Bell Atlantic's BellAtlantic.com site

Focus: Accessible e-commerce Web site

Detail: Shows corporate commitment to Universal Design Principles and implementation of W3C Web Content Accessibility Guidelines on commercial Web site.

Demo: Brief tour by individual with visual disability of e-commerce aspects (checking phone bill, purchasing services)

Contact: Rich Ellis, Director of Strategic Alliances, Bell Atlantic
rtellis@bellatlantic.net, 202 336 7839
http://www.bellatlantic.com

Project: Allaire Corporation's HomeSite authoring tool

Focus: Integration of accessibility principles into top of market commercial-grade authoring tool for Web sites

Detail: Presentation of accessibility improvements underway in HomeSite

Demo: Demo of how easily accessible pages can be built w/ HomeSite; and how little effort is required to convert inaccessible pages.

Contact: Patrik Muzila, Development Manager for Visual Tools Group, Allaire Corporation
patrik@allaire.com, 617 761 2175
http://www.allaire.com/products/homesite/index.cfm

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Elizabeth B. Echols (CN=Elizabeth B. Echols/O=OVP [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 18:46:58.00

SUBJECT: Re: Digital Divide interagency meeting - Friday 12 pm

TO: Rachael F. Goldfarb (CN=Rachael F. Goldfarb/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

CC: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
It is unlikely that I will be able to make this meeting due to a prior commitment. However, Ron Keohane will attend for our office. Thanks!

Rachael F. Goldfarb@EOP
03/09/2000 10:11:35 AM
Record Type: Record

To: See the distribution list at the bottom of this message
cc:
Subject: Digital Divide interagency meeting - Friday 12 pm

There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231 Old Executive Office Building. Please confirm your attendance and include full name, dob and social security number. Thanks.

Message Sent
To:
harris-seth@dol.gov
klevy@ntia.doc.gov
Andrea Kane/OPD/EOP@EOP
esummy@os.dhhs.gov
marianne.smith@ost.dot.gov @ inet
albert.eisenberg@ost.dot.gov @ inet
Linda.Darr@ost.dot.gov @ inet
Leon.Simpson@ost.dot.gov @ inet
norma.krayem@ost.dot.gov @ inet
loretta.stevenson@ost.dot.gov
David W. Beier/OVP@OVP
Jim Kohlenberger/OVP@OVP

Andrew F. Schneider/OVP@OVP
Eric P. Liu/OPD/EOP@EOP
Mary L. Smith/OPD/EOP@EOP
Andrew J. Mayock/WHO/EOP@EOP
Marjorie Tarmey/WHO/EOP@EOP
Lynn G. Cutler/WHO/EOP@EOP
Rachel A. Redington/WHO/EOP@EOP
Maria E. Soto/WHO/EOP@EOP
Jennifer M. Palmieri/WHO/EOP@EOP
Stephanie A. Cutter/WHO/EOP@EOP
Ruby Shamir/OPD/EOP@EOP
Michael J. Brien/CEA/EOP@EOP
Douglas V. Almond/CEA/EOP@EOP
Lisa M. Kountoupes/WHO/EOP@EOP
Joshua J. Ackil/WHO/EOP@EOP
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Ariel_M._Zwang@HUD.GOV @ inet
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mwarren@doc.gov @ inet
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Jacquie_M._Lawing@hud.gov @ inet
mmatthew@ocdx.usda.gov @ inet
prichman@ocdx.usda.gov @ inet
Camclean@rus.usda.gov @ inet
Ahaynes@usda.gov @ inet
clyde.williams@usda.gov @ inet
Jgomperts@cns.gov @ inet
lroberts@ed.gov @ inet
Mark D. Magana/WHO/EOP@EOP
Christine_P._Pilosi@hud.gov
Phyllis A. Love/OVP@OVP
Aram H. Kailian/OVP@OVP
Irma L. Martinez/WHO/EOP@EOP
Kris M Balderston/WHO/EOP@EOP
Elizabeth B. Echols/OVP@OVP
ldaly@doc.gov
carole_wacey@ed.gov
julie_kaminkow@ed.gov
Andrea Kane/OPD/EOP@EOP
Joel K. Wiginton/WHO/EOP@EOP
glynis.long@sba.gov
deborah_vincent@hud.gov
jan-m.williams@usda.gov

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: technologydaily-alert@nationaljournal.com (technologydaily-alert@nationaljournal.com [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 16:25:03.00

SUBJECT: Technology Daily: Is E-rate Expansion Cure For Digital Divide?

TO: Malcolm R. Lee (CN=Malcolm R. Lee/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
This afternoon's National Journal's Technology Daily PM Edition is now available on nationaljournal.com:
http://nationaljournal.com/pubs/techdaily/

TOP STORIES:
H-1B fever hits the Hill as Senate Judiciary passes Hatch's bill and Dreier joins with New Dems to raise cap on visas; Reno and Daley release cybercrime report; ICANN continues to chat in Cairo; could there ever be another Koskinen?; and more.

ALSO ON THE TECH DAILY SITE THIS AFTERNOON:
State Roundup: Localities learn that the way to their constituents is through the Internet.
http://www.nationaljournal.com/pubs/techdaily/features/states/index.htm

TODAY ON NATIONALJOURNAL.COM:
-- Pencil Necks: The Media, Not Voters, Hounded Bradley Out Of The Race
http://nationaljournal.com/members/buzz/pencilnecks.htm

-- Poll Track: The Latest Numbers On Campaign 2000
http://nationaljournal.com/members/polltrack/2000/races/

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ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Paul Richman <prichman@ocdx.usda.gov> (Paul Richman <prichman@ocdx.usda.gov> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 11:26:56.00

SUBJECT: RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - F riday 12 pm

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Hi Natasha,

My boss here at USDA, Office of Community Development Maria Matthews, informed me that Jan Williams and Jim Newby from the Undersecretary of Rural
Development Office will be handling this and attending the meeting. If you still want me to be invovled, I think you may need to call Jan Williams, and
let him know that, so that I could attend. Sorry about this, but you know how agency bureaucracies can be, especially here at USDA. Let me know what the result is. Thanks.

Paul

-----Original Message-----
From: Natasha_F._Bilimoria@opd.eop.gov
[mailto:Natasha_F._Bilimoria@opd.eop.gov]
Sent: Thursday, March 09, 2000 10:53 AM
To: harris-seth@dol.gov; klevy@ntia.doc.gov; Andrea_Kane@opd.eop.gov; esummy@os.dhhs.gov; marianne.smith@ost.dot.gov; albert.eisenberg@ost.dot.gov; linda.darr@ost.dot.gov; leon.simpson@ost.dot.gov; norma.krayem@ost.dot.gov; loretta.stevenson@ost.dot.gov; david_w._beier%ovp@oa.eop.gov; jim_kohlenberger%ovp@oa.eop.gov; andrew_f._schneider%ovp@oa.eop.gov; Eric_P._Liu@opd.eop.gov; Mary_L._Smith@opd.eop.gov; Andrew_J._Mayock@who.eop.gov; Marjorie_Tarmey@who.eop.gov; Lynn_G._Cutler@who.eop.gov; Rachel_A._Redington@who.eop.gov; Maria_E._Soto@who.eop.gov; Jennifer_M._Palmieri@who.eop.gov; Stephanie_A._Cutter@who.eop.gov; Ruby_Shamir@opd.eop.gov; Michael_J._Brien@cea.eop.gov; Douglas_V._Almond@cea.eop.gov; Lisa_M._Kountoupes@who.eop.gov; Joshua_J._Ackil@who.eop.gov; barbara_bostick-hunt@hud.gov; ariel_m._zwang@hud.gov; cliff.kellogg@do.treas.gov; luechtw@cdfi.treas.gov; heyman-stephen@dol.gov; grohde@doc.gov; mwarren@doc.gov; theodore.wartell@sba.gov; betsy.kim@sba.gov; jacquie_m._lawing@hud.gov; mmatthew@ocdx.usda.gov; prichman@ocdx.usda.gov; camclean@rus.usda.gov; ahaynes@usda.gov; clyde.williams@usda.gov; jgomperts@cns.gov; lroberts@ed.gov; Mark_D._Magana@who.eop.gov; christine_p._pilosi@hud.gov; phyllis_a._love%ovp@oa.eop.gov; aram_h._kailian%ovp@oa.eop.gov; Irma_L._Martinez@who.eop.gov;

Kris_M_Balderston@who.eop.gov; elizabeth_b._echols%ovp@oa.eop.gov; ldaly@doc.gov; carole_wacey@ed.gov; julie_kaminkow@ed.gov; Joel_K._Wiginton@who.eop.gov; glynis.long@sba.gov; deborah_vincent@hud.gov; jan-m.williams@usda.gov
Cc: Rachael_F._Goldfarb@opd.eop.gov; Gigi_E._Georges@opd.eop.gov; Thomas_A._Kalil@opd.eop.gov
Subject: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm

Just so there is no confusion, at our last meeting we had said this meeting would be at 11am--this has been rescheduled for 12pm on Friday (tomorrow). As the email below states, you should foward your clearance information to Rachael Goldfarb. Couple of issues:

Call to Action: We apologize for not sending this out as of yet. We hope to have it for you tomorrow at our meeting.

Commitment/Deliverable Ideas: Please email me your deliverable and site ideas by 12pm tomorrow and also bring a hard copy to the meeting.

Thanks again--we appreciate all of your assistance (and patience).

Rachael F. Goldfarb
03/09/2000 10:11:35 AM

Record Type: Record

To: See the distribution list at the bottom of this message

cc:
Subject: Digital Divide interagency meeting - Friday 12 pm

There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231 Old Executive Office Building. Please confirm your attendance and include full name, dob and social security number. Thanks.

Message Sent
To:_____

harris-seth@dol.gov
klevy@ntia.doc.gov
Andrea Kane/OPD/EOP@EOP

csummy@os.dhhs.gov
marianne.smith@ost.dot.gov @ inet
albert.eisenberg@ost.dot.gov @ inet
Linda.Darr@ost.dot.gov @ inet
Leon.Simpson@ost.dot.gov @ inet
norma.krayem@ost.dot.gov @ inet
loretta.stevenson@ost.dot.gov
David W. Beier/OVP@OVP
Jim Kohlenberger/OVP@OVP
Andrew F. Schneider/OVP@OVP
Eric P. Liu/OPD/EOP@EOP
Mary L. Smith/OPD/EOP@EOP
Andrew J. Mayock/WHO/EOP@EOP
Marjorie Tarmey/WHO/EOP@EOP
Lynn G. Cutler/WHO/EOP@EOP
Rachel A. Redington/WHO/EOP@EOP
Maria E. Soto/WHO/EOP@EOP
Jennifer M. Palmieri/WHO/EOP@EOP
Stephanie A. Cutter/WHO/EOP@EOP
Ruby Shamir/OPD/EOP@EOP
Michael J. Brien/CEA/EOP@EOP
Douglas V. Almond/CEA/EOP@EOP
Lisa M. Kountoupes/WHO/EOP@EOP
Joshua J. Ackil/WHO/EOP@EOP
Barbara_Bostick-Hunt@HUD.GOV @ inet
Ariel_M._Zwang@HUD.GOV @ inet
cliff.kellogg@do.treas.gov @ inet
LuechtW@cdfi.treas.gov
heyman-stephen@dol.gov
harris-seth@dol.gov
grohde@doc.gov @ inet
mwarren@doc.gov @ inet
theodore.wartell@sba.gov @ inet
betsy.kim@sba.gov @ inet
Jacquie_M._Lawing@hud.gov @ inet
mmatthew@ocdx.usda.gov @ inet
prichman@ocdx.usda.gov @ inet
Camclean@rus.usda.gov @ inet
Ahaynes@usda.gov @ inet
clyde.williams@usda.gov @ inet
Jgomperts@cns.gov @ inet
lroberts@ed.gov @ inet
Mark D. Magana/WHO/EOP@EOP
Christine_P._Pilosi@hud.gov
Phyllis A. Love/OVP@OVP
Aram H. Kailian/OVP@OVP
Irma L. Martinez/WHO/EOP@EOP
Kris M Balderston/WHO/EOP@EOP
Elizabeth B. Echols/OVP@OVP
ldaly@doc.gov
carole_wacey@ed.gov
julie_kaminkow@ed.gov
Andrea Kane/OPD/EOP@EOP
Joel K. Wiginton/WHO/EOP@EOP

glynis.long@sba.gov
deborah_vincent@hud.gov
jan-m.williams@usda.gov

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Anna Richter (CN=Anna Richter/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 18:56:30.00

SUBJECT: Re: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm

TO: Andrea Kane (CN=Andrea Kane/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
thanks

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: "Zufolo, Jessica" <JZufolo@naruc.org> ("Zufolo, Jessica" <JZufolo@naruc.org> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 18:25:21.00

SUBJECT: RE: Digital Divide

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
it was really nice to meet with you this afternoon. Bob and I will get
you success stories asap.

Jessica

-----Original Message-----
From: Thomas_A._Kalil@opd.eop.gov [mailto:Thomas_A._Kalil@opd.eop.gov]
Sent: Wednesday, March 01, 2000 2:19 PM
To: jzufolo@naruc.org
Subject: Digital Divide

(See attached file: 0222dig-divide-frameshortest.doc)

http://www.whitehouse.gov/WH/New/digitaldivide/

As we discussed.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Irene Bueno (CN=Irene Bueno/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 12:46:25.00

SUBJECT: Re: H1-B & Digital Divide

TO: Joel K. Wiginton (CN=Joel K. Wiginton/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

CC: maria echaveste (CN=maria echaveste/OU=who/O=eop@eop [WHO])
READ:UNKNOWN

CC: thomas a. kalil (CN=thomas a. kalil/OU=opd/O=eop@eop [OPD])
READ:UNKNOWN

CC: brian v. kennedy (CN=brian v. kennedy/OU=opd/O=eop@eop [OPD])
READ:UNKNOWN

TEXT:
thanks for the update. Any idea when it's going to the Senate floor?

Joel K. Wiginton
03/09/2000 12:37 PM
Record Type: Record

To: Brian V. Kennedy/OPD/EOP@EOP
cc: Maria Echaveste/WHO/EOP@EOP, Irene Bueno/OPD/EOP@EOP, Thomas A. Kalil/OPD/EOP@EOP
bcc:
Subject: H1-B & Digital Divide

Kennedy Substitute -- failed 8-10 w/ Grassley voting yes and Feinstein no

Feinstein Training and Ed -- passed 12-6 with all Dems voting no except Biden and Feinstein

Kyl 2nd Degree to Feinstein putting Commerce in charge of T & E -- failed by voice vote

Biden Boys & Girls Club Digital Divide -- passed by voice vote

Feingold amendment granting citizenship to some Hmong -- withdrawn

Final Passage -- passed 14-4 with Biden, Feinstein, Kohl, and Schumer

voting yes

Brian V. Kennedy
03/09/2000 10:00:33 AM
Record Type: Record

To: Joel K. Wiginton/WHO/EOP@EOP
cc:
Subject:

Will you be able to give me a download on the H-1B markup today?

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Brad_Thatcher@coltrin.com (Brad_Thatcher@coltrin.com [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 18:37:07.00

SUBJECT: Additional Background on 3Com/YWCA Digital Divide Initiative

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

CC: karin_bakis@3Com.com (karin_bakis@3Com.com [UNKNOWN])
READ:UNKNOWN

CC: greg_garcia@3com.com (greg_garcia@3com.com [UNKNOWN])
READ:UNKNOWN

TEXT:
Tom,

Thank you again for your interest in the 3Com/YWCA Connected Entrepreneur program. In addition to attaching the background information we sent you previously, we have attached two slides that outline the impact and scope of this program (if you have any trouble reading PowerPoint documents, we can fax them to you).

The quarterly program is designed and planned for implementation with launch events in cities with a population of roughly one million or more. By enlisting entrepreneurs to serve as economic heroes and mentors to youth in their communities, 3Com and the YWCA are going beyond providing access to technology. They are taking the first steps in creating a digital opportunity for underserved communities. As the attachments demonstrate, this initiative focuses on concrete activities that connect underserved youth with real role models from their own communities.

Although our launch event is planned for early April in Brooklyn, NY, bear in mind this program is not geographically restricted. Wherever the White House decides to go on its new markets tour April 9-11, we can be there with this program.

Since we spoke last, 3Com has created a new program with the YWCA called NetPrep GYRLS that will offer high-school-aged girls training in computer networking. Currently, the YWCA offers after-school computer classes for girls aged 9-13 through its TechGYRLS program. The addition of the 3Com NetPrep curriculum allows high school girls to continue their after-school technical education with a focus on computer networking, leading to industry-standard certification. We will be unveiling this new program in conjunction with the launch of the Connected Entrepreneur initiative.

Both 3Com and the YWCA of the USA are fully committed to fund and support this nationwide program. CEOs from both organizations are personally committed to this initiative. Any involvement by the Clinton

administration in support of this important program would dramatically enhance its success.

Please feel free to contact me or Greg Garcia if you have any questions or would like any additional information.

Brad Thatcher
Coltrin & Associates
212/221-1616

(See attached file: Connected Entrepreneur Impact.ppt)

Per our discussion, here is additional background on the Connected Entrepreneur program. 3Com and the YWCA have partnered to create the Connected Entrepreneur program (http://www.3Com.com/smallbusiness/tce), which is designed to spotlight "economic heroes" who have successful small businesses in the inner cities and who are committed to bridging the digital divide. Our program helps entrepreneurs bridge the divide by awarding their company and a local YWCA TechGYRLS program with a 3Com networking technology grant. TechGYRLS is a program designed for girls to raise their interest, confidence and competence in the area of technology (http://www.ywca.org/html/B4d9a2.asp). The YWCA and 3Com plan to launch the program with an awards ceremony at the mid-town Manhattan or Brooklyn YWCA in early April.

In addition, 3Com Corporation will be teaming up with the YWCA to offer high-school-aged girls training in computer networking through the YWCA's new NetPrep GYRLS program. Currently, the YWCA offers after-school computer classes for girls aged 9 - 13 in their TechGYRLS program. The addition of the 3Com NetPrep curriculum allows high school girls to continue their after-school technical education with a focus on computer networking, leading to industry-standard certification.

The NetPrep program is the first vendor-neutral, standards-based curriculum of its kind to focus on the design, implementation, management and integration of computer networks. High school students who successfully complete the NetPrep program and certification gain the skills and knowledge needed for entry-level IT positions. The program also provides solid technical background for those planning to continue their education at community colleges or four-year colleges and universities. High schools already participating in the NetPrep program have reported high percentages of boys in the classes. 3Com hopes that through this partnership with the YWCA, more girls will be encouraged to pursue rewarding careers in the growing field of high tech.

To support the program, 3Com will be donating to the YWCA lab equipment sets for instructional labs, instructor training, and student materials packages.

We are pleased to honor Steve and Sheila Conner, an African-American couple as the first recipients of the Connected Entrepreneur award. Steve and

Sheila are the head of C&C films, an exciting small business that produces commercials, children's videos and web-based entertainment. The Brooklyn-based company performs nearly all aspects of film production in the digital domain.

Steve and Sheila have built a solid internship program into the company, and as the Connected Entrepreneur award recipients, have committed to establish a mentor program with the Brooklyn YWCA TechGYRLS program.

Along with many other projects, C&C Films is now working on a website that corresponds with a children's video series it has created (http://www.ave-e.com/).

Dr. Prema Mathai-Davis, CEO of the YWCA of the U.S.A., an internationally respected figure and enthusiastic supporter, has committed to be a spokesperson for the program. As you are aware, Eric Benhamou is also committed to the program and to bridging the digital divide.

I have attached a few background documents. The first is the invitation to President Clinton to participate in the event. The second is a case study about the winning company, and the third is an article that has appeared on BusinessWeek Online about the Connected Entrepreneur program. The press release announcing the program can be found at http://www.3com.com/news/releases/pr99/nov0899a.html

Please let me know if you have any questions regarding this program.
Thanks.

Brad Thatcher
Coltrin & Associates
212-221-1616

(See attached file: Formal Invitation.doc)

(See attached file: C&C Case Study.doc)
(See attached file: Business Week Connected Entrepreneur.doc)
- Connected Entrepreneur Impact.ppt - Formal Invitation.doc - C&C Case Study.doc - Business Week Connected Entrepreneur.doc========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D48]ARMS25934657J.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

========== ATTACHMENT 2 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D48]ARMS28934657K.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 2 ==========

========== ATTACHMENT 3 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D48]ARMS20044657L.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 3 ==========

========== ATTACHMENT 4 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D48]ARMS21044657M.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 4 ==========

FOIA Number: 2019-0203-F

Clinton Presidential Records Automated Records Management System [EMAIL]

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

Hex Dump file is not in a recognizable format, has been incorrectly decoded or is damaged.

File Name: p_i7564395_opd_html_1.msoff

Attachment Number: [ATTACH.D48]ARMS25934657J.046

Honorable William Jefferson Clinton
President of the United States
The White House
1600 Pennsylvania Avenue
Washington, DC 20050

Dear President Clinton,

RE: Bridging the Digital Divide

On behalf of 3Com Corporation and the YWCA of the U.S.A., we invite you to participate in the inaugural award ceremony of 3Com's recently launched Connected Entrepreneur program in early April of 2000, in New York City.

The goal of this quarterly program is to spotlight "economic heroes" who have created successful small businesses in economically challenged areas. Our program honors these heroes by awarding them a network technology grant from 3Com. By recognizing these individuals and the importance of information technology, 3Com and the YWCA of the U.S.A. aim to provide outstanding examples for communities faced with barriers to success in business, and life.

In today's information driven society, a gap has developed between information technology haves and have-nots. Often, women and minorities are the have-nots. Despite many recent advances, minorities and women still face a large digital divide. We want to make a meaningful contribution toward changing this trend.

3Com will award economic heroes by providing their small businesses with the technology tools that enable them to continue to thrive. In return, the honorees commit to mentor young girls and others who come to the YWCA for assistance. 3Com will also award technology grants to YWCA TechGYRLS programs throughout the country.

As a leader in championing access to information technology, you are invited to be the featured participant for our event. We will follow up with your office on this matter.

We believe your participation in this event would have a major impact in raising awareness of this critical issue.

Sincerely,

Eric Benhamou
Chief Executive Officer
3Com Corporation

Prema Mathai-Davis
Chief Executive Officer
YWCA of the U.S.A.

Automated Records Management System
Hex-Dump Conversion

C&C Films Creates a Corporate Hit Starring Advanced Technologies

Five years ago, Steve Conner and Sheila Simmons, a husband and wife, sat in their living room in Queens, NY, and pondered creating a global film studio. Whereas for most of us, such musings are but pipe dreams, the couple promptly created C&C Films, Ltd. Starting in their home, C&C began by producing commercials and now is moving to films, children's videos and other forms of entertainment. In only four years, the firm's gross revenues ballooned from $96,000 to $3.8 million, and the company is poised to create and market programming for audiences worldwide.

The key to the firm's remarkable success is technology. The company performs nearly all aspects of film production in the digital domain. From script-writing and editing to sound mixing and post-production work, everything is done on Macintosh and PC workstations and technologies such as Avid's video editing software. Footage from shoots, along with scores and soundtracks, are digitized and then edited, touched up and mixed by computers.

Animators use the Macromedia Flash and Softimage Toonz programs to create both Web-based and traditional animation. Musicians and sound editors rely on the Studio Vision digital music production suite of tools, as well as mixing boards and music synthesizers, to enhance and mix soundtracks and scores. Artists work in a host of graphic applications and use Adobe PhotoShop and Discreet's Flame application to detail images in the post-production stage.

To share resources and move extremely large video and sound files quickly and efficiently among its production staff, the company depends on an Ethernet local area network (LAN). Should an artist require a matte painting residing on a colleague's hard drive, for example, the file can be retrieved almost instantly via the network. The production house even uses the network to send video clips and other data over the Internet to users on-site at production shoots, ensuring materials are quickly edited and approved for clients.

"The advanced technologies offered by 3Com and other vendors have leveled the playing field for a small firm like ours," said Conner, president of C&C Films, Ltd. "Before digital technologies, huge production staffs were needed to create a one-minute commercial or a three-minute animated short. Now, computers do all the truly laborious work, enabling us to develop programming with a fraction of the personnel and in less time.

"We lower our costs and tighten our production schedules to better meet our clients' needs," added Conner. "Moreover, with our computer and networking tools, we can digitally create anything the largest production houses and studios can, from dinosaurs to

starships. By delivering on the highest production values, we can compete with anybody."

Now based in a 5,000 square-foot facility in Brooklyn, NY, C&C Films offers clients a complete range of film and video production services, from generating storyboards to post-production work and even marketing. The firm already has produced commercials for such accounts as Coca-Cola, Budweiser, McDonald's, Burger King and HBO. Building on this success, C&C Films created, produced and marketed the first in a series of half-hour children shows entitled "Avenue E." Presently, the company has a full-time staff of twelve and hires outside talent as needed for its production schedule. It plans to soon expand its capabilities to include the production and marketing of feature-length films.

Anything is Possible with the Right Tools

From its roots in a Queens living room, the story of C&C Films is an odyssey almost worthy of a Hollywood film. Conner, an advertising agency director, and Simmons, whose background is in marketing, were offered the opportunity to produce a commercial for a local client. Using an early generation word processor and a leased photocopier and fax machine, the team effectively developed the spot and then did a commercial for a sneaker manufacturer. Soon, advertisers, ad agencies and other production houses began to approach C&C Films for its services.

Quickly outgrowing their living room, Conner and Simmons relocated C&C Films to a facility in Manhattan where they had access to computers. When this space became too small, they moved to a location in SoHo where they acquired additional high-tech tools such as the Avid video editor and an Ethernet LAN. Soon, they required an even larger facility to meet the demand for their work and established the company in its present Brooklyn location.

Investing in People As Well As Technologies

Technologies are enabling tools for C&C Films, but the talent, creativity and vision of its employees remain the firm's lifeblood. For this reason, Conner and Simmons actively recruit gifted youths from high schools, colleges and elsewhere to serve as interns at the company. The firm generally has 7-10 interns, with more during the summer vacation months, each mentoring with the firm's staff to learn about film, video and sound production and technologies.

Automated Records Management System
Hex-Dump Conversion

"We're always looking for promising youths who can succeed in our business," explained Conner. "It's very satisfying to offer a talented kid the chance to perform, but we also operate our mentoring program out of enlightened self-interest. For this company to continue growing, we need to identify bright, young people who can grow with us and provide energy, creativity and originality."

Avenue E Leads to the Internet

C&C Films views "Avenue E" as a stepping stone to feature films, broader markets and innovative distribution. A combination of live action and computer animation and featuring the voice of veteran actor Ossie Davis, "Avenue E" is marketed exclusively on its own Web site (www.ave-e.com) on videocassette. In keeping with its shrewd use of technologies, the company eventually plans to produce films that it distributes directly over the Internet.

"With high-speed Internet access proliferating, audiences will be able to download even feature films quickly," said Simmons. "The day will come when films will be released and distributed on the Net rather than through theaters or cable television. Just as technologies offer new and innovative ways to produce high-quality programming, they'll provide new and innovative ways to reach audiences both in America and abroad."

The Future for Connected Entrepreneurs

C&C Films will implement new technologies to further speed and improve its production processes. The company will install 3Com OfficeConnect' Switch 1600 16-port switches to speed file transfers among users on the LAN. It will upgrade its Internet access by deploying an OfficeConnect SDSL Router. Using Symmetrical Digital Subscriber Line (SDSL) technology, the device will provide bandwidth comparable to a T1 line but at much lower costs, enabling faster exchanges of files with remote colleagues and clients.

The production house also will implement an OfficeConnect 56K LAN Modem to provide users with rapid dial-up connectivity to the Internet, as well as the OfficeConnect Internet Firewall DMZ to safeguard all files from unauthorized access. Moreover, the firm will install a server to house a library for images and other digital resources. With these and other resources, the firm will enhance its corporate Web site to highlight its latest work, showcase the talents of its employees and market and distribute its products.

Automated Records Management System
Hex-Dump Conversion

"Technologies enabled us to get this far and they'll allow us to realize our dream of becoming a successful film studio," concluded Conner. "By staying current with film, video and networking advances and involving promising new talent, C&C Films will soon produce, market and distribute films entirely electronically. With the right tools from 3Com and others, C&C Films will continue to capitalize on this digital revolution."

#

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Business Week Online
A Small-Biz Grant for Doing Good
3Com and the YWCA seek companies that will serve as tech mentors
By Jeremy Quittner
December 2, 1999

Seems like everyone wants to give small businesses money these days. Now 3Com Corp., the Santa Clara (Calif.) computer networking company, and the YWCA, are teaming up to add their names to the roster.

Starting this February, the two organizations will choose one small business each quarter to receive a "technology grant," worth between $500 and $3,000. The grant will be for 3Com's networking equipment, including routers, modems, hubs, and the like.

There's a catch, though. Winners must set up a mentor program for women, teenage girls, or people from disadvantaged backgrounds to teach them technological and business skills. "There are a lot of situations where women and girls and other minorities may not have the same access to technology," says Robyn Porter, a spokeswoman for 3Com. "We want to bridge the divide." Mentor programs must operate at least for one quarter and must assist at least one person.

So who qualifies? Businesses that are at least two years old and have 100 or fewer employees. Companies must also have a computer network and a connection to the Internet. 3Com and the YWCA, which will help judge the entries, will look for growing companies that have a track record of assisting their communities.

Small businesses can apply by filling out an online form at 3Com's site (www.3com.com/smallbusiness/tce) or by calling 3Com to request a form.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 12:16:28.00

SUBJECT: RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - F riday 12 pm

TO: Gigi E. Georges (CN=Gigi E. Georges/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
Do you want Paul to attend?
---------- Forwarded by Natasha F. Bilimoria/OPD/EOP on
03/09/2000 12:16 PM ----------

Paul Richman <prichman@ocdx.usda.gov>
03/09/2000 11:21:38 AM
Record Type: Record

To: Natasha F. Bilimoria/OPD/EOP
cc:
Subject: RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - F
riday 12 pm

Hi Natasha,

My boss here at USDA, Office of Community Development Maria Matthews,
informed me that Jan Williams and Jim Newby from the Undersecretary of
Rural
Development Office will be handling this and attending the meeting. If you
still want me to be invovled, I think you may need to call Jan Williams,
and
let him know that, so that I could attend. Sorry about this, but you know
how agency bureaucracies can be, especially here at USDA. Let me know what
the result is. Thanks.

Paul

-----Original Message-----
From: Natasha_F._Bilimoria@opd.eop.gov
[mailto:Natasha_F._Bilimoria@opd.eop.gov]
Sent: Thursday, March 09, 2000 10:53 AM
To: harris-seth@dol.gov; klevy@ntia.doc.gov; Andrea_Kane@opd.eop.gov;
esummy@os.dhhs.gov; marianne.smith@ost.dot.gov;
albert.eisenberg@ost.dot.gov; linda.darr@ost.dot.gov;
leon.simpson@ost.dot.gov; norma.krayem@ost.dot.gov;
loretta.stevenson@ost.dot.gov; david_w._beier%ovp@oa.eop.gov;

jim_kohlenberger%ovp@oa.eop.gov; andrew_f._schneider%ovp@oa.eop.gov;
Eric_P._Liu@opd.eop.gov; Mary_L._Smith@opd.eop.gov;
Andrew_J._Mayock@who.eop.gov; Marjorie_Tarmey@who.eop.gov;
Lynn_G._Cutler@who.eop.gov; Rachel_A._Redington@who.eop.gov;
Maria_E._Soto@who.eop.gov; Jennifer_M._Palmieri@who.eop.gov;
Stephanie_A._Cutter@who.eop.gov; Ruby_Shamir@opd.eop.gov;
Michael_J._Brien@cea.eop.gov; Douglas_V._Almond@cea.eop.gov;
Lisa_M._Kountoupes@who.eop.gov; Joshua_J._Ackil@who.eop.gov;
barbara_bostick-hunt@hud.gov; ariel_m._zwang@hud.gov;
cliff.kellogg@do.treas.gov; luechtw@cdfi.treas.gov;
heyman-stephen@dol.gov; grohde@doc.gov; mwarren@doc.gov;
theodore.wartell@sba.gov; betsy.kim@sba.gov; jacquie_m._lawing@hud.gov;
mmatthew@ocdx.usda.gov; prichman@ocdx.usda.gov; camclean@rus.usda.gov;
ahaynes@usda.gov; clyde.williams@usda.gov; jgomperts@cns.gov;
lroberts@ed.gov; Mark_D._Magana@who.eop.gov;
christine_p._pilosi@hud.gov; phyllis_a._love%ovp@oa.eop.gov;
aram_h._kailian%ovp@oa.eop.gov; Irma_L._Martinez@who.eop.gov;
Kris_M_Balderston@who.eop.gov; elizabeth_b._echols%ovp@oa.eop.gov;
ldaly@doc.gov; carole_wacey@ed.gov; julie_kaminkow@ed.gov;
Joel_K._Wiginton@who.eop.gov; glynis.long@sba.gov;
deborah_vincent@hud.gov; jan-m.williams@usda.gov
Cc: Rachael_F._Goldfarb@opd.eop.gov; Gigi_E._Georges@opd.eop.gov;
Thomas_A._Kalil@opd.eop.gov
Subject: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm

Just so there is no confusion, at our last meeting we had said this meeting would be at 11am--this has been rescheduled for 12pm on Friday (tomorrow). As the email below states, you should foward your clearance information to Rachael Goldfarb. Couple of issues:

Call to Action: We apologize for not sending this out as of yet. We hope to have it for you tomorrow at our meeting.

Commitment/Deliverable Ideas: Please email me your deliverable and site ideas by 12pm tomorrow and also bring a hard copy to the meeting.

Thanks again--we appreciate all of your assistance (and patience).

Rachael F. Goldfarb
03/09/2000 10:11:35 AM

Record Type: Record

To: See the distribution list at the bottom of this message

cc:
Subject: Digital Divide interagency meeting - Friday 12 pm

There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231 Old Executive Office Building. Please confirm your attendance and include full name, dob and social security number. Thanks.

Message Sent
To:

harris-seth@dol.gov
klevy@ntia.doc.gov
Andrea Kane/OPD/EOP@EOP
esummy@os.dhhs.gov
marianne.smith@ost.dot.gov @ inet
albert.eisenberg@ost.dot.gov @ inet
Linda.Darr@ost.dot.gov @ inet
Leon.Simpson@ost.dot.gov @ inet
norma.krayem@ost.dot.gov @ inet
loretta.stevenson@ost.dot.gov
David W. Beier/OVP@OVP
Jim Kohlenberger/OVP@OVP
Andrew F. Schneider/OVP@OVP
Eric P. Liu/OPD/EOP@EOP
Mary L. Smith/OPD/EOP@EOP
Andrew J. Mayock/WHO/EOP@EOP
Marjorie Tarmey/WHO/EOP@EOP
Lynn G. Cutler/WHO/EOP@EOP
Rachel A. Redington/WHO/EOP@EOP
Maria E. Soto/WHO/EOP@EOP
Jennifer M. Palmieri/WHO/EOP@EOP
Stephanie A. Cutter/WHO/EOP@EOP
Ruby Shamir/OPD/EOP@EOP
Michael J. Brien/CEA/EOP@EOP
Douglas V. Almond/CEA/EOP@EOP
Lisa M. Kountoupes/WHO/EOP@EOP
Joshua J. Ackil/WHO/EOP@EOP
Barbara_Bostick-Hunt@HUD.GOV @ inet
Ariel_M._Zwang@HUD.GOV @ inet
cliff.kellogg@do.treas.gov @ inet
LuechtW@cdfi.treas.gov
heyman-stephen@dol.gov
harris-seth@dol.gov
grohde@doc.gov @ inet
mwarren@doc.gov @ inet
theodore.wartell@sba.gov @ inet
betsy.kim@sba.gov @ inet
Jacquie_M._Lawing@hud.gov @ inet
mmatthew@ocdx.usda.gov @ inet
prichman@ocdx.usda.gov @ inet

Camclean@rus.usda.gov @ inet
Ahaynes@usda.gov @ inet
clyde.williams@usda.gov @ inet
Jgomperts@cns.gov @ inet
lroberts@ed.gov @ inet
Mark D. Magana/WHO/EOP@EOP
Christine_P._Pilosi@hud.gov
Phyllis A. Love/OVP@OVP
Aram H. Kailian/OVP@OVP
Irma L. Martinez/WHO/EOP@EOP
Kris M Balderston/WHO/EOP@EOP
Elizabeth B. Echols/OVP@OVP
ldaly@doc.gov
carole_wacey@ed.gov
julie_kaminkow@ed.gov
Andrea Kane/OPD/EOP@EOP
Joel K. Wiginton/WHO/EOP@EOP
glynis.long@sba.gov
deborah_vincent@hud.gov
jan-m.williams@usda.gov

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
002. email	From: Jan-M Williams To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System [Email]
OPD ([Digital Divide...])
OA/Box Number: 250000

FOLDER TITLE:
[03/08/2000 - 03/10/2000]

2019-0203-F
jn692

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
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b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jan-M Williams <Jan-M.Williams@usda.gov> (Jan-M Williams <Jan-M.Williams@usda.gov> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 10:33:13.00

SUBJECT: Re: Digital Divide interagency meeting - Friday 12 pm

TO: Rachael F. Goldfarb (CN=Rachael F. Goldfarb/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Jan M. Williams

(b)(6)

[002]

>>> Rachael_F._Goldfarb@opd.eop.gov@inter2 03/09 10:16 AM >>>
There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231
Old Executive Office Building. Please confirm your attendance and include
full name, dob and social security number. Thanks.

Note: To assure proper delivery to all recipients, the following addresses
have been moved from the header:
- Irma_L._Martinez@who.eop.gov@inter2
<USDAHQ.GW:"Irma_L._Martinez@who.eop.gov@inter2">
- Kris_M_Balderston@who.eop.gov@inter2
<USDAHQ.GW:"Kris_M_Balderston@who.eop.gov@inter2">
- RFC-822=Elizabeth_B._Echols%OVP@oa.eop.gov@inter2
<USDAHQ.GW:"RFC-822=Elizabeth_B._Echols%OVP@oa.eop.gov@inter2">
- ldaly@doc.gov@inter2 <USDAHQ.GW:"ldaly@doc.gov@inter2">
- carole_wacey@ed.gov@inter2 <USDAHQ.GW:"carole_wacey@ed.gov@inter2">
- julie_kaminkow@ed.gov@inter2
<USDAHQ.GW:"julie_kaminkow@ed.gov@inter2">
- Andrea_Kane@opd.eop.gov@inter2
<USDAHQ.GW:"Andrea_Kane@opd.eop.gov@inter2">
- Joel_K._Wiginton@who.eop.gov@inter2
<USDAHQ.GW:"Joel_K._Wiginton@who.eop.gov@inter2">
- glynis.long@sba.gov@inter2 <USDAHQ.GW:"glynis.long@sba.gov@inter2">
- deborah_vincent@HUD.GOV@inter2
<USDAHQ.GW:"deborah_vincent@HUD.GOV@inter2">

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Andrea Kane (CN=Andrea Kane/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 17:40:15.00

SUBJECT: re: New Markets/Digital divide

TO: Irma L. Martinez (CN=Irma L. Martinez/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
I should've cc'd you on this. sorry. Kalil thought HHS could play a valuable role and it just seems weird to me that a major Cabinet agency isn't participating in an important White House initiative but maybe there's history here that I'm not aware of. NEC has included Liz on the email list for the next meeting.
---------- Forwarded by Andrea Kane/OPD/EOP on 03/09/2000 05:38 PM ----------

Andrea Kane
03/08/2000 09:16 AM
Record Type: Record

To: esummy@os.dhhs.gov
cc: Thomas A. Kalil/OPD/EOP@EOP, Natasha F. Bilimoria/OPD/EOP@EOP
bcc: Records Management@EOP
Subject: re: New Markets/Digital divide

great - as always, quick response is needed. For now, should NEC add your name to their New Markets planning distribution list?

Elizabeth Summy <esummy@os.dhhs.gov>
03/08/2000 09:11:19 AM
Please respond to esummy@os.dhhs.gov
Record Type: Record

To: Andrea Kane/OPD/EOP
cc:
Subject: re: New Markets/Digital divide

I'll get this around to a few folks and let you know.
- - - - - - - - - - - - - - Original Message - - - - - - - - - - - - - -

As you probably know, NEC has begun an intensive interagency planning process for the President's next New Markets Tour, which will focus on the digital divide. It doesn't appear that HHS is participating, though I'm double checking w/ NEC to see who they've included. It seems like there are a number of ways in which HHS could participate in and contribute to this important issue given its focus on creating opportunities for people and places that have been left behind. It's not exactly clear to me which part(s) of HHS would be most appropriate, but I'm sure you'd have ideas. Tom Kalil from NEC has drafted the attached concept paper on how technology could be used to enhance delivery of 'socal services' (very broadly defined) for low income people. We'd be very interested in having the Dept take a look and identify a few key ideas/issues HHS would be interested in promoting or following up on as part of the Tour and the ongoing digital divide initiative. I'd be glad to discuss this further by phone, or set up an opportunity for you and a few others from HHS to chat with NEC and me about this.

---------- Forwarded by Andrea Kane/OPD/EOP on 03/07/2000 05:27 PM ----------

Thomas A. Kalil
03/06/2000 06:03:21 PM

Record Type: Record

To: Andrea Kane/OPD/EOP@EOP

cc:
Subject: Applications of IT

(See attached file: socialsoftware.doc)

- - - - - - - - - - - - End of Original Message - - - - - - - - - - - -

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
003. email	From: Deborah Vincent To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System [Email]
OPD ([Digital Divide...])
OA/Box Number: 250000

FOLDER TITLE:
[03/08/2000 - 03/10/2000]

2019-0203-F
jn692

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
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PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
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b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Deborah Vincent <Deborah_Vincent@HUD.GOV> (Deborah Vincent <Deborah_Vincent@HUD.GOV> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 17:58:19.00

SUBJECT: Re: Digital Divide interagency meeting - Friday 12 pm

TO: Rachael F. Goldfarb (CN=Rachael F. Goldfarb/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
I plan to attend:

Deborah Vincent, Acting Deputy Chief of Staff

(b)(6)

[003]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: MWarren@doc.gov (MWarren@doc.gov [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 16:26:46.00

SUBJECT: Digital Divide interagency meeting - Fri

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Natasha,

I won't be able to make it, but Hunter Biden will be there. By the way, please make sure he receives the emails on the planning meetings -- he is the
Department's point person for New Markets, not me. Thanks!

Marcia

Marcia Warren
Senior Policy Advisor to the Secretary
Native American Affairs
U.S. Department of Commerce
14th Street & Constitution Avenue, NW, Room 5519
Washington DC 20230
202.482.1974 (tel)
202.482.4191 (fax)

---------- Original Text ----------

From: S=Natasha(u)F.(u)Bilimoria/C=US/A=INTERNET/DDA=ID/Natasha(u)F.(, on 03/09/2000 11:01 AM:

Complete Subject: THIS IS A TIME CHANGE: Digital Divide interage
ncy meeting - Friday 12

---------- [X.400 Text Follows]

Just so there is no confusion, at our last meeting we had said this meeting would be at 11am--this has been rescheduled for 12pm on Friday (tomorrow). As the email below states, you should foward your clearance information to Rachael Goldfarb. Couple of issues:

Call to Action: We apologize for not sending this out as of yet. We hope to have it for you tomorrow at our meeting.

Commitment/Deliverable Ideas: Please email me your deliverable and site ideas by 12pm tomorrow and also bring a hard copy to the meeting.

Thanks again--we appreciate all of your assistance (and patience).

Rachael F. Goldfarb
03/09/2000 10:11:35 AM

Record Type: Record

To: See the distribution list at the bottom of this message

cc:
Subject: Digital Divide interagency meeting - Friday 12 pm

There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231 Old Executive Office Building. Please confirm your attendance and include full name, dob and social security number. Thanks.

Message Sent
To:

harris-seth@dol.gov
klevy@ntia.doc.gov
Andrea Kane/OPD/EOP@EOP
esummy@os.dhhs.gov
marianne.smith@ost.dot.gov @ inet
albert.eisenberg@ost.dot.gov @ inet
Linda.Darr@ost.dot.gov @ inet
Leon.Simpson@ost.dot.gov @ inet
norma.krayem@ost.dot.gov @ inet
loretta.stevenson@ost.dot.gov
David W. Beier/OVP@OVP
Jim Kohlenberger/OVP@OVP
Andrew F. Schneider/OVP@OVP
Eric P. Liu/OPD/EOP@EOP
Mary L. Smith/OPD/EOP@EOP
Andrew J. Mayock/WHO/EOP@EOP
Marjorie Tarmey/WHO/EOP@EOP
Lynn G. Cutler/WHO/EOP@EOP
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Douglas V. Almond/CEA/EOP@EOP

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harris-seth@dol.gov
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mwarren@doc.gov @ inet
theodore.wartell@sba.gov @ inet
betsy.kim@sba.gov @ inet
Jacquie_M._Lawing@hud.gov @ inet
mmatthew@ocdx.usda.gov @ inet
prichman@ocdx.usda.gov @ inet
Camclean@rus.usda.gov @ inet
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clyde.williams@usda.gov @ inet
Jgomperts@cns.gov @ inet
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Mark D. Magana/WHO/EOP@EOP
Christine_P._Pilosi@hud.gov
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Aram H. Kailian/OVP@OVP
Irma L. Martinez/WHO/EOP@EOP
Kris M Balderston/WHO/EOP@EOP
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Andrea Kane/OPD/EOP@EOP
Joel K. Wiginton/WHO/EOP@EOP
glynis.long@sba.gov
deborah_vincent@hud.gov
jan-m.williams@usda.gov

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Andrea Kane (CN=Andrea Kane/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 17:51:11.00

SUBJECT: re: New Markets/Digital divide

TO: Irma L. Martinez (CN=Irma L. Martinez/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
yes

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: lipsen <lipsen@cisco.com> (lipsen <lipsen@cisco.com> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 04:23:00.00

SUBJECT: Re: Digital Divide/Digital Opportunity

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Tom,

I have been out of the office. I am in tomorrow, please call anytime on my
cell phone at (408) 391-6455 or page me at (800) 365-4578.

Laura

At 09:10 AM 03/03/2000 -0500, you wrote:
>(See attached file: 0222dig-divide-frameshortest.doc)(See attached file:
>0223dig-divide-frameSHORTA.doc)(See attached file: connect-com-f21.doc)
>
>Laura:
>
>Is there a time we could talk today?
>
>Tom Kalil
>
>
>
>

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Mary L. Smith (CN=Mary L. Smith/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 22:17:46.00

SUBJECT: Native American part of digital divide tour

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TO: Gigi E. Georges (CN=Gigi E. Georges/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
I am working on a document that would list some deliverables, but everyone has not gotten back to me yet. I should probably be able to get you something tomorrow or Saturday. Thanks, Mary

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
004. email	From: Anthony Haynes To: Natasha Bilimoria Re: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System [Email]
OPD ([Digital Divide...])
OA/Box Number: 250000

FOLDER TITLE:
[03/08/2000 - 03/10/2000]

2019-0203-F
jn692

RESTRICTION CODES

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b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Anthony Haynes <Anthony.Haynes@usda.gov> (Anthony Haynes <Anthony.Haynes@usda.gov> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 17:47:33.00

SUBJECT: Re: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
In case you need it:

Anthony Haynes

(b)(6)

[004]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Betsy.Kim@sba.gov (Betsy.Kim@sba.gov [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 18:53:15.00

SUBJECT: RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - F riday 12 pm

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Natasha -- is there a call in number in case I can't make it in person?

-----Original Message-----
From: Natasha_F._Bilimoria@opd.eop.gov
[mailto:Natasha_F._Bilimoria@opd.eop.gov]
Sent: Thursday, March 09, 2000 10:53 AM
To: harris-seth@dol.gov; klevy@ntia.doc.gov; Andrea_Kane@opd.eop.gov;
esummy@os.dhhs.gov; marianne.smith@ost.dot.gov;
albert.eisenberg@ost.dot.gov; linda.darr@ost.dot.gov;
leon.simpson@ost.dot.gov; norma.krayem@ost.dot.gov;
loretta.stevenson@ost.dot.gov; david_w._beier%ovp@oa.eop.gov;
jim_kohlenberger%ovp@oa.eop.gov; andrew_f._schneider%ovp@oa.eop.gov;
Eric_P._Liu@opd.eop.gov; Mary_L._Smith@opd.eop.gov;
Andrew_J._Mayock@who.eop.gov; Marjorie_Tarmey@who.eop.gov;
Lynn_G._Cutler@who.eop.gov; Rachel_A._Redington@who.eop.gov;
Maria_E._Soto@who.eop.gov; Jennifer_M._Palmieri@who.eop.gov;
Stephanie_A._Cutter@who.eop.gov; Ruby_Shamir@opd.eop.gov;
Michael_J._Brien@cea.eop.gov; Douglas_V._Almond@cea.eop.gov;
Lisa_M._Kountoupes@who.eop.gov; Joshua_J._Ackil@who.eop.gov;
barbara_bostick-hunt@hud.gov; ariel_m._zwang@hud.gov;
cliff.kellogg@do.treas.gov; luechtw@cdfi.treas.gov;
heyman-stephen@dol.gov; grohde@doc.gov; mwarren@doc.gov;
theodore.wartell@sba.gov; betsy.kim@sba.gov; jacquie_m._lawing@hud.gov;
mmatthew@ocdx.usda.gov; prichman@ocdx.usda.gov; camclean@rus.usda.gov;
ahaynes@usda.gov; clyde.williams@usda.gov; jgomperts@cns.gov;
lroberts@ed.gov; Mark_D._Magana@who.eop.gov;
christine_p._pilosi@hud.gov; phyllis_a._love%ovp@oa.eop.gov;
aram_h._kailian%ovp@oa.eop.gov; Irma_L._Martinez@who.eop.gov;
Kris_M_Balderston@who.eop.gov; elizabeth_b._echols%ovp@oa.eop.gov;
ldaly@doc.gov; carole_wacey@ed.gov; julie_kaminkow@ed.gov;
Joel_K._Wiginton@who.eop.gov; glynis.long@sba.gov;
deborah_vincent@hud.gov; jan-m.williams@usda.gov
Cc: Rachael_F._Goldfarb@opd.eop.gov; Gigi_E._Georges@opd.eop.gov;
Thomas_A._Kalil@opd.eop.gov
Subject: THIS IS A TIME CHANGE: Digital Divide interagency meeting -
Friday 12 pm

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Thanks again--we appreciate all of your assistance (and patience).

Rachael F. Goldfarb
03/09/2000 10:11:35 AM

Record Type: Record

To: See the distribution list at the bottom of this message

cc:
Subject: Digital Divide interagency meeting - Friday 12 pm

There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231 Old Executive Office Building. Please confirm your attendance and include full name, dob and social security number. Thanks.

Message Sent
To:_____

harris-seth@dol.gov
klevy@ntia.doc.gov
Andrea Kane/OPD/EOP@EOP
esummy@os.dhhs.gov
marianne.smith@ost.dot.gov @ inet
albert.eisenberg@ost.dot.gov @ inet
Linda.Darr@ost.dot.gov @ inet
Leon.Simpson@ost.dot.gov @ inet
norma.krayem@ost.dot.gov @ inet
loretta.stevenson@ost.dot.gov
David W. Beier/OVP@OVP
Jim Kohlenberger/OVP@OVP
Andrew F. Schneider/OVP@OVP
Eric P. Liu/OPD/EOP@EOP
Mary L. Smith/OPD/EOP@EOP

Andrew J. Mayock/WHO/EOP@EOP
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Lynn G. Cutler/WHO/EOP@EOP
Rachel A. Redington/WHO/EOP@EOP
Maria E. Soto/WHO/EOP@EOP
Jennifer M. Palmieri/WHO/EOP@EOP
Stephanie A. Cutter/WHO/EOP@EOP
Ruby Shamir/OPD/EOP@EOP
Michael J. Brien/CEA/EOP@EOP
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Joshua J. Ackil/WHO/EOP@EOP
Barbara_Bostick-Hunt@HUD.GOV @ inet
Ariel_M._Zwang@HUD.GOV @ inet
cliff.kellogg@do.treas.gov @ inet
LuechtW@cdfi.treas.gov
heyman-stephen@dol.gov
harris-seth@dol.gov
grohde@doc.gov @ inet
mwarren@doc.gov @ inet
theodore.wartell@sba.gov @ inet
betsy.kim@sba.gov @ inet
Jacquie_M._Lawing@hud.gov @ inet
mmatthew@ocdx.usda.gov @ inet
prichman@ocdx.usda.gov @ inet
Camclean@rus.usda.gov @ inet
Ahaynes@usda.gov @ inet
clyde.williams@usda.gov @ inet
Jgomperts@cns.gov @ inet
lroberts@ed.gov @ inet
Mark D. Magana/WHO/EOP@EOP
Christine_P._Pilosi@hud.gov
Phyllis A. Love/OVP@OVP
Aram H. Kailian/OVP@OVP
Irma L. Martinez/WHO/EOP@EOP
Kris M Balderston/WHO/EOP@EOP
Elizabeth B. Echols/OVP@OVP
ldaly@doc.gov
carole_wacey@ed.gov
julie_kaminkow@ed.gov
Andrea Kane/OPD/EOP@EOP
Joel K. Wiginton/WHO/EOP@EOP
glynis.long@sba.gov
deborah_vincent@hud.gov
jan-m.williams@usda.gov

- att1.htm========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN">
<HTML>
<HEAD>
<META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=iso-8859-1">
<META NAME="Generator" CONTENT="MS Exchange Server version 5.5.2651.67">
<TITLE>RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 1
2 pm</TITLE>
</HEAD>
<BODY>

<P><FONT SIZE=2>Natasha -- is there a call in number in case I can't make it in
person?</FONT>
</P>

<P><FONT SIZE=2>-----Original Message-----</FONT>

<FONT SIZE=2>From: Natasha_F._Bilimoria@opd.eop.gov</FONT>

<FONT SIZE=2>[<A HREF="mailto:Natasha_F._Bilimoria@opd.eop.gov">mailto:Nata
sha_F._Bilimoria@opd.eop.gov</A>]</FONT>

<FONT SIZE=2>Sent: Thursday, March 09, 2000 10:53 AM</FONT>

<FONT SIZE=2>To: harris-seth@dol.gov; klevy@ntia.doc.gov; Andrea_Kane@opd.e
op.gov;</FONT>

<FONT SIZE=2>esummy@os.dhhs.gov; marianne.smith@ost.dot.gov;</FONT>

<FONT SIZE=2>albert.eisenberg@ost.dot.gov; linda.darr@ost.dot.gov;</FONT>

<FONT SIZE=2>leon.simpson@ost.dot.gov; norma.krayem@ost.dot.gov;</FONT>

<FONT SIZE=2>loretta.stevenson@ost.dot.gov; david_w._beier%ovp@oa.eop.gov;<
/FONT>

<FONT SIZE=2>jim_kohlenberger%ovp@oa.eop.gov; andrew_f._schneider%ovp@oa.eo
p.gov;</FONT>

<FONT SIZE=2>Eric_P._Liu@opd.eop.gov; Mary_L._Smith@opd.eop.gov;</FONT>

<FONT SIZE=2>Andrew_J._Mayock@who.eop.gov; Marjorie_Tarmey@who.eop.gov;</FO
NT>

<FONT SIZE=2>Lynn_G._Cutler@who.eop.gov; Rachel_A._Redington@who.eop.gov;</
FONT>

<FONT SIZE=2>Maria_E._Soto@who.eop.gov; Jennifer_M._Palmieri@who.eop.gov;</
FONT>

<FONT SIZE=2>Stephanie_A._Cutter@who.eop.gov; Ruby_Shamir@opd.eop.gov;</FON
T>

<FONT SIZE=2>Michael_J._Brien@cea.eop.gov; Douglas_V._Almond@cea.eop.gov;</
FONT>

<FONT SIZE=2>Lisa_M._Kountoupes@who.eop.gov; Joshua_J._Ackil@who.eop.gov;</
FONT>

<FONT SIZE=2>barbara_bostick-hunt@hud.gov; ariel_m._zwang@hud.gov;</FONT>

<FONT SIZE=2>cliff.kellogg@do.treas.gov; luechtw@cdfi.treas.gov;</FONT>

<FONT SIZE=2>heyman-stephen@dol.gov; grohde@doc.gov; mwarren@doc.gov;</FONT
>

<FONT SIZE=2>theodore.wartell@sba.gov; betsy.kim@sba.gov; jacquie_m._lawing
@hud.gov;</FONT>

<FONT SIZE=2>mmatthew@ocdx.usda.gov; prichman@ocdx.usda.gov; camclean@rus.u
sda.gov;</FONT>

<FONT SIZE=2>ahaynes@usda.gov; clyde.williams@usda.gov; jgomperts@cns.gov;<
/FONT>

<FONT SIZE=2>lroberts@ed.gov; Mark_D._Magana@who.eop.gov;</FONT>

<FONT SIZE=2>christine_p._pilosi@hud.gov; phyllis_a._love%ovp@oa.eop.gov;</

FONT>

<FONT SIZE=2>aram_h._kailian%ovp@oa.eop.gov; Irma_L._Martinez@who.eop.gov;<
/FONT>

<FONT SIZE=2>Kris_M_Balderston@who.eop.gov; elizabeth_b._echols%ovp@oa.eop.
gov;</FONT>

<FONT SIZE=2>ldaly@doc.gov; carole_wacey@ed.gov; julie_kaminkow@ed.gov;</FO
NT>

<FONT SIZE=2>Joel_K._Wiginton@who.eop.gov; glynis.long@sba.gov;</FONT>

<FONT SIZE=2>deborah_vincent@hud.gov; jan-m.williams@usda.gov</FONT>

<FONT SIZE=2>Cc: Rachael_F._Goldfarb@opd.eop.gov; Gigi_E._Georges@opd.eop.g
ov;</FONT>

<FONT SIZE=2>Thomas_A._Kalil@opd.eop.gov</FONT>

<FONT SIZE=2>Subject: THIS IS A TIME CHANGE: Digital Divide interagency mee
ting -</FONT>

<FONT SIZE=2>Friday 12 pm</FONT>
</P>

<P><FONT SIZE=2>Just so there is no confusion, at our last meeting we had said
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<FONT SIZE=2>would be at 11am--this has been rescheduled for 12pm on Friday
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<FONT SIZE=2>As the email below states, you should foward your clearance in
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<FONT SIZE=2>Rachael Goldfarb. Couple of issues:</FONT>
</P>

<P><FONT SIZE=2> Call to Action: We apologize for not sending
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<P><FONT SIZE=2> Commitment/Deliverable Ideas: Please email m
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<FONT SIZE=2> ideas by 12pm tomorrow and also bring a hard copy
to the meeting.</FONT>
</P>

<P><FONT SIZE=2>Thanks again--we appreciate all of your assistance (and patienc
e).</FONT>
</P>

<P><FONT SIZE=2>Rachael F. Goldfarb</FONT>

<FONT SIZE=2>03/09/2000 10:11:35 AM</FONT>
</P>

<P><FONT SIZE=2>Record Type: Record</FONT>

</P>

<P><FONT SIZE=2>To: See the distribution list at the bottom of this
message</FONT>
</P>

<P><FONT SIZE=2>cc:</FONT>

<FONT SIZE=2>Subject: Digital Divide interagency meeting - Friday 12
pm</FONT>
</P>

<P><FONT SIZE=2>There will be a digital divide meeting Friday (3/10) at 12 pm -
Room 231</FONT>

<FONT SIZE=2>Old Executive Office Building. Please confirm your attendance
and include</FONT>

<FONT SIZE=2>full name, dob and social security number. Thanks.</FONT>
</P>

<P><FONT SIZE=2>Message Sent</FONT>

<FONT SIZE=2> To:_____
_____</FONT>
</P>

<P><FONT SIZE=2> harris-s
eth@dol.gov</FONT>

<FONT SIZE=2> klevy@n
tia.doc.gov</FONT>

<FONT SIZE=2> Andrea
Kane/OPD/EOP@EOP</FONT>

<FONT SIZE=2> esummy@
os.dhhs.gov</FONT>

<FONT SIZE=2> mariann
e.smith@ost.dot.gov @ inet</FONT>

<FONT SIZE=2> albert.
eisenberg@ost.dot.gov @ inet</FONT>

<FONT SIZE=2> Linda.D
arr@ost.dot.gov @ inet</FONT>

<FONT SIZE=2> Leon.Si
mpson@ost.dot.gov @ inet</FONT>

<FONT SIZE=2> norma.k
rayem@ost.dot.gov @ inet</FONT>

<FONT SIZE=2> loretta
.stevenson@ost.dot.gov</FONT>

<FONT SIZE=2> David W
. Beier/OVP@OVP</FONT>

<FONT SIZE=2> Jim Koh
lenberger/OVP@OVP</FONT>

<FONT SIZE=2> Andrew
F. Schneider/OVP@OVP</FONT>

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<FONT SIZE=2> Lisa M. Kountoupes/WHO/EOP@EOP</FONT>

<FONT SIZE=2> Joshua J. Ackil/WHO/EOP@EOP</FONT>

<FONT SIZE=2> Barbara _Bostick-Hunt@HUD.GOV @ inet</FONT>

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<FONT SIZE=2> harris-seth@dol.gov</FONT>

<FONT SIZE=2> grohde@doc.gov @ inet</FONT>

<FONT SIZE=2> mwarren@doc.gov @ inet</FONT>

<FONT SIZE=2> theodore.wartell@sba.gov @ inet</FONT>

<FONT SIZE=2> betsy.kim@sba.gov @ inet</FONT>

<FONT SIZE=2> Jacquie _M._Lawing@hud.gov @ inet</FONT>

<FONT SIZE=2> mmatthew@ocdx.usda.gov @ inet</FONT>

<FONT SIZE=2> prichman@ocdx.usda.gov @ inet</FONT>

<FONT SIZE=2> Camclea
n@rus.usda.gov @ inet</FONT>

<FONT SIZE=2> Ahaynes
@usda.gov @ inet</FONT>

<FONT SIZE=2> clyde.w
illiams@usda.gov @ inet</FONT>

<FONT SIZE=2> Jgomper
ts@cns.gov @ inet</FONT>

<FONT SIZE=2> lrobert
s@ed.gov @ inet</FONT>

<FONT SIZE=2> Mark D.
Magana/WHO/EOP@EOP</FONT>

<FONT SIZE=2> Christi
ne_P._Pilosi@hud.gov</FONT>

<FONT SIZE=2> Phyllis
A. Love/OVP@OVP</FONT>

<FONT SIZE=2> Aram H.
Kailian/OVP@OVP</FONT>

<FONT SIZE=2> Irma L.
Martinez/WHO/EOP@EOP</FONT>

<FONT SIZE=2> Kris M
Balderston/WHO/EOP@EOP</FONT>

<FONT SIZE=2> Elizabe
th B. Echols/OVP@OVP</FONT>

<FONT SIZE=2> ldaly@d
oc.gov</FONT>

<FONT SIZE=2> carole_
wacey@ed.gov</FONT>

<FONT SIZE=2> julie_k
aminkow@ed.gov</FONT>

<FONT SIZE=2> Andrea
Kane/OPD/EOP@EOP</FONT>

<FONT SIZE=2> Joel K.
Wiginton/WHO/EOP@EOP</FONT>

<FONT SIZE=2> glynis.
long@sba.gov</FONT>

<FONT SIZE=2> deborah
_vincent@hud.gov</FONT>

<FONT SIZE=2> jan-m.w
illiams@usda.gov</FONT>
</P>

</BODY>
</HTML>

========== END ATTACHMENT 1 ==========

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 14:20:15.00

SUBJECT: RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - F riday 12 pm

TO: Paul Richman <prichman@ocdx.usda.gov> (Paul Richman <prichman@ocdx.usda.gov> [UNKNOWN])
READ:UNKNOWN

TEXT:
Let me know if you want to attend and i'd be happy to call Jan--just need
a number. thanks.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME: 9-MAR-2000 16:18:24.00

SUBJECT: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm

TO: hbiden@doc.gov (hbiden@doc.gov @ inet [UNKNOWN])
READ:UNKNOWN

CC: Rachael F. Goldfarb (CN=Rachael F. Goldfarb/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
I apologize--your address was inadvertantly not on our list. Hope to see you tomorrow. Please send your clearance information to Rachael Goldfarb.

thanks.
---------- Forwarded by Natasha F. Bilimoria/OPD/EOP on 03/09/2000 04:16 PM ----------

Natasha F. Bilimoria
03/09/2000 10:52:53 AM
Record Type: Record

To: See the distribution list at the bottom of this message
cc: Rachael F. Goldfarb/OPD/EOP@EOP, Gigi E. Georges/OPD/EOP@EOP, Thomas A. Kalil/OPD/EOP@EOP
bcc: Records Management@EOP
Subject: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm

Just so there is no confusion, at our last meeting we had said this meeting would be at 11am--this has been rescheduled for 12pm on Friday (tomorrow). As the email below states, you should foward your clearance information to Rachael Goldfarb. Couple of issues:

Call to Action: We apologize for not sending this out as of yet. We hope to have it for you tomorrow at our meeting.

Commitment/Deliverable Ideas: Please email me your deliverable and site ideas by 12pm tomorrow and also bring a hard copy to the meeting.

Thanks again--we appreciate all of your assistance (and patience).

Rachael F. Goldfarb
03/09/2000 10:11:35 AM
Record Type: Record

To: See the distribution list at the bottom of this message
cc:
Subject: Digital Divide interagency meeting - Friday 12 pm

There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231 Old Executive Office Building. Please confirm your attendance and include full name, dob and social security number. Thanks.

Message Sent
To:
harris-seth@dol.gov
klevy@ntia.doc.gov
Andrea Kane/OPD/EOP@EOP
esummy@os.dhhs.gov
marianne.smith@ost.dot.gov @ inet
albert.eisenberg@ost.dot.gov @ inet
Linda.Darr@ost.dot.gov @ inet
Leon.Simpson@ost.dot.gov @ inet
norma.krayem@ost.dot.gov @ inet
loretta.stevenson@ost.dot.gov
David W. Beier/OVP@OVP
Jim Kohlenberger/OVP@OVP
Andrew F. Schneider/OVP@OVP
Eric P. Liu/OPD/EOP@EOP
Mary L. Smith/OPD/EOP@EOP
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Marjorie Tarmey/WHO/EOP@EOP
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Aram H. Kailian/OVP@OVP
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julie_kaminkow@ed.gov
Andrea Kane/OPD/EOP@EOP
Joel K. Wiginton/WHO/EOP@EOP
glynis.long@sba.gov
deborah_vincent@hud.gov
jan-m.williams@usda.gov

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To:_____
harris-seth@dol.gov
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david w. beier/ovp@ovp
jim kohlenberger/ovp@ovp
andrew f. schneider/ovp@ovp
eric p. liu/opd/eop@eop
mary l. smith/opd/eop@eop
andrew j. mayock/who/eop@eop
marjorie tarmey/who/eop@eop
lynn g. cutler/who/eop@eop
rachel a. redington/who/eop@eop
maria e. soto/who/eop@eop
jennifer m. palmieri/who/eop@eop
stephanie a. cutter/who/eop@eop
ruby shamir/opd/eop@eop
michael j. brien/cea/eop@eop

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mark d. magana/who/eop@eop
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phyllis a. love/ovp@ovp
aram h. kailian/ovp@ovp
irma l. martinez/who/eop@eop
kris m balderston/who/eop@eop
elizabeth b. echols/ovp@ovp
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joel k. wiginton/who/eop@eop
glynis.long@sba.gov
deborah_vincent@hud.gov
jan-m.williams@usda.gov

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: David Stevens <david.stevens@edventions.com> (David Stevens <david.stevens@edventions.com> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 17:21:54.00

SUBJECT: RE: digital divide

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

CC: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP [OSTP])
READ:UNKNOWN

CC: Linda_Roberts@ed.gov (Linda_Roberts@ed.gov [UNKNOWN])
READ:UNKNOWN

TEXT:
Tom,

Jeff Smith told me that he passed along an email I sent him regarding the amazing story of Williams Elementary in Chicago. As I mentioned to you when
I dropped by your office, I am working at a start-up educational-technology company that is working with the Chicago Public Schools as part of our Pilot
program. If Illinois is being considered for the President's upcoming Digital Divide tour, Williams would make a striking message about how e-rate
is improving the lives of not only students in disadvantaged schools, but transforming the community as well.

One of the key themes that the President could highlight through a visit to the Williams Chicago Public School is that many of the efforts and innovations that have made Williams a success have come from the efforts of small businesses, unique local partnerships and community involvement. That
is to say, progress is made not just through the intervention (largess) of big corporations (e.g. Microsoft, AOL, IBM, Intel) but also through the combined efforts of smaller companies, community service agencies and local colleges. While big companies are doing great things in donating computers and equipment, there are still needs that can be better accomplished at the community level.

An even more important point to be made is that the Federal Government's e-rate program was the catalyst that triggered this local effort. Without federal support, it is highly unlikely (impossible) to imagine that Williams
would have the kind of recourses they now have.

Attached is a sheet of other Key Themes I have put together about the

Digital Divide and the Chicago Public Schools. Please let me know if I can be of any further assistance.

David Stevens
Director, Strategic Partnerships
Edventions, Inc.
direct - 312-207-6768
cellular - 773-991-3283
email - david.stevens@edventions.com
- Key Themes.doc========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D44]ARMS20356557I.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

Key Themes/ Talking Points

Geography-
Chicago has created a great environment for high tech entrepreneurs – Silicon Valley does not have a lock on all the great internet ideas or talent! The story of the internet is being written on the Silicon Prairie as well. Chicago schools are moving ahead in incorporating technology and the internet into the classroom. All Chicago Public Schools are now wired to the internet and teachers are using online lessons, all mapped to state and national learning standards. Technology breaks down geographic and economic barriers. All children deserve the best and that's what we're delivering to them. Chicago is ahead of other cities and suburbs nationally.

Industry-
Small businesses are playing a key role in the development of educational technology, not just the big guys (Microsoft, AOL, IBM, Intel). While big companies are doing great things in donating computers and equipment, there are still needs that can be better accomplished at the community level.

Technology and Community-
Technology can be used to strengthen our communities. With systems like Starship School, parents can get involved in their children's education. Teachers can use new tools from Edventions and have more time to teach. Children can learn the skills required for success in the information age. Technology can put schools at the center of our communities.

Innovation
Edventions is an example of how private sector competition and rapid technological progress can create the motivation to bridge the digital divide. The Starship Creator is one of the most effective applications ever developed for enabling teachers to bring technology into the classroom without sacrificing educational value. The Starship school is not just a "bells and whistles" technology for schools. It is the bridge between technology, teachers and learning.

Teacher Focused Design
The Starship School concept is completely focused around making technology useful for teachers. The design philosophy behind Starship Creator was the it should be "as easy to use as an ATM." Teachers with no prior knowledge of computers can begin creating lessons, posting assignments and bulletins with 15 minutes training. It offers teachers real value and enables them to be as productive with a computer as their students.

It takes a Corporate Village
Edventions is not alone in the effort to make technology work for the schools and communities of Chicago. Hewlett-Packard, Cisco, ComDisco, Ameritech and YourNet have all become part of the Starship Team in the Chicago area. Through innovative programs these companies have contributed to the success of the Pilot 2000 program a success inside and outside the classroom.

Breaking the Cycle of Poverty and Hopelessness
Williams Elementary is in the heart of Chicago's most troubled housing projects. With a 100% African American community and 97% of the students living below the poverty line, the children of this community have few advantages in life. Starship School offers them a glimpse of the world beyond crime and daily difficulties in the projects. School leaders, led by Principal White and technology chief Dr. Frank are passionate about providing internet access and safety to help their students learn. And Edventions' Starship School service provides software, tools, training and support to make it all happen.

Corporate Responsibility

Beyond including underprivileged schools in the Starship Pilot, Edventions has engaged Homeboyz Interactive, a website design, training and job placement ministry in Milwaukee, to design a hot look for the Starship website. Edventions' CEO, Lois Scott first became aware of Homeboyz while serving as a White House Fellow when she met Father Greg Boyle, S.J. By supporting the life-changing ministry of Homeboyz Interactive, Edventions is able to extend its reach as a positive member of the corporate community in the Midwest.

Refocusing the Community around the School

One of the "externalities" of incorporating networking technology in schools is the powerful role it can play to reintroduce the school as the center of a community. Chicago Public Schools, like Williams, are able to extend the reach of technological advantages into the community through innovative technologies like the Starship School,. Many of the families whose children attend Williams are terribly impoverished. Not only are computers a rarity - perhaps 2% have home internet access - phones are a luxury. In areas such as these, a progressive internet strategy, like the Starship, acts as a catalyst to bringing the web not only to the students, but the parents as well.

Training Teachers to Maximize the Benefit of Technology

Imagine what it would feel like to receive a phone call from Microsoft asking how everything was going with Word? Or if someone magically backed up your computer every night so that you'd never lose a document again. Or someone stopped by your workplace to train you in creating that presentation slide exactly the way you'd wanted. How loyal would you feel to that company? That is the standard of service that Edventions has set for Starship School. **One hundred percent of teachers are trained at their school**, our help desk makes, as well as receives calls, all administrative data is backed up remotely each night and system enhancements are delivered over the net without the school doing anything. Most other education services don't even have a help desk. Service is the hallmark of Starship School. This is the kind of innovation from the private sector that will make technology work in schools.

Commercializing Kids

Recent coverage in the media of ZapMe! Corp. brought to the forefront a disturbing trend in education today – the commercialization of our classrooms. Cash-strapped schools are turning more and more frequently to corporations to meet their needs in light of harsh budget cuts and lack of funds, allowing those companies to advertise directly to children in schools.

- Edventions, Inc. is determined to keep commercialism out of the classroom and has taken extraordinary measures to provide a safe learning environment for all Starship School members.
- Edventions prohibits advertising or other commercialization of children on all Starship School computer screens designed for educational use in the classroom. Educational content provided by teachers and others will be acknowledged, with credit to the content provider or sponsor. However, no click throughs or call for action will be associated with that credit. With permission of the parent, a child may view pages offering entertainment for children. Such pages may contain advertising appropriate for children. Parents can give or revoke permission to view these pages at any time. Advertising and e-commerce opportunities will be offered to the adult community of Starship School.

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
005. email	From: Paul Richman To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System [Email]
OPD ([Digital Divide...])
OA/Box Number: 250000

FOLDER TITLE:
[03/08/2000 - 03/10/2000]

2019-0203-F
jn692

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Paul Richman <prichman@ocdx.usda.gov> (Paul Richman <prichman@ocdx.usda.gov> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 11:16:28.00

SUBJECT: RE: Digital Divide interagency meeting - Friday 12 pm

TO: Rachael F. Goldfarb (CN=Rachael F. Goldfarb/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
I will attend.
Paul J. Richman

(b)(6)

[005]

-----Original Message-----
From: Rachael_F._Goldfarb@opd.eop.gov
[mailto:Rachael_F._Goldfarb@opd.eop.gov]
Sent: Thursday, March 09, 2000 10:12 AM
To: harris-seth@dol.gov; klevy@ntia.doc.gov; Andrea_Kane@opd.eop.gov;
esummy@os.dhhs.gov; marianne.smith@ost.dot.gov;
albert.eisenberg@ost.dot.gov; Linda.Darr@ost.dot.gov;
Leon.Simpson@ost.dot.gov; norma.krayem@ost.dot.gov;
loretta.stevenson@ost.dot.gov; David_W._Beier%OVP@oa.eop.gov;
Jim_Kohlenberger%OVP@oa.eop.gov; Andrew_F._Schneider%OVP@oa.eop.gov;
Eric_P._Liu@opd.eop.gov; Mary_L._Smith@opd.eop.gov;
Andrew_J._Mayock@who.eop.gov; Marjorie_Tarmey@who.eop.gov;
Lynn_G._Cutler@who.eop.gov; Rachel_A._Redington@who.eop.gov;
Maria_E._Soto@who.eop.gov; Jennifer_M._Palmieri@who.eop.gov;
Stephanie_A._Cutter@who.eop.gov; Ruby_Shamir@opd.eop.gov;
Michael_J._Brien@cea.eop.gov; Douglas_V._Almond@cea.eop.gov;
Lisa_M._Kountoupes@who.eop.gov; Joshua_J._Ackil@who.eop.gov;
Barbara_Bostick-Hunt@HUD.GOV; Ariel_M._Zwang@HUD.GOV;
cliff.kellogg@do.treas.gov; LuechtW@cdfi.treas.gov;
heyman-stephen@dol.gov; harris-seth@dol.gov; grohde@doc.gov;
mwarren@doc.gov; theodore.wartell@sba.gov; betsy.kim@sba.gov;
Jacquie_M._Lawing@hud.gov; mmatthew@ocdx.usda.gov;
prichman@ocdx.usda.gov; Camclean@rus.usda.gov; Ahaynes@usda.gov;
clyde.williams@usda.gov; Jgomperts@cns.gov; lroberts@ed.gov;
Mark_D._Magana@who.eop.gov; Christine_P._Pilosi@hud.gov;
Phyllis_A._Love%OVP@oa.eop.gov; Aram_H._Kailian%OVP@oa.eop.gov;
Irma_L._Martinez@who.eop.gov; Kris_M_Balderston@who.eop.gov;
Elizabeth_B._Echols%OVP@oa.eop.gov; ldaly@doc.gov; carole_wacey@ed.gov;
julie_kaminkow@ed.gov; Andrea_Kane@opd.eop.gov;
Joel_K._Wiginton@who.eop.gov; glynis.long@sba.gov;
deborah_vincent@hud.gov; jan-m.williams@usda.gov
Subject: Digital Divide interagency meeting - Friday 12 pm

There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231

Old Executive Office Building. Please confirm your attendance and include full name, dob and social security number. Thanks.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Paul Richman <prichman@ocdx.usda.gov> (Paul Richman <prichman@ocdx.usda.gov> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 16:26:48.00

SUBJECT: RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - F riday 12 pm

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
id like to, especially, if i am going to come over and help out again as we get closer to the trip. He works in the UnderSecretary's office so he can be reached at 720-4581. Thanks.

-----Original Message-----
From: Natasha_F._Bilimoria@opd.eop.gov
[mailto:Natasha_F._Bilimoria@opd.eop.gov]
Sent: Thursday, March 09, 2000 2:20 PM
To: Paul Richman
Subject: RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - F riday 12 pm

Let me know if you want to attend and i'd be happy to call Jan--just need a number. thanks.

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
006. email	From: Julie Kaminkow To: Rachael Goldfarb Re: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (1 page)	03/09/2000	b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System [Email]
OPD ([Digital Divide...])
OA/Box Number: 250000

FOLDER TITLE:
[03/08/2000 - 03/10/2000]

2019-0203-F
jn692

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: "Kaminkow, Julie" <Julie_Kaminkow@ed.gov> ("Kaminkow, Julie" <Julie_Kaminkow@ed.gov> [UNKNOWN])

CREATION DATE/TIME: 9-MAR-2000 15:35:42.00

SUBJECT: RE: Digital Divide interagency meeting - Friday 12 pm

TO: Rachael F. Goldfarb (CN=Rachael F. Goldfarb/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
I will be the Ed rep.

Julie Kaminkow

(b)(6)

[006]

> -----Original Message-----
> From: Rachael_F._Goldfarb@opd.eop.gov
> [SMTP:Rachael_F._Goldfarb@opd.eop.gov]
> Sent: Thursday, March 09, 2000 10:12 AM
> To: harris-seth@dol.gov; klevy@ntia.doc.gov;
Andrea_Kane@opd.eop.gov;
> esummy@os.dhhs.gov; marianne.smith@ost.dot.gov;
> albert.eisenberg@ost.dot.gov; Linda.Darr@ost.dot.gov;
> Leon.Simpson@ost.dot.gov; norma.krayem@ost.dot.gov;
> loretta.stevenson@ost.dot.gov; David_W._Beier%OVP@oa.eop.gov;
> Jim_Kohlenberger%OVP@oa.eop.gov; Andrew_F._Schneider%OVP@oa.eop.gov;
> Eric_P._Liu@opd.eop.gov; Mary_L._Smith@opd.eop.gov;
> Andrew_J._Mayock@who.eop.gov; Marjorie_Tarmey@who.eop.gov;
> Lynn_G._Cutler@who.eop.gov; Rachel_A._Redington@who.eop.gov;
> Maria_E._Soto@who.eop.gov; Jennifer_M._Palmieri@who.eop.gov;
> Stephanie_A._Cutter@who.eop.gov; Ruby_Shamir@opd.eop.gov;
> Michael_J._Brien@cea.eop.gov; Douglas_V._Almond@cea.eop.gov;
> Lisa_M._Kountoupes@who.eop.gov; Joshua_J._Ackil@who.eop.gov;
> Barbara_Bostick-Hunt@HUD.GOV; Ariel_M._Zwang@HUD.GOV;
> cliff.kellogg@do.treas.gov; LuechtW@cdfi.treas.gov;
> heyman-stephen@dol.gov; harris-seth@dol.gov; grohde@doc.gov;
> mwarren@doc.gov; theodore.wartell@sba.gov; betsy.kim@sba.gov;
> Jacquie_M._Lawing@hud.gov; mmatthew@ocdx.usda.gov;
prichman@ocdx.usda.gov;
> Camclean@rus.usda.gov; Ahaynes@usda.gov; clyde.williams@usda.gov;
> Jgomperts@cns.gov; lroberts@ed.gov; Mark_D._Magana@who.eop.gov;
> Christine_P._Pilosi@hud.gov; Phyllis_A._Love%OVP@oa.eop.gov;
> Aram_H._Kailian%OVP@oa.eop.gov; Irma_L._Martinez@who.eop.gov;
> Kris_M_Balderston@who.eop.gov; Elizabeth_B._Echols%OVP@oa.eop.gov;
> ldaly@doc.gov; carole_wacey@ed.gov; julie_kaminkow@ed.gov;
> Andrea_Kane@opd.eop.gov; Joel_K._Wiginton@who.eop.gov;
> glynis.long@sba.gov; deborah_vincent@hud.gov; jan-m.williams@usda.gov
> Subject: Digital Divide interagency meeting - Friday 12 pm

>
> There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231
> Old Executive Office Building. Please confirm your attendance and include
> full name, dob and social security number. Thanks.
>

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
007. email	From: John Gomperts To: Natasha Bilimoria Re: THIS IS A TIME CHANGE: Digital Divide interagency meeting - Friday 12 pm [Personally Identifiable Information] [partial] (2 pages)	03/10/2000	b(6)

COLLECTION:
Clinton Presidential Records
Automated Records Management System [Email]
OPD ([Digital Divide...])
OA/Box Number: 250000

FOLDER TITLE:
[03/08/2000 - 03/10/2000]

2019-0203-F
jn692

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
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b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
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b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: "Gomperts, John" <jgomperts@cns.gov> ("Gomperts, John" <jgomperts@cns.gov> [UNKNOWN])

CREATION DATE/TIME:10-MAR-2000 10:59:04.00

SUBJECT: RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - F riday 12 pm

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Looks like I got this message by mistake. JG

Please clear the following persons:

Albert C. Eisenberg

(b)(6)

[007]

Linda Darr

(b)(6)

-----Original Message-----
From: Gomperts, John [mailto:jgomperts@cns.gov]
Sent: Thursday, March 09, 2000 6:13 PM
To: 'Rachael_F._Goldfarb@opd.eop.gov'; harris-seth@dol.gov;
klevy@ntia.doc.gov; Andrea_Kane@opd.eop.gov; esummy@os.dhhs.gov; Smith,
Marianne <OST>; Eisenberg, Albert <OST>; Darr, Linda <OST>; Simpson,
Leon <OST>; Krayem, Norma <OST>; Stevenson, Loretta <OST>;
David_W._Beier%OVP@oa.eop.gov; Jim_Kohlenberger%OVP@oa.eop.gov;
Andrew_F._Schneider%OVP@oa.eop.gov; Eric_P._Liu@opd.eop.gov;
Mary_L._Smith@opd.eop.gov; Andrew_J._Mayock@who.eop.gov;
Marjorie_Tarmey@who.eop.gov; Lynn_G._Cutler@who.eop.gov;
Rachel_A._Redington@who.eop.gov; Maria_E._Soto@who.eop.gov;
Jennifer_M._Palmieri@who.eop.gov; Stephanie_A._Cutter@who.eop.gov;
Ruby_Shamir@opd.eop.gov; Michael_J._Brien@cea.eop.gov;
Douglas_V._Almond@cea.eop.gov; Lisa_M._Kountoupes@who.eop.gov;
Joshua_J._Ackil@who.eop.gov; Barbara_Bostick-Hunt@HUD.GOV;
Ariel_M._Zwang@HUD.GOV; cliff.kellogg@do.treas.gov;
LuechtW@cdfi.treas.gov; heyman-stephen@dol.gov; harris-seth@dol.gov;
grohde@doc.gov; mwarren@doc.gov; theodore.wartell@sba.gov;
betsy.kim@sba.gov; Jacquie_M._Lawing@HUD.GOV; mmatthew@ocdx.usda.gov;
prichman@ocdx.usda.gov; Camclean@rus.usda.gov; Ahaynes@usda.gov;
clyde.williams@usda.gov; Gomperts, John; lroberts@ed.gov;
Mark_D._Magana@who.eop.gov; Christine_P._Pilosi@HUD.GOV;
Phyllis_A._Love%OVP@oa.eop.gov; Aram_H._Kailian%OVP@oa.eop.gov;
Irma_L._Martinez@who.eop.gov; Kris_M_Balderston@who.eop.gov;
Elizabeth_B._Echols%OVP@oa.eop.gov; ldaly@doc.gov; carole_wacey@ed.gov;
julie_kaminkow@ed.gov; Andrea_Kane@opd.eop.gov;
Joel_K._Wiginton@who.eop.gov; glynis.long@sba.gov;

deborah_vincent@HUD.GOV; jan-m.williams@usda.gov
Subject: RE: Digital Divide interagency meeting - Friday 12 pm

I will be there --

John Gomperts

(b)(6)

Thanks. JG

> -----Original Message-----
> From: Rachael_F._Goldfarb@opd.eop.gov
> [SMTP:Rachael_F._Goldfarb@opd.eop.gov]
> Sent: Thursday, March 09, 2000 10:12 AM
> To: harris-seth@dol.gov; klevy@ntia.doc.gov;
Andrea_Kane@opd.eop.gov;
> esummy@os.dhhs.gov; marianne.smith@ost.dot.gov;
> albert.eisenberg@ost.dot.gov; Linda.Darr@ost.dot.gov;
> Leon.Simpson@ost.dot.gov; norma.krayem@ost.dot.gov;
> loretta.stevenson@ost.dot.gov; David_W._Beier%OVP@oa.eop.gov;
> Jim_Kohlenberger%OVP@oa.eop.gov; Andrew_F._Schneider%OVP@oa.eop.gov;
> Eric_P._Liu@opd.eop.gov; Mary_L._Smith@opd.eop.gov;
> Andrew_J._Mayock@who.eop.gov; Marjorie_Tarmey@who.eop.gov;
> Lynn_G._Cutler@who.eop.gov; Rachel_A._Redington@who.eop.gov;
> Maria_E._Soto@who.eop.gov; Jennifer_M._Palmieri@who.eop.gov;
> Stephanie_A._Cutter@who.eop.gov; Ruby_Shamir@opd.eop.gov;
> Michael_J._Brien@cea.eop.gov; Douglas_V._Almond@cea.eop.gov;
> Lisa_M._Kountoupes@who.eop.gov; Joshua_J._Ackil@who.eop.gov;
> Barbara_Bostick-Hunt@HUD.GOV; Ariel_M._Zwang@HUD.GOV;
> cliff.kellogg@do.treas.gov; LuechtW@cdfi.treas.gov;
> heyman-stephen@dol.gov; harris-seth@dol.gov; grohde@doc.gov;
> mwarren@doc.gov; theodore.wartell@sba.gov; betsy.kim@sba.gov;
> Jacquie_M._Lawing@HUD.GOV; mmatthew@ocdx.usda.gov;
prichman@ocdx.usda.gov;
> Camclean@rus.usda.gov; Ahaynes@usda.gov; clyde.williams@usda.gov;
> Jgomperts@cns.gov; lroberts@ed.gov; Mark_D._Magana@who.eop.gov;
> Christine_P._Pilosi@HUD.GOV; Phyllis_A._Love%OVP@oa.eop.gov;
> Aram_H._Kailian%OVP@oa.eop.gov; Irma_L._Martinez@who.eop.gov;
> Kris_M_Balderston@who.eop.gov; Elizabeth_B._Echols%OVP@oa.eop.gov;
> ldaly@doc.gov; carole_wacey@ed.gov; julie_kaminkow@ed.gov;
> Andrea_Kane@opd.eop.gov; Joel_K._Wiginton@who.eop.gov;
> glynis.long@sba.gov; deborah_vincent@HUD.GOV; jan-m.williams@usda.gov
> Subject: Digital Divide interagency meeting - Friday 12 pm
>
> There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231
> Old Executive Office Building. Please confirm your attendance and include
> full name, dob and social security number. Thanks.
>

> -----Original Message-----
> From: Natasha_F._Bilimoria@opd.eop.gov
> [SMTP:Natasha_F._Bilimoria@opd.eop.gov]
> Sent: Thursday, March 09, 2000 10:53 AM
> To: harris-seth@dol.gov; klevy@ntia.doc.gov;
Andrea_Kane@opd.eop.gov;
> esummy@os.dhhs.gov; marianne.smith@ost.dot.gov;
> albert.eisenberg@ost.dot.gov; linda.darr@ost.dot.gov;
> leon.simpson@ost.dot.gov; norma.krayem@ost.dot.gov;
> loretta.stevenson@ost.dot.gov; david_w._beier%ovp@oa.eop.gov;
> jim_kohlenberger%ovp@oa.eop.gov; andrew_f._schneider%ovp@oa.eop.gov;
> Eric_P._Liu@opd.eop.gov; Mary_L._Smith@opd.eop.gov;
> Andrew_J._Mayock@who.eop.gov; Marjorie_Tarmey@who.eop.gov;
> Lynn_G._Cutler@who.eop.gov; Rachel_A._Redington@who.eop.gov;
> Maria_E._Soto@who.eop.gov; Jennifer_M._Palmieri@who.eop.gov;
> Stephanie_A._Cutter@who.eop.gov; Ruby_Shamir@opd.eop.gov;
> Michael_J._Brien@cea.eop.gov; Douglas_V._Almond@cea.eop.gov;
> Lisa_M._Kountoupes@who.eop.gov; Joshua_J._Ackil@who.eop.gov;
> barbara_bostick-hunt@hud.gov; ariel_m._zwang@hud.gov;
> cliff.kellogg@do.treas.gov; luechtw@cdfi.treas.gov;
> heyman-stephen@dol.gov; grohde@doc.gov; mwarren@doc.gov;
> theodore.wartell@sba.gov; betsy.kim@sba.gov; jacquie_m._lawing@hud.gov;
> mmatthew@ocdx.usda.gov; prichman@ocdx.usda.gov; camclean@rus.usda.gov;
> ahaynes@usda.gov; clyde.williams@usda.gov; jgomperts@cns.gov;
> lroberts@ed.gov; Mark_D._Magana@who.eop.gov; christine_p._pilosi@hud.gov;
> phyllis_a._love%ovp@oa.eop.gov; aram_h._kailian%ovp@oa.eop.gov;
> Irma_L._Martinez@who.eop.gov; Kris_M_Balderston@who.eop.gov;
> elizabeth_b._echols%ovp@oa.eop.gov; ldaly@doc.gov; carole_wacey@ed.gov;
> julie_kaminkow@ed.gov; Joel_K._Wiginton@who.eop.gov; glynis.long@sba.gov;
> deborah_vincent@hud.gov; jan-m.williams@usda.gov
> Cc: Rachael_F._Goldfarb@opd.eop.gov; Gigi_E._Georges@opd.eop.gov;
> Thomas_A._Kalil@opd.eop.gov
> Subject: THIS IS A TIME CHANGE: Digital Divide interagency
meeting -
> Friday 12 pm
>
> Just so there is no confusion, at our last meeting we had said this
> meeting
> would be at 11am--this has been rescheduled for 12pm on Friday
(tomorrow).
> As the email below states, you should foward your clearance information
to
> Rachael Goldfarb. Couple of issues:
>
> Call to Action: We apologize for not sending this out as of yet. We
> hope to have it for you tomorrow at our meeting.
>
> Commitment/Deliverable Ideas: Please email me your deliverable and
> site
> ideas by 12pm tomorrow and also bring a hard copy to the meeting.
>
> Thanks again--we appreciate all of your assistance (and patience).
>
>

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>
> Rachael F. Goldfarb
> 03/09/2000 10:11:35 AM
>
> Record Type: Record
>
>
> To: See the distribution list at the bottom of this message
>
> cc:
> Subject: Digital Divide interagency meeting - Friday 12 pm
>
> There will be a digital divide meeting Friday (3/10) at 12 pm - Room 231
> Old Executive Office Building. Please confirm your attendance and include
> full name, dob and social security number. Thanks.
>
>
>
>
>
> Message Sent
> To:_____
>
> harris-seth@dol.gov
> klevy@ntia.doc.gov
> Andrea Kane/OPD/EOP@EOP
> esummy@os.dhhs.gov
> marianne.smith@ost.dot.gov @ inet
> albert.eisenberg@ost.dot.gov @ inet
> Linda.Darr@ost.dot.gov @ inet
> Leon.Simpson@ost.dot.gov @ inet
> norma.krayem@ost.dot.gov @ inet
> loretta.stevenson@ost.dot.gov
> David W. Beier/OVP@OVP
> Jim Kohlenberger/OVP@OVP
> Andrew F. Schneider/OVP@OVP
> Eric P. Liu/OPD/EOP@EOP
> Mary L. Smith/OPD/EOP@EOP
> Andrew J. Mayock/WHO/EOP@EOP
> Marjorie Tarmey/WHO/EOP@EOP
> Lynn G. Cutler/WHO/EOP@EOP
> Rachel A. Redington/WHO/EOP@EOP
> Maria E. Soto/WHO/EOP@EOP
> Jennifer M. Palmieri/WHO/EOP@EOP
> Stephanie A. Cutter/WHO/EOP@EOP
> Ruby Shamir/OPD/EOP@EOP
> Michael J. Brien/CEA/EOP@EOP
> Douglas V. Almond/CEA/EOP@EOP
> Lisa M. Kountoupes/WHO/EOP@EOP
> Joshua J. Ackil/WHO/EOP@EOP

> Barbara_Bostick-Hunt@HUD.GOV @ inet
> Ariel_M._Zwang@HUD.GOV @ inet
> cliff.kellogg@do.treas.gov @ inet
> LuechtW@cdfi.treas.gov
> heyman-stephen@dol.gov
> harris-seth@dol.gov
> grohde@doc.gov @ inet
> mwarren@doc.gov @ inet
> theodore.wartell@sba.gov @ inet
> betsy.kim@sba.gov @ inet
> Jacquie_M._Lawing@hud.gov @ inet
> mmatthew@ocdx.usda.gov @ inet
> prichman@ocdx.usda.gov @ inet
> Camclean@rus.usda.gov @ inet
> Ahaynes@usda.gov @ inet
> clyde.williams@usda.gov @ inet
> Jgomperts@cns.gov @ inet
> lroberts@ed.gov @ inet
> Mark D. Magana/WHO/EOP@EOP
> Christine_P._Pilosi@hud.gov
> Phyllis A. Love/OVP@OVP
> Aram H. Kailian/OVP@OVP
> Irma L. Martinez/WHO/EOP@EOP
> Kris M Balderston/WHO/EOP@EOP
> Elizabeth B. Echols/OVP@OVP
> ldaly@doc.gov
> carole_wacey@ed.gov
> julie_kaminkow@ed.gov
> Andrea Kane/OPD/EOP@EOP
> Joel K. Wiginton/WHO/EOP@EOP
> glynis.long@sba.gov
> deborah_vincent@hud.gov
> jan-m.williams@usda.gov
>
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>

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Mary McCain <MMcCain@astd.org> (Mary McCain <MMcCain@astd.org> [UNKNOWN])

CREATION DATE/TIME:10-MAR-2000 14:49:07.00

SUBJECT: Re:Digital Divide to Digital Opportunity

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
Tom,
Thanks for sending this along. I think it's a great idea, as you would guess if you read my 2-page memo to Gene with general comments about the "Digital Divide Digital Opportunity" initiative (I've attached it in case you didn't see - "digital.op").

A couple of points on your proposal:

* I don't think this is a part of the "adult literacy" market as much as it is a still undifferentiated "e-citizen" market. That is, as I understand it (which is minimal), web-based technology makes it possible for people to interact differently with society and their peers, so it also makes possible new "environments" as opposed to "markets". I'm expressing badly a concept that I think the e-business people and new portal developers like Larry Irving for UrbanMagic.com could explain more clearly.
The point being that I think you can secure support from a wide group of sponsors/participants.

* Your goals of "one-on-one" tutors and "ability to support different learning styles" are already available in the technology of "intelligent tutoring systems". I understand that this is still in the improvement stage and also expensive, but clearly the means by which "social software" can work for the low-income, less literate adult.

* Many of the "training supplier" companies already have systems based on web-based "communities of learners" that could provide foundation products for your proposal.

* The "modular" option for customization, update, transferability, etc. is pretty far along. Mike Parmentier in the Office of the Sec. of Defense who manages the ADL initiative knows as much or more about this than anyone.

* I think one of the best parts of your proposal is the emphasis on the importance of fostering "human interaction" as well as delivering information or skills. The more I learn about good software, web-based content, etc. the more it becomes clear that the human interaction part remains critical, and that good products and system enhance the possibilities of that interaction, not diminish it.

* The real difficulty we face with "Industry specific skills training" has to do with assessment and certification more than with the course ware itself. Our Commission is looking into this issue as one of its main focus areas.

* Someone who has done exceptionally good work on the issue of low income families and access to health care is Prof. Bruce Kennedy at Harvard (kennedy@hsph.harvard.edu). I'm sure he'd be glad to talk about your proposals. He is putting together a conference (I don't know when) on the digital divide at Harvard.

Finally, I think the notion that public-private partnerships could generate this type of product is a good one. Most of the members of our commission (which includes a hefty number of business people) expressed some concern about the private sector dominance of content development and promotion.

Let me offer a paper that we commissioned to provide a common platform for the first meeting of our commission (February 10-11). It takes awhile to download and print, but I think you may find it useful. IIf you send me a location, I'll messenger a copy to you.

Regards,
Mary

_____Reply Separator_____
Subject: Digital Divide to Digital Opportunity
Author: Thomas_A._Kalil@opd.eop.gov
Date: 3/10/00 10:48 AM

(See attached file: socialsoftware.doc)

Mary:

I work with Gene on the digital divide issue - I'd be
interested in your reaction to the attached.

- socialsoftware.doc - RFC822.txt - digital.op.doc - Mp5.pdf========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D31]ARMS25013567C.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

========== ATTACHMENT 2 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Received: from MAIL [209.211.100.3] by astd.org (ccMail Link to SMTP R8.50.00.2
1)
; Fri, 10 Mar 2000 10:59:29 -0500
Return-Path: Thomas_A._Kalil@opd.eop.gov
Received: by mail.astd.org from localhost
(router,SLMail V3.2); Fri, 10 Mar 2000 11:00:17 -0500
Received: from eop2.eop.gov [198.137.241.53]
by mail.astd.org [209.211.100.3] (SLmail 3.2.3113) with ESMTP
id 191BF01FF4F711D3A9C2006008C630F0
for <mmccain@astd.org>; Fri, 10 Mar 2000 11:00:07 -0500
Received: from mhub2.eop.gov ([198.137.241.4]) by EOP.GOV (PMDF V5.2-32 #41140)

with ESMTP id <01JMV61FU5K88WW7DS@EOP.GOV> for mmccain@astd.org; Fri,
10 Mar 2000 10:59:25 EST
Received: from lngate3.eop.gov ([165.119.3.232])
by mhub.eop.gov (PMDF V5.2-32 #34437)
with SMTP id <01JMV617U9GM8Y55CT@mhub.eop.gov> for mmccain@astd.org; Fri,
10 Mar 2000 10:59:20 -0500 (EST)
Received: by lngate3.eop.gov(Lotus SMTP MTA SMTP v4.6 (462.2 9-3-1997))
id 8525689E.0057EDD0 ; Fri, 10 Mar 2000 11:00:25 -0500
Date: Fri, 10 Mar 2000 10:48:58 -0500
From: Thomas_A._Kalil@opd.eop.gov
Subject: Digital Divide to Digital Opportunity
To: mmccain@astd.org
Message-id: <8525689E.00516949.00@lngate3.eop.gov>
MIME-version: 1.0
Content-type: multipart/mixed; boundary="Boundary_(ID_CWeQ1GyGB2c9Xsk4UBDhvQ)"

X-Lotus-FromDomain: EOP
X-SLUIDL: 17F69142-F4F711D3-A9C20060-08C630F0
========== END ATTACHMENT 2 ==========

========== ATTACHMENT 3 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
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The following is a HEX DUMP:

========== END ATTACHMENT 3 ==========

========== ATTACHMENT 4 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D31]ARMS20113567F.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 4 ==========

Draft February 19, 2000
Thomas A. Kalil

The Case for "Social Software."

What is "social software?"

I think that it is highly likely that there is a category of software that is under-produced by the marketplace relative to its potential social rate of return. Furthermore, it's possible that some social services for low-income families and communities could be delivered more efficiently and effectively using technology.

For example, I believe that there would be significant social benefits if any adult with a low level of literacy could access software with the following characteristics:

- Affordable even for low-income families
- As effective (or almost as effective) as a one-on-one tutor
- Highly engaging and easy to use
- Available on multiple platforms (e.g. computers, set-top boxes, video-games)
- Widely and effectively marketed and distributed through a variety of channels (employers, video-rental stores, state employment agencies, adult literacy programs, Internet, community technology centers, etc.)
- Able to communicate with users in multiple languages using speech technology
- Able to support different learning styles of adult learners
- Able to support "communities of learners" by allowing Internet-based interaction between instructors, mentors, and other adult learners -- to harness the social dimension of learning
- Built-in assessment
- Easy to update, customize and enhance (e.g. developed in a "modular" way so that it is possible to add new languages that the software can understand)

Although film studios are willing to invest $100 million for a Hollywood blockbuster, and game developers routinely spend $30 million on a Nintendo or Sega game, software publishers are only able to invest a small fraction of this to develop products such as courseware for adult literacy. It's difficult to imagine the current market for adult literacy courseware supporting the kind of investment needed to develop the kind of product described above.

If such a product were developed and widely used, the social returns could be significant. Many

Americans lack the basic literacy skills needed to be successful citizens and workers in the "new economy." The 1994 National Adult Literacy Survey found that 23-27 million adults performed at or below the fifth-grade level in reading and math. Adults who function at the lowest levels of literacy tend to live in poverty, drop out of school, and, if employed, have low-paying jobs. Poor literacy skills affect not only these adults, but their children as well; numerous studies have shown that the educational level of the parent, is one of the most influential factor in children's success in school. Adults that are struggling to balance the competing demands of work and family often find it difficult to complete classroom-based adult literacy programs

Moreover, software and digital content has marginal costs that are essentially zero. This is a very different cost structure from the way in which social services (such as classroom-based adult literacy) are currently delivered. Costs rise in direct proportion to the number of people being served.

I obviously don't mean to limit the definition of "social software" to traditional shrink-wrapped software or multimedia CD-ROMs. It could also be Web-based content and applications, databases, or networked information systems. Social software may also be designed not just to deliver information, but to foster human interaction. Social software will also not eliminate the need for face-to-face interaction. The experience of the Department of Labor is that their Web-based services (America's Job Bank, etc.) allow many people who are looking for work to engage in "self-service." Others still need or want to talk to a human being for some or all of the job search and job counseling services that are provided. However, their Web-based services allow them to serve many more people that they could reach through face-to-face interaction.

Issues for further exploration

I think that the concept of "social software" raises a number of important questions that need to be explored — not only through public debate and discussion, but also through pilot projects and other forms of experimentation. Below are a few:

1. *What are some other plausible examples of social software?*

In the context of President Clinton's digital divide initiative, the Administration is interested in applications that could help empower low-income families and communities, and enable them to improve their quality of life. Possible examples include:

Entrepreneurial training: Courseware that would help at-risk youth or low-income adults gain the necessary business and entrepreneurial skills needed to become self-employed or start micro-enterprises. Youth entrepreneur programs have motivated many students to learn math and other academic subjects because they immediately see their real-world relevance.

Industry-specific skills training: Courseware that would help low-income workers acquire the skills needed for jobs in specific industries, and make the transition from welfare-to-work.

Public health information systems: Information systems that help address the health challenges faced by low-income communities. For example, public health information systems can help

increase the rates of childhood immunization rates in inner cities by generating automatic reminder notices to parents and doctors, and allowing principals to manage school-based immunization programs.

2. *What kind of public-private partnerships would lead to the increased creation, marketing and use of social software?*

Obviously, it should not be assumed that government intervention in the marketplace is needed to stimulate the development of "social software." In many instances, existing commercial software can be used as is or customized to meet the needs of schools, non-profits, government agencies, low-income communities. For example, many volunteer organizations are now running K-12 digital reference services that match students and teachers with questions with experts that can provide answers (e.g. Ask A Scientist, Ask Dr. Math). A company that makes "customer relationship management" software used by Fortune 500 companies is working with many of these "Ask A" services to help them handle the flood of e-mails that they are receiving.

But if it is clear that current marketplace arrangements are not producing high-quality software and content that could address the needs of low-income families -- government, industry, and non-profits should explore a number of different approaches to stimulating its development and use.

To stimulate discussion, let me describe one possible scenario building on the adult literacy example:

- Experts in adult literacy (academic researchers, practitioners) and software developers meet to define the desirable characteristics of high-quality adult literacy software

- Various parties with an interest in the development of adult literacy courseware (federal and state government agencies, employers, foundations, etc.) pool their purchasing power and issue a joint "request for proposal."

- One or more companies (or alliances between companies, universities, and non-profits) are chosen (via a competitive, merit-based process) to develop the courseware.

- As a condition of the contract - the software and content are developed under an "open source" license. This allows many companies to distribute and market the product at a low price — since the basic development costs have already been paid for. "Open source" software is software that can be freely redistributed and modified. Leading information technology companies such as Hewlett Packard and Novell are already issuing "requests for proposal" to the open source development community.

- A community of open source developers may form around the courseware, continuing to enhance and improve it.

MEMO

TO: **Gene Sperling**

FROM: **Mary McCain**
Director, Commission on Technology and Adult Learning
(A joint initiative of the American Society for Training & Development and the National Governors' Association)

DATE: **March 6, 2000**

RE: **Follow-up comments to our discussion about "Digital Divide to Digital Opportunity"**

I appreciated the opportunity to talk with you last week about the Administration's plans to focus practical attention on the issues of promoting access to information and opportunity using technology. The purpose of our ASTD-NGA Commission on Technology and Adult Learning is to develop recommendations and leading edge practice examples for public policy and private sector practice to ensure the development of a skilled workforce capable of advancing in the digital economy. (list of Commissioners attached). We would like very much to be involved in the ongoing development of this initiative.

With reference to the draft proposals you FAXed to me, I and my colleagues were impressed with the scope of the vision you have outlined. In our discussions with people in all sectors, the overriding issue is how to move quickly from "connectivity" to the incentives and motivations necessary to encourage people to use the Internet 1) at all and 2) for anything besides shopping and games. From the perspective of adult work-related learning, we think the following proposals in your overview are especially important:

- training for teachers and others using technology for learning;
- CTC's to provide access in an environment in which technology and people can be integrated;
- the proposals in the section, "Providing Content and Applications ...";

1) develop content that is of use to the user:
we would urge that instead of a tax credit for donated hardware/software - which usually is either dated, incompatible with the organization's existing systems, or requires training that is not available - you develop a tax credit for donations of the most engaging and easily accessed software(usually the newest and most expensive), monitored by an advisory board of the manufacturers that develop it, and coupled with support for its use and integration.

2) partnerships to develop "portal sites"

It is increasingly clear that habit and expectation play a role in the use of technology and the internet by low income families and individuals. We need to learn how to inspire and engage individuals, using content and providing "returns on investment" that are rare in the current Internet environment and are scarce in software available. We don't yet have a good answer for "Learning anywhere anytime, for what?", for many of these individuals.

Portal sites that not only offer one-stop service for child care, transportation, etc. but also offer interactive opportunities to feel at ease with finding and using information in this mode.

- The basic skills necessary for finding ongoing value and opportunity using the Internet are critical. We traditionally think of learning as "mastery"; the Internet offers a world of learning that depends on the ability to "inquire": to find information, to determine if it is legitimate, to analyze it, to organize it and to retrieve it.

These are not insignificant skills for anyone and certainly not for those who lack basic education and assumptions of success anyway. In fact, it appears that we need much more understanding of the importance of ongoing mentoring and other assistance, and of demonstrating opportunities that are actually easier and better using technology than not. Public-private partnerships and the private sector itself expanding the number of portal sites can help with this.

> ***People to talk to: Daniel Ben-Horin, president of CompuMentor (San Francisco); Wendy Lazarus, director the Children's Partnership (Santa Monica, CA); Susan Burnett, Director of Corporate Education, Hewlett Packard Co.***

Additional comments:

- Consider a focus on "e-citizenship" - establishing electronic government, including kiosks offering individual service for drivers' licenses,electronic government meetings, etc.

People to talk to: Kathy Walsh, Manager for Education, IBM Government Programs and Institute for Electronic Government (Washington, DC - 202.515.5041)

- What about using technology to deliver the messages of the President's trip - connecting the children, families, press corps and others by way of video streaming, live interactive Internet connected classrooms and community centers, cell phones connected to the Internet, etc. Most of us continue to preach a delivery method that we do not use.

Automated Records Management System
Hex-Dump Conversion

Into the Future
A Vision Paper

for

American Society for Training & Development (ASTD)

and

National Governors' Association (NGA)

Commission on Technology & Adult Learning

February, 2000

Acknowledgements:

The creation of this vision paper has been one of those rare and fascinating experiences in which what was being written about and the work to be done were exactly the same. This paper is about technology, adults, and learning, all combining to produce quality results and new knowledge. The creation of this paper involved exactly these elements. It required a team of adults, who used the technology available to convert tacit knowledge about the subject into explicit information, so that it could be captured, organized, and readily transferred to the members of the ASTD and NGA Commission on Technology and Adult Learning. Reiterating this process at a new level, the Commission members will assimilate this information, discuss and analyze it, create new knowledge as they do so, work to make this explicit, and transfer it to others to develop policies and practices to effect the Commission's recommended changes. A perfect model of the future vision described herein.

Creating this vision paper has been a classic example of a project team working and learning. As with any project of this magnitude, this paper was a highly collaborative effort. While those who provided various forms of input and ideas shaping this work are far too numerous to mention, the following three people played critical roles and without their assistance this paper could not have been completed:

Jay Cross:
Managing director of Internet Time Group, advises corporations on networked learning and performance improvement. His permanent address is jaycross@well.com and www.internettime.com
Joining the project soon after it started, Jay collaborated on the early ideas on how to approach the broad and deep topics to be covered by the eclectic mix of extremely talented Commission members. Jay continued to play a pivotal role throughout the project in a variety of capacities, including contributing his own diverse knowledge of learning and technology, being a sounding board for new ideas, and capturing wide-ranging discussions of the paper's subjects in a range of formats from written drafts to graphics, illustrations, and white-board meetings. Jay was also extremely valuable in his ability to edit from his perspective of being inside the project, while maintaining an external perspective and looking out for the needs of the Commission. Showing the breadth of his skills and knowledge, Jay also researched many of the issues and references and created many of the graphics and illustrations used within the document.

Marsha Calhoun:
Editor and writer extraordinaire, who lives in Petaluma CA and at likeswords@aol.com
Marsha bore the brunt of the real work on this project, serving as everything from project manager to writer to editor. Originally expecting just to look after the editing, Marsha exhibited exemplary capabilities to be an adaptive and dynamic problem solver. Never was there a task she wouldn't take on, never did a task require too many hours, never was it too late or too early to work. Marsha's tenacity for getting it right resulted in the quality of writing and editing displayed within.

Grace Gallego:
Web and print publishing designer, artist and learning expert. President of Learning Solutions, graceg@pacbell.net and www.gracespace.com
Grace and her team created the entire design of templates, moved all the scattered project content into the format, and turned the whole thing around in days.

In addition, the following people gave extremely generously of their time, often on short notice, to do many reviews throughout the process:

From ASTD, Mary McCain and Cynthia Pantazis went far beyond any reasonable expectations of the overall commission project management and spent countless hours on planes, at night, and over weekends, reviewing, commenting, and conference calling to combine all the various needs and inputs.

From NGA, Evelyn Ganzglass and Chris Thompson provided the much-needed additional perspective of those whom they represent, and they too worked to meet some very short deadlines for review.

Providing the invaluable perspective of those outside the project for in-depth review of the content and organization of this vision paper, were Jimm Meloy of Autodesk, Don Johnson Office of the Secretary of Defense, and Marcia Conner of PeopleSoft.

Wayne Hodgins,
Director of Worldwide Learning Strategies, Autodesk Inc.,
President and co-founder of the Learnativity Alliance

February, 2000

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Notes:

INTO the FUTURE

"We can let the future happen or take the trouble to imagine it. We can imagine it dark or bright - and in the long run, that's how it will be."

David Gelertner, 2000

Imagine.....

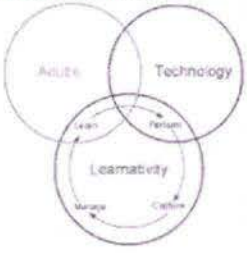
- What we could do if we all shared a common vision of technology and adult learning.
- If our actions and decisions resulted in the reinvention of learning through the more effective application of available technology.
- What the future will be like if we choose to cultivate people with the skills needed to lead the technology that assists them in innovative problem solving.
- Reading in 2010 how this Commission was identified as one of the milestone catalysts at the takeoff point of the new learning economy.

Welcome to the future! In the space between this page and the last, time will be shifted forward five to ten years. Join us on a high-level flight over the new world of technology and adult learning that orbits around the unique learner in a knowledge-based universe. The rules of Newtonian physics have been superceded by those of Learnativity, where the gravitational pull of creating new knowledge determines and shapes the actions of everything within. So suspend disbelief for the next little while, fasten your seat belts low and tight, make sure your tray table is in the locked and upright position, be open to the new world that is created by this shift, and remember that Einstein once said, "A change in perspective is worth at least f50 IQ points. Ready? Three . . . two . . . one . . .

Vision Paper Scope

This paper aims to help you envision the contributions of technology, adults, and learning to a bright and successful future society in which we would all want to live. We will address these three areas:

- ***Adults**, defined as individuals who are currently in or about to enter the work force*
- ***Learning**, as it relates to workforce development in a knowledge-based economy*
- ***Technology**, as it empowers and enables learning and the realization of the future.*



Vision Paper Goals

- Create a **shared vision** of a bright and achievable future for all working and learning adults
- Identify the **common themes and forces** that shape the technology and adult learning environment of the future
- Provide **new perspectives** and new ways of thinking about adults, learning and technology
- Foster **creative thinking** and **imaginative solutions**.

It is in the overlap of these areas that we find the questions and possibilities that need to be explored and addressed. We take a positive view of the future in this paper, but whether or not this future becomes reality will depend in large measure on the policies and practices that we and others begin to determine and put into place.

Vision Paper Premise and Approach

The future isn't just happening to us any more; we make decisions every day that determine what decisions we will be able to make tomorrow. As we stand at the inflection point of a new learning economy, we realize that it will be shaped as we choose to shape it; it will be as rewarding and humane as we make it; the decisions we reach will determine what the world will be like for all of us.

The world of learning described in this paper does not rest easily within the public system of education and training that exists in this country today. Much of this system was put into place as a result of demand, and many of these demands of the time have changed dramatically or disappeared. The requirements for accreditation and assessment, the insistence on certification by accredited institutions, the establishment of public funding following the institution, the economic development policies of states in terms of funding educational establishments, the role of the public sector as a guarantor of access—these tenets of the system were put into place to insure quality, value, marketability, equality of opportunity, and other goals of this society.

How must our public and private-sector policies and practices change as we move into the new world of learning "anytime, anywhere"? Are these changes merely minor modifications of existing approaches to address new circumstances, or are more fundamental changes needed in the principles, premises, and standards underlying our system? Will markets assure access and quality in the new environment? As we realize that the individual is the new focus, locus, and customer, how do we protect and ensure the rights of the individual without creating barriers and intrusive authority?

The Commission on Technology and Adult Learning is being convened to look at the future of work and learning made possible through technology and identify policies and practices that make this future secure and available to all. In developing its policy recommendations, the Commission will be challenged to strike a balance between the new and the old, between the need to achieve results and the need to make sure that those results are achieved in a way that respects individual rights.

"Thus, the task is not so much to see what no one yet has seen, but to think what nobody yet has thought about that which everybody sees."

Arthur Schopenhauer (1788-1860), 1973

The power of a shared vision

We can only create what we can imagine. As Michelangelo reportedly remarked sculpting a statue is easy--it's a matter of looking at a block of marble and taking away everything that doesn't belong there. More importantly, and what is often missed by many, is that Michelangelo worked with a group of 16 to paint the ceiling of the Sistine Chapel. Thus it was not the work of a single individual, however gifted, but the creation of a project team working with a shared vision.

Great groups

"As they say, 'None of us is as smart as all of us.' That's good, because the problems we face are too complex to be solved by any one person or any one discipline. Our only chance is to bring people together from a variety of backgrounds and disciplines who can refract a problem through the prism of complementary minds allied in common purpose. I call such collections of talent Great Groups. The genius of Great Groups is that they get remarkable people -- strong individual achievers -- to work together to get results. But these groups serve a second and equally important function: they provide psychic support and personal fellowship. They help generate courage. Without a sounding board for outrageous ideas, without personal encouragement and perspective when we hit a roadblock, we'd all lose our way" (Warren Bennis, 1997).

The future is about acquiring and acting on knowledge.

We see this Commission on Technology and Adult Learning as a "Great Group," and this paper aspires to provide some clarity for a shared vision and hope that the future it describes is an achievable dream. Specifically, this Commission on Technology and Adult Learning will use the vision presented here to identify public policies and private sector practices that make this future secure and available to all. Creating the future dictates that, like Michelangelo, we have a vision of what we want things to be like, not in every particular, but sufficient to ensure that our multiple efforts have a unity of purpose and direction.

"There can be no innovation in the creation of strategy without a change in perspective."

Gary Hamel, 1996

Future first: Plan back

Alan Kay said, "The best way to predict the future is to invent it." This vision paper is based on the concept of inventing the future first and planning backwards from there to today. The first step is to think about what this future wil look like.

The future is a knowledge-based economy

The term "new economy" refers to a set of qualitative and quantitative changes that, in the last 15 years, have transformed the structure, functioning, and rules of the world. Ideas and knowledge, rather than material resources, drive the new economy, and the keys to job creation and higher standards of living are innovation and technology embedded in services and manufactured products. In this economy, risk, uncertainty, and constant change are the rule, rather than the exception.

There is an infinite supply of knowledge, which means that knowledge-based economics are fundamentally different and poorly understood. Fundamental principles and laws that governed previous economics, such as the law of diminshing returns, are being flipped inside out. In this new knowledge based economy is a seemingly impossible reversal to the law of increasing returns. (see right) However, understanding this new reality is central to constructing a vision of tomorrow.

"The prime law of networking is known as the law of increasing returns. Value explodes with membership, and the value explosion sucks in more members, compounding the result. Industrial economies of scle stem from the Herculean efforts of a single organization. Networked increasing returns are created and shared by the entire network."

Kevin Kelly, 1997

Putting knowledge in context: As action

The future is about acquiring and acting on knowledge. Knowledge is not simply understanding and information; these are the raw resources of the new economy. Knowledge is the high value gained while providing services and creating products. When converged, learning, technology, and knowledge enable and empower individuals and teams to produce value for customers and competitive advantage for the team or organization.

The keys to success in the new economy are improving both individual performance and the productivity of teams and organizations. Both depend on understanding what knowledge is and how it directly affects performance. Improvements in creating, managing, and transferring knowledge can lead to increased creativity, efficiency, productivity, and competitiveness for an individual, a team, an organization, a country. This vision paper will illuminate this process as it is influenced by new technologies.

Putting learning in context: Learnativity

Just as creating knowledge is the keystone of a knowledge-based economy, learning is an integral component of "learnativity." This is much more than just a word or a term. This is literally a new existence, a new way of living, a new way of being who we are. This is the state of the future.

As will be shown in more detail later, the learnativity model for creating knowledge is a continuous, spiraling conversion of tacit knowledge (such as know-how and experience) into explicit knowledge, which can be captured and turned into new tacit knowledge gained from learning by doing. In this context and in the knowledge-based economy, learning can be seen anew as an integral part of a knowledge creation spiral that involves

- **Performing**
- **Capturing**
- **Managing**
- **Learning**

A bright future depends on bright people

As we examine adults, technology, and learning, they all appear to be shaped by massive convergence, imploding to form a new common center of uniqueness. Roles and responsibilities that used to be divided nicely among different adults are now converged upon every individual. Technologies such as computers and telecommunications are converging, and learning is converging with performing, managing, and creating knowledge.

According to Webster's New World Dictionary of the American Language, College Edition, quaquaversal is defined as "directed from a common center toward all points of the compass; turning or dipping in all directions." We are entering upon a convergence of the inversed quaquaverse.

While this center of uniqueness is the inverse of what we have known, turning most of our perspectives and models inside out, it can also be seen as the nuclear center of quaquaversal motion – radiating out in every direction from the center – that is the nature of a bright new world and economy envisioned as the future of technology and adult learning.

The future will depend upon bright people using technology to cultivate their uniquely human skills. There is a significant difference, often overlooked, between machines that are able to perform so many functions that they usurp the roles of the people who use them, and truly intelligent tools and technology. For example, self-serve gas station pumps and automated scanning devices at checkout counters have automated front-end sales so as to virtually eliminate the need for skilled labor, or for any person at all. This is in stark contrast to something such as 3D design technologies, which support their respective users but require higher-order thinking skills from the person using them.

When we automate an existing process we increase its efficiency, which increases the mechanical nature of the work that is required. However, intelligent tools and technology cause the opposite: an increase in effectiveness rather than efficiency, with more new and more skilled roles that also tend to pay higher salaries.

Higher-order cognitive skills are the key to ever more intelligent technology to extract and create the knowledge these technologies make available. The need for these skills is permeating literally all jobs, requiring everyone in the workforce to be bright, to be a knowledge-based worker and feed into the knowledge-based economy that increasingly predominates.

The choice is ours to make: We can choose to foster a workforce whose main function is to supplement the machines that do the work, or we can cultivate people so that they can acquire the skills necessary to lead the technology that assists them in innovative problem solving. In this vision paper, we choose the latter and offer you the option of the bright, personalized, knowledge-based future.

Revolution or Evolution?

An economic revolution changes how everyone does business, not just how a specific product is made. So the invention and production of the automobile, for example, is not a revolution. There were 200 or so auto manufacturers in the 1920s, and they eventually became just three, but business was conducted the same way. The steam engine, however, revolutionized how all work was done. Similarly, industrialization revolutionized where and how all work was done. And in our time, computers, networking, and the Internet are changing how all work is done. ***We're truly in a revolution.***

Dr. Lester Thurow, 1999

The choice is ours to make: We can choose to foster a workforce whose main function is to supplement the machines that do the work, or we can cultivate people with the skills necessary to lead technology that assists them in innovative problem solving.

Technology

We finally have things in the right order, the horse before the cart. Technology is human-centric, designed to be intuitive and transparent. Just like oxygen, light, food, clothing, and shelter, we depend upon it to just be there. We expect it to actively and adaptively support our performance and productivity. Virtual and augmented reality, simulations, digital paper and ink, voice recognition and control, and biometric feedback are a few of the technologies that provide truly dynamic and adaptive support for learning and performing. Technology is so natural to use and so supportive of completing the right tasks well the first time, that the users are unconscious of the technology itself and focused instead on success.

Intelligent technology aids and abets our learning because of its own ability to learn through memory and pattern recognition. It learns about us as we use it, observes the surrounding conditions, notices the consequences and results, and is able to analyze what it learns to anticipate our future needs. We finally have truly just-in-time learning and performance support for achieving personal and group peak performance.

Today	→ Tomorrow
Technology in the Foreground	Transparent, Embedded, Background
Smart	Intelligent (Learns in Use)
Virtual	Augmented
Artificial Intelligence	Augmented Intelligence
Generic	Task Specific
Good Guessing	Precision Predictability
Pre-programmed	Adaptive to User and Situation
Proprietary	Open Standards

Imagine.....

- *Technology adapts itself to you and your environment, not vice versa.*
- *There is a pervasive, ubiquitous, and transparent technical infrastructure supporting all your learning and performance needs.*
- *Technology looks after all the details so you can stay focused on solving the real problems.*
- *You are part of the "infrastructure," a "node" connected to the system that is aware of who and where you are.*

AT A GLANCE

- Technology is disappearing much as electric motors did, embedded and invisibly working within virtually all appliances, clothing, even the soil and the air.
- Our own limitations for innovative thinking and application are the limits on the potential of technology.
- The most valued technology is not that which replaces reality or intelligence with artificial forms, but that which ***augments*** our own.
- Performance support and augmented intelligence technologies replace the need for *technology operators* and increase the demand for higher-order thinking skills of the know-why variety that are highly transferable.
- Technology will largely obviate the need for formal, classroom type, event based learning to produce know-what and know-how.

It's about *time*

Human attention is our most valuable and scarce commodity. When our time is what we have to offer the world, we look at technology differently. We aren't distracted by the sheer novelty of what it can do. We want to know how quickly it can help us get where we want to go, do what we need to do. We want it to stay in the background of our conscious awareness and environment while it assists us to perform the uniquely human tasks of exploring, evaluating, creating, innovating, and communicating.

General to specific

Technology moves from being very generic and centered on process automation to being very application-specific, matching the specific needs and knowledge of what it is being used for. It moves from word processor to guided resume creation, from spreadsheet to financial "agent," from computer-based training to ever-present and available personal learning mentors and performance coaches.

Smaller, faster, cheaper

Following the apparently infinite advance of Moore's Law (which states that computing power doubles every 18 months), the similar microtization of the size, cost, and power consumption of technology provides ever-smaller and more powerful technology at ever-lower prices. Tiny computers are increasingly embedded in our clothing, our homes, and our workplaces. They are ploughed into the soil, floated in the air, embedded in every bottle, box, and container, and are part of every machine, vehicle, window, and door. Wireless virtual networks power our "smart houses" as computers literally fade into the woodwork. Eventually, they disappear from conscious awareness, just as the miracle of electricity and all the thousands of motors in our appliances have done. Our focus is shifting from how "cool" technology is, to the amazing results it enables us to achieve. We are limited only by our imagination and capacity for innovation in reaching this bright future.

Just like me: It's only natural

Technology that can learn about us can serve us better. When we're word processing, we don't want to do a "spell check" –of course it has to be spelled correctly, and the language has to be localized to include the appropriate use of colloquialisms, professional jargon, acronyms, etc. We expect it to ask when it doesn't know, and to remember what we tell it.

We feel the same about voice recognition. We want it to recognize not only our speech, but who is speaking. We want it to learn our way of speaking, read representative samples of our previous work, have a knowledge base of best practices for this type of communication, and coach us on ways to improve if we can, as well as transcribe what we say if needed and on demand. When we have a question, we want to ask it—out loud. Natural language processing takes the question, combines it with what it knows about us and our current situation, and provides a response accordingly. Rather than adapting ourselves to accommodate the requirements of technology, the technology accommodates and serves us.

Clothes or Fire?

Information technologies are more like clothes than like fire. Fire is a wonderful technology because, without knowing anything about how it operates, you can get warm just standing close by. People sometimes find computers, televisions, and telecommunications frustrating because they expect these devices to radiate knowledge. But all information technologies are more like clothes; to get a benefit, you must make them a part of your personal space, tailored to your needs. New media complement existing approaches to widen our repertoire of communication; properly designed, they do not eliminate choices or force us into high tech, low touch situations.

Chris Dede, 1995

The Vision

Migrating from smart to intelligent

Adaptive technology adjusts dynamically to the person, the situation, and the objectives desired. It gets better as you use it, learning and remembering what it did before and using this information to predict what you might need next. When smart technology is supplanted by intelligent technology, we no longer strive to do old jobs better, but look toward innovating and creating new possibilities.

Augmented Reality

One such technology is augmented reality (AR). In contrast to virtual reality (VR), which normally shuts out all of the input of actual reality with headphones, goggles, body suits, and sealed chambers, AR users might wear a pair of clear glasses or a head-mounted system that projects an image in front of them. AR leaves all the real information in place and additional information is "layered" over top. You see, feel, and hear both the real and the augmented.

The first applications were used to augment the view of pilots, projecting some of their navigation controls and information about their weapon systems, etc., into their immediate field of vision on the windscreen. However, more innovative applications now merge the two realities into one. The IBM "World Board" on the left suggests a whole new and innovative application for this technology. Start simple and imagine the benefit of seeing overlaid text and sound as you pan and zoom the camera around a new city you are visiting. Now step up to imagining pairs of clear glasses worn by an emergency response team that has just been airlifted into an unfamiliar city and culture halfway around the world in response to a natural disaster. Now imagine a mechanic or a surgeon who can see a two-second advance image of her virtual hands and equipment flawlessly performing a revolutionary new technique, which she first heard of only even briefly that morning! Is it learning? Is it working? Yes: learning, working, and technology, fused for peak performance.

AUGMENTED REALITY

IBM's "World Board" puts entire libraries of travel information in the palm of your hand *Wired*, January 2000). Looking through the GPS-assisted viewer and select a wireless network channel; the real-world things you see will be overlaid with text and graphics.

Imagine trying out several "virtual" buildings you set in place next to the real ones in the screen. Imagine...

MIT Media Lab has developed a snug-fitting suit with metallic fibers woven in that detect where and when the fabric stretches, deducing the movement of your individual muscles and limbs. The onboard processor then uses this data to reconstruct body motion and diagnose trouble spots. Plug the unit in, see yourself onscreen as a 3D, animated model and use this technology to reveal bad habits that simple videotapes miss. The cloth even generates its own electricity, so you'll never need batteries. Imagine adding some force feedback so you feel the suit guide you to the perfect swing. Now THAT is performance support.

(Model Tee, *Wired*, January 2000)

GOLF INSTRUCTOR UNDERWEAR

Collaborative filtering nets great recommendations

Collaborative filters help people make choices based on the opinions of other people. It is often necessary to make choices without sufficient personal experience of the alternatives. In everyday life, we rely on recommendations from other people, either by word of mouth, recommendation letters, movie and book reviews printed in newspapers, or general surveys such as Zagat's restaurant guides.

By harnessing the knowledge of communities to make recommendations to individuals, this technology presents new solutions to an acute problem: overwhelming choice. Just as in everyday life, the trick is in knowing who you can trust to give you recommendations that will help you make the best decision. Creation of "community knowledge" of tastes and preferences enables the anticipation of what individuals need, even before they know they need it. This works by comparing an individual's preferences with those of other people who have expressed similar interests, automating, improving, and accelerating the ability to make recommendations for individuals.

Recommender or collaborative filtering systems augment this natural social process. In a typical recommender system, people provide recommendations as inputs, which the system then aggregates and directs to appropriate recipients. In some cases the primary transformation is in the aggregation; in others the system's value lies in its ability to make good matches between the recommenders and those seeking recommendations.

Augmented intelligence yields predictive technology

Packing lots of information and pre-programmed actions into tools and technology has led some to label them as "smart." However, this should not be confused with intelligence. A robot with lots of pre-programming and information, while very helpful in automating the processes it is built to perform, can only be as good as the programming. Its value increases dramatically with the ability to analyze inputs, behaviors, and actions and form new information by recognizing patterns, identifying cause-and-effect relationships, and making deductive decisions. This kind of augmented intelligence adapts to its surroundings; it learns, and it improves with use. In contrast to fixed programming with built-in best guess information, augmented intelligence offers the missing element of predictability. Being able to accurately predict what someone is doing or what he or she needs enables action such as providing specific content that is now highly relevant to the unique person and situation at hand, or technology that is able to adjust itself. This ranges from simply knowing the location and time to more complex understanding of moods through biometric feedback, face and gesture recognition, and overall pattern recognition.

Standards make it all possible

No previous new economy or revolutionary change in our ways of working and learning ever came about without the widespread adoption of standards. Railroads, telecommunications, VCRs, and the Internet itself are only a few examples. The new learning and knowledge-based economy takes off only when open, accredited standards become universally adopted. They enable full interoperability, interchange, sharing, and reuse of information, tools and technology.

The Impact on Learning

> *"There are two fundamental equalizers in life — the Internet and education."*
>
> John Chambers, CEO, Cisco Systems, 1999

Technology: The world's greatest equalizer?

In the world we are creating, technology is breaking down the walls of privilege. Networks carry the best educational opportunities to the most remote corners of the earth. The Internet cuts through socioeconomic prejudice, offering people work based on their ability to perform, rather than on the color of their skin or the cut of their clothes. As technology connects us, enables us, and lets us do our stuff to match one another's needs, the balances of wealth and prosperity change dramatically. While the outcomes are not guaranteed, the potential for a new balance comes as opportunities to learn, work, and create the new currency called knowledge are increasingly available to all.

Seeing is believing!

In the cause of accelerating individual, collaborative, and enterprise-wide learning, this statement could not be more relevant. Visualization will be at the heart of knowledge and understanding in the coming decades. In a world characterized by increasingly complex information sets, our ability to acquire and understand them quickly will become central to effective performance. As visualization technologies evolve, we can expect to see the spoken and written word, our dominant modes of sharing today, eclipsed in many instances by 3-dimensional, highly interactive and compelling models, simulations, and augmented realities. These technologies and content enable all types of information to be modeled and presented visually: business practices and processes, customer behaviors and preferences, organizational relationships and responsibilities. Dynamic models and simulations enable us to learn much more rapidly and effectively than we might through conventional means of training, and they will also help us collaborate productively in the creation of new knowledge.

Learning to use technology: One less problem

Technology for learning is changing *how* we learn and *what* we learn. Instead of spending all our time figuring out *how* technology works, we now focus on putting it to work for us (right away, no learning curve required) to complete projects, solve problems and do the work for us. The potential of intelligent technology to enhance learning and performance is staggering. Working becomes an integration of learning and performing, facilitated by discipline-specific technology that adapts to the uniqueness of the individual using it and the work and conditions at hand.

Agent 24/7: Licensed to learn

Wrap up a mix of augmented intelligence, pattern recognition and predictive technology, and the ability to communicate, and we have another great advantage: autonomous intelligent agents and learning assistants. These tireless intelligent agents are out there working for us, getting just the right information, finding new tools and techniques, and putting us in contact with the right people and knowledge at the right time. Learning is not only personalized, so is the service!

Out with the old; in with the new (basics, that is)

Technology will largely obviate the need for formal, event-based learning in the workplace that seeks to provide know-what and know-how. This change creates a demand for higher-order, highly transferable thinking skills of the know-why variety needed to work with the predominant performance support and augmented intelligence technologies.

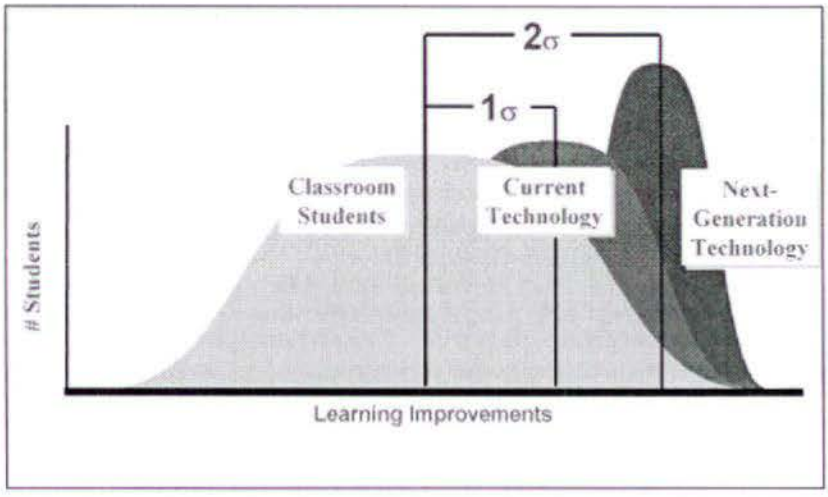
Intelligent computer-assisted instruction has proven to improve learning exponentially, rather than incrementally.

The illustration on the right (Bloom, 1984) shows that for the average tutored students, achievement is better than 98% of the untutored classroom students.

Advance Distributed Learning Network, 1999)

Personal learning assistants and intelligent tutors

With "intelligent tutors" that look over our shoulders, anticipate what we will need next, and offer us suggestions for our next move, our rate of learning increases by two units of standard deviation (at least). With performance support, instead of going down blind alleys, we keep the course, and make faster and more accurate intuitive leaps. Teachers focus on helping us see the patterns that consistently affect our performance, rather than on correcting our mistakes as they arise. We encounter new tasks confidently, knowing we will be productive immediately, even while we are learning



Falling on the asymptote toward zero

Education and training focused on how to use technology, which make up the majority of all current IT training, testing and certification, fall closer to zero, obviated by human-centric design and transparency of technology, embedded knowledge, and performance support.

Balancing value, privacy and performance

Of course, the personalization of technology is rife with questions regarding privacy. The technology functions better the more it knows about us. How much you are willing to share and how far you are willing to let technology into your life is directly proportional to how much it can help you. There will therefore be a precarious balance between privacy, protection, trust, and rights, and the degree of benefits received.

Points to Ponder

Work & Learning	How will we cultivate the characteristics that let us use technology wisely, and how can we know what those characteristics are? How can we rapidly expand the use of technology for training and re-training the adult workforce?
Individuals	As technology advances at its exponential pace, and as technical limitations are resolved equally quickly, our ability to develop innovative and creative applications becomes the limitation on how quickly benefits advance. How do we accelerate the rate of *human* advance? What basic skills are needed to function effectively in the new world of technology-enhanced performance?
Teams	How can we create teams that have cohesive identities, yet enough flexibility to allow the useful participation of short-term consultants?
Organizations	How can organizations encourage the creation of technology that enables us, and see that it reaches the marketplace?
Policy & Practice	What are public and private roles and responsibilities in developing intelligent technology supports for learning? How do we ensure that the necessary technology infrastructure for just-in-time access and delivery is available? What level of investment is required? What is the mix of public and private sector investment? The digital divide has its roots in more issues than the literal connections to technology. How do we ensure that all communities share the positive assumptions and expectations about the benefits of technology?

Adults

Imagine.....

- *We all know precisely what we need to know and learn at any given time.*
- *Every individual carries a detailed and continuously updated "inventory" of his or her skills and knowledge.*
- *For any given project, we can assemble the ideal team, based on skills, availability, costs, etc., and we know exactly what learning and support to provide for peak performance.*
- *Project teams learn as a single organism and get smarter as they work.*

Adults (defined here as people who are in or about to enter the workforece) typically define themselves from several perspectives: as individuals, as professionals, as team players, as members of a community of practice, and as part of an organization.

Today →	Tomorrow
Corporation	Project Team
Technology Operator	Process Manager
Mass Certification	Skills & Knowledge Inventory
Managed	Motivated
Control	Responsibility
Diverse Masses	Unique Individuals

AT A GLANCE

- *Individuals, teams, and communities replace employers/workers/customers.*
- *Personalization is the key to enabling personal best performance.*
- *The motivation of the individual will be at the heart of knowledge creation, and the relationship between individuals and organizations will undergo profound changes as we uncover issues of ownership, intellectual property rights, authority and responsibility, etc.*
- *Working and learning will be the same thing.*
- *To be all that they can be, people become both in control of and personally responsible for their own development and learning.*
- *People primarily identify themselves through project teams and communities of practice.*
- *Teams and communities are enabled to create and grow their* community knowledge.

The Vision

The individual is in control of the future

We are each responsible for our own learning and personal and professional development. Workers concentrate on problem solving and customer service, as computers take over the linear, repetitive functions people used to do back in the twentieth century. The choices the individual makes determine the success of the organization, and what the individual chooses depends on what he or she knows.

Multi-tasking now applies as much to individuals as it does to computers that can handle multiple tasks concurrently.

Project teams: The new unit of working and learning

Once the domain of large corporations, projects are completed by autonomous, "virtual" organizations or project teams. These teams consist of inspired workers (individual contractors, advisors, sub-contractors large and small) who are equipped to make sound decisions on the fly...to initiate and innovate ...to execute good ideas in a snap. Work is but a series of projects. People move from one project team to the next, according to project needs, incentives offered, and their abilities, aptitudes, and preferences, often serving on more than one team at a time.

Large organizations perform more like schools of minnows than whales.

Organizational structures rise and fall

Adaptive virtual organizations replace rigid organizational structures, and the organization at any one time consists of the sum total of people and companies involved in successful completion of a project. Organizational structures form and re-form continuously in response to immediate needs. Large organizations perform more like schools of minnows than whales. Individuals recognize that continuous learning and nurturing of skills are vital to productivity and professional satisfaction. People seek opportunities to stretch themselves while employing their unique abilities, choosing jobs and projects that provide them with the best learning experiences and opportunities to excel.

Cisco Systems has replaced "time to train" with "time to perform." Sun Microsystems automatically assesses how long it will take to assemble a new project team, factoring in such things as personnel availability, competencies required by the team, and how long it will take team members to master necessary new skills.

Personalization is the key

Providing the opportunity for everyone to learn and perform at his or her personal and team best is accomplished through the ultimate in mass customization: personalization. This tailoring of technology, information, and support to match the unique characteristics that define any individual at a specific moment makes learning truly personal for every learner. This is a increasingly vital phenomenon in a world where people are much more different than alike. The workforce continuum expands in age (people expect to work productively into their eighties and nineties) and cultural background (in the United States, many minorities replace the majority). The highly diverse needs of this highly diverse workforce are met through focusing on the individual, and providing learning tailored exactly to the their needs, saving time, money, and energy by optimizing their performance.

We all have a skills gap, all the time

When new knowledge is created at a rate faster than workers can learn it, a shortage results, no matter what the subject matter. This is not a problem that we need to fix. The skills gap is a ubiquitous characteristic of life in the future we envision, because everyone will have needs for new technology (and other) skills. Creating support for lifelong learning in a variety of forms is imperative to successfully addressing this fact.

ADULTS

The Impact on Learning

> *"In the knowledge-creating company, inventing new knowledge is not a specialized activity—the province of the R&D department or marketing or strategic planning. It is that way of behaving, indeed a way of being, in which everyone is a knowledge worker—that is to say, an entrepreneur."*
>
> Nonaka, 1991

Shifting responsibilities for learning and educating

The relationship between individuals and organizations will undergo profound changes as we uncover issues of ownership, intellectual property rights, authority and responsibility, etc. The migration of control to the individual will have a profound impact on learning as individual learners place their unique demands on those seeking to meet them. Conversely, those in control of the learning, the individuals, also inherit the responsibility for their learning and performance, which will have equally profound implications and reverberations.

Storming, forming, norming, performing . . . And then what?

In a world where project teams are continuously forming and reforming, it becomes critical to be able to form them rapidly, bring the members together into cohesive groups, elicit their peak performance to complete the projects, and then dissolve them so the individuals can move on to new teams. Organizations must learn how to address the social implications and consequences of creating and dismantling teams, pulling people away from those with whom they have "bonded" and constantly shifting them onto new teams and new projects, with new roles, responsibilities, and even locations.

An effective project team acts more like a single organism that a collection of individuals, with its own capacity to learn and create knowledge as it works. Understanding how a team learns, being able to capture the new knowledge it produces, and fostering the relationships that define its identity become the critical success factors. What's the etiquette for mentoring someone twice your age with half your experience? Learning in organizations must effectively foster knowledge transfer across a wide range of ages, cultures, and experience.

> Metcalfe's Law is as true for networks and groups of people as it was for nodes on the web: The power of a network increases exponentially with each additional node. With networks, big is better -- ubiquity is the goal. The telephone network as an example: When only a few people had phones, the value was limited -- same thing with faxes. If one person is added to a project team of 10, the team's value does not increase by 10% but perhaps by 100% because of the connections and synergy the new person provides.

Professional and personal profiles

As the experiences of individuals and teams are increasingly captured through tracking, recording, and analysis of their performance, there is the opportunity to develop extremely powerful profiling information. This can be used by individuals, teams and organizations alike for everything from credentialing, knowledge and skill inventories, hiring, compensation and recognition, mapping individuals to learning content, and much more. What's more, all this is fully portable and interoperable, enabling adults to build their performance portfolios continuously and take them along wherever they go.

Communities of knowledge and learning

It is human nature to form communities of like-minded people with common interests. This natural grouping is inevitable and powerful. While project teams represent a type of temporary community, it is the communities of professional interest or practice that prove to be most durable and effective, as they become the knowledge base or brain trust of each profession or practice. Aided by technology and driven by demand for new learning, each representative group grows this community knowledge pool as it captures nuggets of knowledge from each member and provides them to the individuals in the community.

Points to Ponder

Work & Learning	Who controls and is responsible for work-related learning, if individuals control learning and are working predominantly in teams? When knowledge is created, who does it belong to? Who tracks the learning profile of adults and what issues related to privacy must be addressed through public policy?
Individuals	In the previous economy, ROI represents "return on investment." In the new knowledge-based economy, ROI represents "return on *individual*." How do you pay a person for inspiration? How do we balance individual rights and responsibilities in ways that offer some protection to the learner and guidance to the employer/organization?
Teams	As we increasingly understand teams as single organisms, how will we assign responsibility and compensate individual excellence? Project teams by definition exist for a finite time and then need to be dissolved. How do we deal effectively with the human resistance to breaking up such well-formed and bonded teams?
Organizations	How do organizations most effectively shift the focus of their capital investments to the new priority of the knowledge-based economy, human capital? How do they account for and value this? "Democratization" as a byproduct of technology-driven learning will mean that organizational success will depend upon a responsible, well informed, and educated populace. What kind of cooperation and shared vision will be needed to produce this?
Policy & Practice	Who tracks the learning profiles of adults and what issues related to privacy must be addressed through public policy? What policy change, creation, and application are needed to match the completely new valuations of assets when most assets are intangible? What new systems of certification and credentialing of competencies are needed and what are the public and private responsibilities for creating and maintaining such systems? Is a learning profile as confidential as a medical record? How can individuals, organizations, and governments change the system while operating within it?

Learnativity

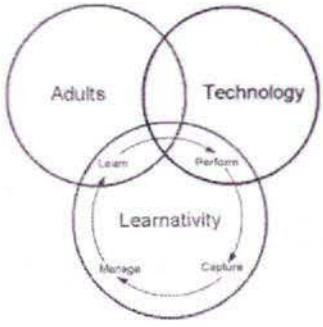
Imagine.....

- *There is a new way of being that fuses learning, working, creativity, and knowledge creation into a single synchronous state.*

Convergence

Perhaps the most prevalent theme of the future is convergence. Technologies converge to create new technologies, and professional skills converge to create new professions. However, these convergences pale in comparison to the implosion of learning, working, capturing knowledge, and the management of their sum total. These previously disparate and relatively independent activities have converged to become one. Just as in nuclear fusion, their intersection creates a previously unimagined new state producing equally unimaginable amounts of creativity, innovation, productivity, and performance. This fusion creates an infinite supply of the new energy source of the new economy: *knowledge*.

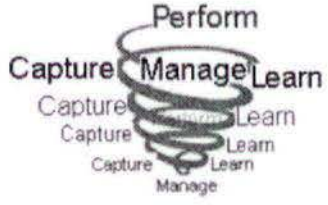
Learnativity?



It is perhaps revealing that we do not have a word or a name for this new state. What do you call that which you and ever other person are doing every day as you solve problems, work, plan, communicate, and learn? When they used to stand still long enough, when they were independent activities, we simply called them by their own names. But when they happen all at once and all the time, fused together into one single state of just being, what do we call it? For the purpose of this paper we will call it *learnativity*.

AT A GLANCE

- Learnativity, the nuclear fusion of capturing and managing knowledge, learning, and performing, releases the power of individuals and teams.
- Human attention is becoming our most scarce and most precious resource.
- Learning becomes a part of working and working becomes a part of learning.
- Learnativity creates an infinite supply of knowledge, the raw resource of the new knowledge-based economy.



The Learnativity Spiral

Redefining learning, working and knowledge

Expertise used to demand constant improvement of one's ability to perform the tasks or skills of a profession or trade. However, as multiple professions converge and fuse, as tasks and skills are constantly replaced with new ones at an ever-increasing rate, expertise becomes a matter of steadily renewing one's knowledge base and extending it to new areas. Critical expertise has transformed into the continuous creation and acquisition of knowledge and skills. This lifelong cycle of learning is the new foundation of personal self-worth and that of all teams and organizations. One's primary responsibility, and perhaps the only sustainable competitive advantage, is to improve one's ability to learn and apply the right things faster.

Putting learning (back) into context and motion

A classic and historical problem with most approaches to education and training has been to see learning as an end in itself, an activity that is designed and studied independent of the learner and most importantly, independent of the overall system within which it works. Learnativity is *not* a mechanical, static, linear process, nor one that can be understood by examining any of its components outside of its systemic context. It is a very human, dynamic, and complex flow that resembles an organic structure more than a mechanical one.

The Learnativity Spiral

Knowledge creation in action

Learnativity is knowledge in action, a continuous spiraling conversion of tacit knowledge (such as know-how and experience) into explicit knowledge that can be captured, shared with others, diffused within groups, and turned back into new tacit knowledge gained from learning by doing. Learnativity is a way of continuously creating new, actionable knowledge. The key is to see this as a single state, with the following four primary elements swirling within:

Performing

Let's start where we want individuals, teams, and organizations to end: peak performance. Performing, as used in this paper, refers to the application of knowledge. We put knowledge to work, solving problems. Performing is the integration and application of knowledge in the activities, products, and services of the project team or organization. Explicit knowledge converts to tacit as successful performance achieves results and the workers move on.

Capturing

Capturing knowledge means converting it from a tacit state into an explicit, comprehensible form – such as a video, a simulation, a model, or words and illustrations in a document – so that others can understand it.

Managing

Management of information, learning, and performance is the conversion of explicit knowledge (formal and expressed) into complex and valuable combinations of ideas, insights, and experiences so they can be shared with others.

Learning

Learning is the means by which tacit knowledge (informal and subjective) is exchanged between individuals and between the learner and the learning resources. It is therefore both social and personal in nature. It occurs in both formal and informal settings, and includes connections and direct interaction among people. Learning is also the personal transformation from explicit to tacit within the individual through reading, observation, and reflective thought.

While this is obviously a complex model, we can use a simple example to illustrate. As the owner of a small business, you continuously learn what the customers like or dislike by walking around, asking questions, speaking with them and with the employees. You write down what you've learned or you invite your customers to fill out questionnaires and make suggestions. You share what you learn with your employees and invite them to suggest ways that the products and services you provide might be improved. Finally, you put these suggestions into action, incrementally improving your business and ensuring that your clientele remains loyal.

This all takes place on an ongoing basis within the context of this group of individuals and this company. It yields a sense of loyalty and value, a sense of purpose and accomplishment, for all those involved. This group bonding and learning produces yet more valuable knowledge, which can be subsequently utilized to bring more value to those being served, in the form of tangible services and goods.

Organizations that are successful in the creation and management of knowledge cannot mandate that knowledge will be created, nor can they automate the process. The organization can, however, provide conditions, an environment, that will foster, nurture and support this type continuous learning, which in turn results in peak performance.

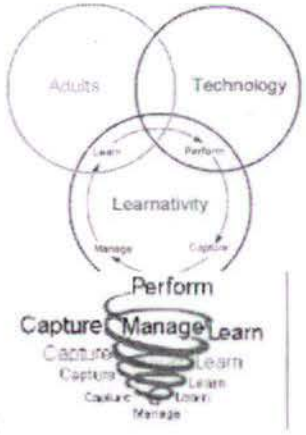
It may seem that learning has been eliminated when in fact it has just faded from conscious awareness as it increasingly embeds itself into our products, services, tools, and technology. Learning takes its rightful place as a fundamental requirement of just being. It is no longer always an event, an activity, that is divorced from the rest of our life and existence. Perhaps this is the ultimate form of the much-discussed convergence we see happening in most other areas, such as technology.

The four elements of learnativity:

In the following four sections, we examine each of these elements, always with the understanding that they do not exist individually, but are integrated in the single state of learnativity.

Understanding such a complex fusion presents a fundamental challenge. It is too complex to consider all at once, yet if we break it down into smaller pieces and examine them independently, it is no longer a fused whole. Our solution here is to do both. We will identify and study the four different elements of learnativity capturing, learning, managing and performing and we will constantly observe their connections and context as being part of a single unified state of being.

Learnativity is much more than just a word or a term. It is literally a new existence, a new way of living, a new way of being who we are.



Performing

Imagine.....

- *Working and learning are synonymous and synchronous activities.*
- *Peak performance is a continuous state, first time, every time.*
- *Working and learning are all project-based.*

You know. But can you perform?

Technology, learning, knowledge, content, and the management of these things are all only the means to the end we seek: constant improvement and peak performance. In the future, these means continue to fade from view as the lens of performance brings everything into clearer focus. As Paul Strassmann says in his book, *Information Productivity*, "Knowledge-based strategies cannot be developed unless they are linked to measures of performance." Just as informal learning is now understood as the primary and most effective means of learning, so is learning while performing real tasks (a.k.a. working) understood as a new-age version of *apprenticeship*. Learning and learning technology find a very comfortable fit in this context of performance in the workplace. Measuring the end result, the performance, provides one of the more meaningful benchmarks against which to make smart decisions, determine benefits, and provide meaningful assessments for improvement

Today ⟶	Tomorrow
Organizations	Project Teams
Time to Train	Time to Perform
Generic Technology	Job/Task Specific Technology
Incremental Improvements	Order of Magnitude Gains
Automating Known Process	Innovative New Process
Pre-planned Training	Adaptive Performance Support
Trained	Readiness
Technology Operators	Process Managers

AT A GLANCE

- Effectiveness, rather than efficiency, is the new measure of performance.
- Cognitive readiness is the goal state of being.
- Innovation becomes the primary source of increased performance, creating new ways of solving problems faster, better, and more cost effectively.
- The bottleneck of human performance is in the limitations of available attention and learning capacity.
- Performance support technology enables peak performance for all by supplying continuously adaptive and dynamic support in real time as we work.
- People do not predominately *operate* technology; it is ubiquitously present, augmenting individual and team knowledge and performance.

Poised for the performance and productivity explosion

We are now on an exponential productivity gain curve into the future. In terms of performance/productivity, humanity has experienced major phase changes in the past. Consider the Industrial Revolution. Adam Smith described how we moved from the age of guilds and crafts to the age of mass manufacturing. "[Smith] showed that the factory workers of the industrial age were not 2 times or 10 times more productive than craftsmen were, but 5,000 times more productive. A key reason that specialized workers can produce so much more is their faster process of learning. Each worker has to master only one part of the process. Because he gets to apply his intelligence to that one component more frequently, he accelerates his learning" (George Gilder, 1999). In the factories, learning was captured, converged, and utilized to create an overwhelming increase in performance. However, it might be argued that it was a case of machines, rather than humans, becoming more productive. In any case, we moved from shovels to bulldozers and the gains were dramatic.

In epidemiology, a tipping point is the nearly instantaneous shift from a few people having the flu to a full-scale epidemic. Our economy and our society are today at a tipping point. Enough little changes are present to usher in a sweeping, seismic change that will change what we mean by working and learning.

The Industrial Revolution's 5,000-fold increase in productivity was created over a period of years in a time when capital was scarce, equipment was expensive, standards were rare, communication was slow, the path was unclear, and getting anything done required assembling every worker in one building.

It is a much different scenario in the new knowledge-based economy. Technology and the Internet erase many of the historical obstacles and create expanding numbers of opportunities. Capital flows freely, bits are replacing atoms, systems operate on a universal language of open standards, communication is instantaneous, and perhaps most important, we can envision the future.

The Vision

Innovation vs. automation: Effectiveness over efficiency

In the new knowledge-based economy, efficiency takes a back seat to effectiveness as entirely new and innovative ways of delivering value to those being served become the norm. By not having to spend so much time operating machines or technologies, people have more time to focus on putting technology to work in wholly new and innovative new ways to achieve the desired end result.

Efficiency is doing things right.

Effectiveness is doing the right things.

Computer-assisted design (CAD) is a good example. CAD was originally hailed as "revolutionary" and highly productive when used by architects and drafters to draw up plans using a mouse and keyboard instead of pencil and drafting board. Because it was more accurate, much faster at redesigning, and able to produce more drawings faster, it certainly provided a performance gain. Or did it? Was the objective to create better drawings, or to create better houses? With more innovative thinking, CAD came to be used to create simulated 3D models that, when combined with virtual or augmented reality technology, let the customer know what it would be like to walk around a kitchen before it was built. The innovation came at the level of exploring the product's potential effectiveness in achieving the end goal (a great house) rather than increasing the efficiency of the means (drafting).

Performance becomes less a matter of getting the job done than of redefining how to do the job, eliminating previous procedures and going after entirely new ideas for achieving the same end results. Innovation becomes the primary source of increased performance, and as such, the most valued ability of any individual, project team, or organization.

Recognize knowledge and technology as key enablers, but do NOT confuse them with results!

What does it mean to be competitive?

Individual, project team, and organizational performance form a continuous loop. When considering how to increase productivity and performance, it's important to see the performer both as an individual and as a member of a group. Performance for the individual means problem solving, utilizing creativity, and sharpening or adding new skills. For the project team, it means completing the project and meeting or exceeding expectations. For the organization, it means fulfilling its mission better than any other.

Much of this is driven by the new choices available to those being served. When technology makes it is quick and easy for anyone to locate every available product or service that meets a given criteria, find out how it is rated by experts and other consumers, learn how to determine and refine choices, and even have suppliers bid for the business, there arises a whole new definition and understanding of what it means to be competitive in the new economy. Whether it is the individual, the team, or the organization, being competitive means being the best choice available and providing the best overall experience for whoever is being served.

The motivation factor

Peak performance as a goal has the additional benefit of providing much of the critical motivation for individuals and groups. Learning and performing to either personal or team best is a primary part of people's sense of self-worth and pride. Professionally, people learn in order to improve their performance within their occupations and contribute to the larger world as members of their communities of practice. This sense of position relative to one's professional peers is a similarly significant motivation factor and determinant of an individual's sense of self-worth

Project teams as single organisms

Project teams have a set of behaviors and characteristics that are strikingly similar to those of any living organism. Just as with an individual, the performance of a project team is primarily rooted in its ability to learn and to respond effectively in solving problems and completing the project at hand. Unlike the individual, though, performing teams have just one goal: to complete the project successfully.

Project teams supported by collaborative technologies

Technology not only enriches the individual through continual, unobtrusive performance support, it offers the same benefits to teams. Team-level tutoring assists the interpersonal functioning of the group, smoothing the exchange and utilization of information. Ongoing evaluation programs provide continual course correction. People matching (finding supply to meet demand, connecting on the basis of interest or expertise) through real-time audio and visual communication provides teams with the flexibility, accountability, and easy communication that lead to better performance.

The primary responsibility and commitment of an employer may well be to provide the opportunity for their employees to excel.

Organizational performance

Peak performance for the organization means learning, identifying, and managing the potential of all the individuals involved--mixing them in just the right way and at just the right time to elicit optimal productivity. It may well be that the primary responsibility of employers and organizations is to provide opportunities for the people and teams within them to excel. They create environments that foster learning and performance conducive to success, recruit and retain the right talent to match their chosen mission, develop new business opportunities, and provide other attributes that support peak performance of individuals and project teams.

Performance portfolios

The tracking and recording of performance create a continuously updated professional and personal profile for every individual. Management systems and standards make this information fully portable, enabling the individuals to take it along wherever they go and use their skills, knowledge, and performance histories to assist them in everything from securing new places on project teams to matching compensation and learning to creating project teams. However, the information is kept confidential through extremely robust and unambiguous security and privacy measures.

The Impact on Learning

Performance: The measure and the means of learning

Performance-based learning is the result of a transition from "teaching by telling" to "learning by doing," assisted by technological and human coaches providing the low-level and high-level support. Learning is facilitated through technology (such as simulations and augmented reality) that lets us participate fully in the experience without risk or expense.

Learning by doing

Learning by doing predominates as methods such as simulation, performance support, and augmented reality become the norm rather than the exception. We have known for a long time that people learn best by doing. There's something about plunging right in that accelerates our grasp of new skills. Simulations that let us behave as though we were really there move learning to the verge of performing. Flight simulators that capture the knowledge of the best pilots let the student fly through dangerous weather without risk. Physicians in training perform operations on authentically behaving and reacting "virtual patients" who are indistinguishable from the real deal. Teachers now focus on mentoring, motivating, creating simulated crises, showing how failures are attributable to poor communication or lack of foresight, and identifying areas in which the teams excel or fall short.

Augmented reality provides augmented performance

Virtual and simulated reality is replaced by augmented reality technology. Instead of simulating an environment, the real one is augmented with overlays and additional inputs of information and knowledge. For example, a surgeon is guided by augmented reality through her first use of a new surgical technology and is able to perform with mastery. The augmented reality might include something like an "advanced deja vu" retinal projection This would enable her to perform the operation with full competence by seeing, feeling, hearing and smelling not only the "real" reality, but also five seconds into the future via the augmentation that has been overlaid on top. This technology would be fully adaptive, in real time, to the surgeon, the other professionals present, and the patient, responding and adjusting constantly as it monitors all the inputs of their vital statistics, movement, and medical equipment.

Frequency of repetition fades; so do the old "basics"

Repetition and mastery as ways of achieving excellence are being replaced by unique solutions to each problem. As the frequency of performing a given task the same way drops toward zero, the time between learning and applying what was learned increases, making fixed and pre-determined learning virtually useless. Various forms of performance support and just-in-time delivery of just the right information resolve this problem. Instead of "know-what" (facts and figures) or even "know-how," it is "know-why" that emerges as the most critical skill set for adults to have. The new basics of education and training shift to higher-order skills and knowledge that are, perhaps most surprising and valuable of all, highly transferable. These new basic skills include innovation, problem solving, creativity, analysis, diagnostics, planning, and the ability to capture and articulate the results of such knowledge work in order to share with others.

Innovation requires learning to learn, all over again

Innovative new processes and technology require innovative thinking. Learning whole new ways of doing things means un-learning previous ways, abandoning conventional wisdom, and changing well-established habits. Learning therefore becomes a "subject" and skill that can itself be learned and continuously improved. It is one of the new basic skills of the future.

Learning is dissolved into working and performing

Learning and performance-support technology, combined with the ubiquitous infrastructure connecting every person, place, and thing, allows learning content to be supplied in micro-quantities "dissolved" into the flow and context of the work being performed. Just as technology fades from our conscious awareness, so does learning become embedded in almost all aspects and all times of work and life. This life-long learning more closely resembles the continuous intake of oxygen by breathing than the intermittent intake of food by eating.

Performance support requires performance learners

As performance support becomes the norm for most jobs and tasks, it is possible to deal with the increasingly frequent situation of everyone being a novice. Drafters and cartoon animators need to become 3D modelers, hamburger flippers need to become food processing managers, and cashiers need to become customer service experts. Performance support not only lets people master new technologies, it helps them accommodate innovative processes that require whole new ways of doing something.

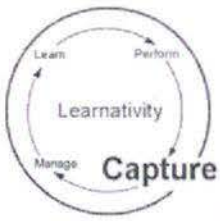
Exponential curves are deceiving

Most of us have never experienced an exponential increase. For the longest time at the beginning, there doesn't appear to be much change at all, and later, when there is some noticeable change, it seems to be very linear. In the early years of the new knowledge-based economy there were plenty of detractors who noted this apparent lack of performance results. However with every tick of the clock an exponential curve gets ever steeper, ever faster, and in the case of the new knowledge-based economy, productivity and results appeared unexpectedly to start shooting straight up.. Stepping back, we see that the evidence showed that the rate of increase was exponential, and we realize that this phenomenon was actually highly predictable.

As organizations cycle through the knowledge creation and learnativity spiral ever faster, we are poised on the verge of experiencing 5000-fold gains in learning and performance, as we did in the Industrial Revolution. However, this time the cycles are measured in seconds, minutes, and hours rather than years, decades, and centuries.

Points to Ponder

Working & Learning	How can the ability to "think outside the box," to innovate rather than refine, be identified, cultivated, and rewarded? With greater integration of work and learning, how should work be defined for purposes of compensation?
Individuals	• Short of joining an organization for life, how can individuals "keep" the fruits of their labors, since in the knowledge economy that is what they have to sell? What is it worth to know what *not* to do? Is cognitive readiness the ultimate goal for the workforce?
Teams	*What are the incentives organizations can offer to encourage peak performance?* When team performance proceeds seamlessly, how can individual contributions be recognized?
Organizations	*How can organizations promote learning as a way of life and the innovative thinking it stimulates?* How do we make information and knowledge an explicit measure of performance?
Policy & Practice	*The metric for learning will increasingly be its effectiveness at improving human performance. Many of the current policies are based on a metric of learning in and of itself, such as how much an individual "knows" on the basis of memorization of facts and figures or the performance of set routines, both of which are increasingly obviated by technology and the ubiquitous access to information anytime, anywhere.* *How will new performance metrics be developed and implemented?* *Who is responsible for this?* What are the implications of a compentency-based approach for credit, credentialing, and financing systems? What incentives and supports might be put into place to expand learning and performing for those in low-skilled, entry-level positions? How can policies and practices work to better transform the recognition and reward of workers from measurements of how much they do and how hard they work to how productive they are at creating the new knowledge and better ideas that lead to sustainable and scaleable success? How to you reward someone for thinking?



Capturing Knowledge:

Imagine.....

- *All the information you receive truly informs you. It is neither redundant nor superfluous. It is just what you need, when you need it, and it causes a change in what you thinkl or do.*
- *Continuous and automatic knowledge capture happens dependably.*

The most valuable natural resources of the new knowledge-based economy are the know-how and expertise trapped in the heads of best performers. Like other natural resources, this knowledge has no value until it is extracted, refined, and put to use.

The goal is to convert what's second nature to an individual into a form that can be shared with others in conversation, a model or simulation, illustrations, the written word, or other means. Moreover, we automatically repackage knowledge and deliver just what a learner needs to know, no more and no less.

> *"Information causes change; if it doesn't, it isn't information."*
>
> Claude Shannon
>
> "You are sitting in a chair" is not information. "The person sitting beside you has an infectious disease"-- **THAT** is information!
>
> James Burke

Information redefined

Information informs. Otherwise it is just interference or noise competing for your all-too-scarce and precious time and attention. Information resides in many varieties of media: graphic, audio, anything that you perceive that has value. A painting is information, a concerto is information, a recorded conversation is information, experience is information.

Today	Tomorrow
Mega Content Containers	Information Objects
Keywords	Metadata
Static Content	Dynamic Content
Proprietary Authored	Standards-based Interoperabilty
Power Publishers	Self-Publishing

AT A GLANCE

- Rapid, robust and rigorous extraction of what people know (tacit information) is converted into readily sharable, small chunks of reusable and manageable information objects.
- Simulations are readily available for all appropriate applications and situations.
- Technologies enable the routine and rapid development of affordable, adaptive environments and content that are robust and reliable.

Effective capturing of knowledge requires:

- ***rethinking*** *what constitutes information*
- ***chunking*** *information into tiny pieces*
- ***labeling*** *the pieces (or "objects") with descriptors ("metadata")*
- *adopting common* ***standards*** *for connecting the pieces*
- ***profiling*** *the needs of the learner*

The Vision

Information causes change; if it doesn't, it isn't information.

Claude Shannon

"You are sitting in a chair" is not information. "The person sitting beside you has an infectious disease"-- THAT is information!

James Burke

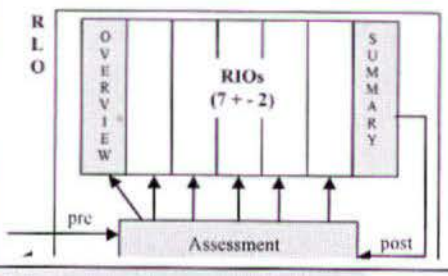
Chunking information into small, reusable objects

Size matters: Smaller is better. Before digital convergence, learning and information were usually trapped in oversized containers, designed for delivery to many people at once in the name of efficiency. In this assembly-line style of learning, courses came in one-hour chunks, off-site workshops in one-day chunks, and an MBA was only available in a two-year package. People had to plod though irrelevant information (noise and interference by our definition of information) in order to get at what they needed to learn, solve the problem at hand, and be productive. It didn't matter that they already knew or didn't need to know most of it. You got whatever other people decided you needed, when they decided to make it available, and packaged the way they wanted to deliver it.

With digital convergence, knowledge and skills needed to be taught in self-paced, media driven formats such as the Web. The reusable information object strategy addressed this problem, necessitating a shift in how content was designed, developed, and published.

CISCO SYSTEMS RLO MODEL

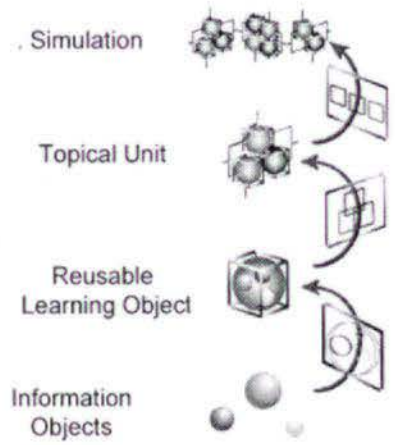
A reusable learning object (RLO) is a collection of seven plus or minus two reusable information objects (RIOs) that are grouped together to teach a common job task based on a single learning objective. In order to make the collection of RIOs into a complete *learning experience* or "Lesson," an Overview, Summary and Assessment are added.



Information objects: Knowledge building blocks

Breaking knowledge down into information objects, the smallest useful chunks of information, frees it to be used again. Think of this as creating and assembling Lego™ blocks. Whether you're assembling a bridge or a house or a spaceship, you use the same Lego™ pieces. Similarly, personalized learning can use – and re-use – the same content or information "objects." Using these as the basic building blocks, the just-right assembly of personalized learning content can be easily created to form a "learning object." Depending on the amount of content required for the individual, these can be further aggregated in a hierarchy of these assemblies or learning objects nested within each other. The Cisco Systems example on the left shows their implementation of this powerful model. As with their Lego™ counterparts, these can all be disassembled and reused again and again to create entirely new and different learning experiences, tailored exactly to the people who need them.

The power of this dynamic, adaptive assembling of information is equivalent to Eli Whitney's invention of interchangeable parts. Information is rendered reusable, interchangeable, durable, accessible, and affordable



HIERARCHY OF INFORMATION OBJECTS

The microtization of information by having it all available for selection and filtering from a common pool of small stand-alone information objects enables the creation of truly effective information (that which informs) and lets us have it "just right." The power of this dynamic, adaptive assembling of information is equivalent to Eli Whitney's invetntion of interchangeable parts. Information is rendered reusable, interchangeable, durable, accessible, and affordable.

Metadata

Metadata enables us to assemble learning objects automatically. Metadata is information about information. A map provides metadata about geography. It's tough to navigate the World Wide Web because it *lacks* metadata. Being without metadata is akin to trying to find a house when someone's taken away all the street signs, or to prepare a meal from cans that have no labels. Metadata is the full and rich set of information you and technology need in order to find, filter, select, and combine the information that is out there.

For a system to assemble learning objects automatically, it needs to know what each object contains. We tell it what's what by tagging each object with descriptive metadata.

Subjective and objective metadata

Metadata comes in two flavors: objective and subjective. *Objective metadata* is factual information, most of which can be generated automatically – things such as physical attributes, date, author, operational requirements, costs, identification numbers, and ownership. *Subjective metadata* is the more varied and valuable attributes of an information object determined by the person or group who creates the metadata. The labels on the cans are objective metadata; your opinion of the product, or whether it worked as well as a fresh ingredient in your favorite spaghetti sauce, is subjective metadata. With new technology that can extract and recognize these attributes, it is possible to find, combine, and use not only text-based information but also a person's face, a sound, a smell, a shape, or "things like _____". Imagine the possibilities . . .

As personalization becomes the key element of learning, subjective metadata becomes increasingly important. The value of the chunk goes up as its associated metadata increases in volume, richness, and completeness; the value of the chunk also goes up as it approaches its smallest potentially useful size.

Gathering metadata isn't necessarily labor intensive

Technology to capture metadata, especially objective, uses advanced pattern recognition to automate the categorization, cross-referencing, hyperlinking, and presentation of information, virtually eliminating the need for manual labor for this part of the process.

The Vision

Imagine this...

Start with a generic flight simulator template. Have access to repositories of reusable information objects that contain such data as terrain maps, specific aircraft instrument panels, laws of flight and physics, and best practice information from recent top-gun testing and analysis. Combine these information objects with metadata that provides all the attributes of this information and profiles of the individual in the simulator, and you have a fully adaptive learning environment for a pilot. It would not only be able to simulate the flight and behavior of any given airplane, it would also provide the terrain for any location in the world and specific flight patterns and missions. It could challenge the learner with adaptive levels of difficulty, including such factors as inclement weather, mechanical failures, etc. Taken a step further and put into a real aircraft, this can now form augmented reality and performance support, not just simulation.

Now imagine that these simulator templates, this type of reusable information and this metadata, are all readily available for literally any function, job, or task you can name.

Assessment

Working with people means relying on metadata about them. When metadata isn't available, colleagues don't know how to take advantage of the learner's expertise. Organizations aren't able to make rational job assignments and fail to reward knowledge of particular value. Hence the need for assessment and certification. Assessment and certification make explicit what learners know and don't know, enabling learning management systems to help fill in the gaps.

Intelligent agent technology maintains dynamic mappings between student test results, certifications, and skill requirements to ensure appropriate choice of assignments, hiring, and automated professional improvement plans and strategies for both individuals and teams. When assessment is an automatic, ongoing aspect of individual and team performance, it is possible to construct integrated, seamless education and training that increases productivity on all fronts. It allows cost-effective training to be effectively managed, tailored to the needs of individual learners (personalized) and to the context of working and performing.

Content-on-demand

Storing all available information objects and all their associated metadata in multiple repositories and managing them with a content management system makes all content readily accessible from a virtual single source. There are actually multiple repositories, but because everything from the information objects to the metadata to the architecture is based on accredited and open standards for interoperability and reusability, all these repositories can be accessed and managed such that they are available as one enormous "pool" of content, information, and metadata. Verification and validation tool suites and "underwriter laboratories" function to certify the quality and reliability of objects. All the metadata and information objects you would ever need are stored in a practical repository of reusable, verified, and validated instructional objects that conform to federal mandates, and include payment mechanisms to reimburse authors.

Simulations get real (available, that is)

Common, affordable, easily created simulations are published for almost any situation, job, and task. They are adaptable to the level of the individual, and replicate any known (current) set of data on such things as geography, terrain, weather conditions, equipment, etc. They can also simulate imagined or possible future scenarios. Dynamic content simulations include behaviors of other virtual people in the simulation and full consequential results. Multi-player simulations allow the addition of other real people in the same simulation, and this is scaleable to include large numbers of individuals (thousands) to be involved in the same simulation (thus making this more of an augmented reality than a fully virtual one). Once the unique domain of high-risk professions such as pilots and emergency response teams with large budgets, simulations are now easy and affordable due to a plethora of new authoring tools.

The "*ABILITIES*" list of content enablers:

Accessibility: access instructional components from one remote location and deliver them to many other locations

Interoperability: *use instructional components developed in one location with one set of tools or platform in another location with a different set of tools or platform*

Adaptability: *tailor instruction to individual and situational needs*

Reusability: *incorporate instructional components into multiple applications*

Durability: *operate instructional components when base technology changes, without redesign or recoding*

Affordability: *increase learning effectiveness significantly while reducing time and costs*

M. Parmentier, 1999

Standards

Widely adopted, open, and accredited standards are a fundamental requirement. Revolutionary changes do not "take off" or hit their inflection point without widespread adoption of common standards. In the case of electricity, this was the standardization of voltage and plugs; for railroads, the standard gauge of the tracks; and for the Internet, the common standards of TCP/IP, HTTP, and HTML.

Common standards for metadata, learning objects, and learning architecture are mandatory for the similar success of the knowledge economy and future. The "abilities" listed on the left illustrate the benefits of a future where these are all enabled through widespread adoption and application of open standards.

Capturing experience

When technology is able to capture and learn from its own experience and from its user, it gains a critical new power: accurate prediction of what will be needed next, in terms of information it can provide or suggestions it can offer. This is possible through the analysis of the experiential knowledge that has been collected, and it creates new knowledge in the form of patterns and profiles. It has often been overlooked that just-in-time learning and performance support are *only* possible with this predictability. Learning is now truly as adaptive as the technology itself.

Profiling learners

No system can personalize a learning experience for a total stranger. To avoid redundancy, the system must know what the learner already knows. To assemble appropriate learning experiences, it must know about the learner's past experiences, learning preferences, career goals, and more. Personal profiling enables new approaches to productivity. A profiling system that automatically identifies people's areas of expertise based on the issues they research on the Internet, the ideas in their documents, the e-mail messages they create, and the topics they follow in their knowledge bases facilitates creation of virtual workgroups, encourages communication, and reduces duplication of effort.

The more a learning system knows about a learner, the greater the opportunity to provide on-target information. At the same time, one's learning record should be at least as secure as one's credit record and medical record.

The ability to capture knowledge such that it can be analyzed, reused, and shared with others, thus developing a spiraling of more new knowledge creation, is perhaps the most powerful promise information technology can provide. The impact on learning of just-right information flowing to the right place, person and time, cannot be overstated.

Points to Ponder

Work & Learning	• *Knowledge creation, the capturing of what people know from their experience, their thinking, their observations and their learning, is not currently on many job descriptions in the workforce.* • *If the requisite for the knowledge economy is being able to capture the knowledge of everyone, given that everyone has knowledge to contribute, then expectations, behaviors and roles will have to change dramatically.*
Individuals	• • *Capturing the knowledge of individuals will necessitate the restructuring of fundamental systems such as rights of privacy of personal information, ownership, recognition, and payment for intellectual property.* •
Teams	• *Who owns content?*
Organizations	• *How does any organization determine the right allocation of resources for converting, capturing, and indexing (creating metadata) for information that already exists, balanced against the return realized on this investment?* • • *Will this new form of wealth (knowledge) be hoarded by corporations, or will there be grand alliances and mergers - mega businesses and brain trusts.*
Policy & Practice	• • *What are the public and private sector roles in developing, maintaining and implementing common standards for metadata, learning objects and learning architecture to assure access, interoperability, adaptability, reusability, durability ana affordability of learning?* • *How can the investment of organizations, state and local governments, or other entities in knowledge and information be secured for return-on-investment? How can such investment be encouraged?* • *Who will write the "Learner's Bill of Rights?"* • *What public policy questions regarding intellectual property rights are raised by the envisioned changes in technology and adult learning?* •

Managing

Imagine.....

- *There is a ubiquitous, transparent, standards-based management system and infrastructure.*
- *Hindsight is available as foresight, and every decision you make, big or small, is the best one you could make.*
- *Every project is automatically managed for peak results.*

All the best technology, content, and metadata in the world are virtually worthless until they are well managed and put into action. Action is worthless unless it is well managed and directed towards solving a worthwhile problem. Almost any work can be seen as a series of continuous decisions: what to pay attention to at that moment, what direction to turn, what question to ask, what technique to use, etc. The ideal, of course, would be to make every one of these decisions the right decision for the situation.

We used to think this was possible only in hindsight. However, in the new economy, all the information, resources, people, and technology function within an environment where our existing hindsight is continuously and thoroughly mined and managed. This creates new knowledge, which can be captured and added to the overall knowledge or information pool, where it is put it into action through the management infrastructure.

Now all the right information can be provided to all the right people at all the right times and in all the right contexts, which enables the right decisions to be made, every time. "Right" in this case is defined much as it always was: the best of what is known at the time to produce the desired result, based on the situation and the information that is available. The difference between then and now is that both the situation and the information have changed. Both are radically improved, so that "best" continuously becomes a whole lot better.

Today →	Tomorrow
Independent Patchwork	Networked Learning Infrastructure
Proprietary	Open Standards
Disconnected	Connected
Help Yourself	Delivered to You
Figure It Out	Let Me Help You Decide
Hindsight	Foresight
Good Guess	Best Decision
As Good as You Can Remember	As Good as Possible

AT A GLANCE

- In a world characterized by plentitude and abundance, human attention has become the most scarce resource. Management of information, learning, and performance works to optimize people's time and attention.
- Open standards enable the critical abilities: reusability, interoperability, discoverability, and manageability itself.
- A global and national learning management infrastructure provides the critical connections between all things and all people.
- Making the best decision every time becomes a reality within a learnativity management system that provides continuous decision support.
- Managing information means getting it all "just right": putting together just the right mix in just the right way and delivering it just in time to just the right person, requiring a simultaneous focus on the content itself and on the people who will be using it.
- The ability to accurately predict what someone needs to know or do unlocks the promise of continuous peak performance.

Knowledge resource management

Given that all four of the learnativity elements--performing, capturing, managing and learning -- create knowledge through the effective utilization of resources, it is useful to think in terms of *knowledge resource management*. This is the underlying process and infrastructure required to enable the scenario described above to exist. It forms the transparent and ubiquitous foundation for effective working, learning, capturing (of knowledge) and performing. The management infrastructure lets us create and share knowledge by connecting everything to everything, everyone to everyone, and managing the resultant intersections and connections. This is *not* a simple set of point-to-point connections. It is a complex, interwoven set of dynamic and adaptive relationships that are constantly evolving, growing, and changing. In this process, additional new knowledge is created, spiraling every upward and onward.

Management technology and infrastructure: A mirror?

An increasing body of evidence suggests that it is not entirely coincidental how much more this knowledge resources management infrastructure resembles a living organism, the brain in particular, than it does a technology or a machine. It may well be that as we create and evolve our technology, it increasingly reflects its creators.

Project perfect

Imagine watching a time-lapse video of a large construction project happening at peak performance throughout. As you watch the literal blur of materials being delivered to just the right spot on the building site, picked up by just the right tradesperson who puts them into just the right locations, you are aware that there is an amazing complexity of planning and management that had to be in place. Much of this relies upon forecasting and scheduling based on highly accurate information from previous projects to make everything happen so precisely. All of this happens because there is a well-managed supply of the right information to the right people at the right time, and a system for making decisions dynamically and in real time. If the concrete truck is going to be 35 minutes late, the perfect project can dynamically determine the best adjustment of all other activities so there will be no delay or disruption, and update the schedule accordingly. The result? Continuous peak performance: a quality building delivered just as planned, right on time and on budget. The entire project information and decision flow is traced and recorded, including a detailed post analysis of lessons learned and how it could be improved, and all this new knowledge is captured and cycled back into the system to be managed further and made available for the next project, or even for ones currently underway.

In this scenario, skilled and knowledgeable adults are still leading and making the critical decisions; however, they are continuously guided and given just what they need to make the right ones. *This* is the function of effective management of information, adults, technology and learning.

Augmented, not artificial, intelligence

The notion of augmented intelligence does *not* suggest that we are seeing the evolution of some alternative or artificial form of intelligence. What we *are* seeing is the very much welcomed and needed *augmenting* of our own intelligence. Nowhere is the need for this extension and enhancement of our intelligence more apparent and acute than in managing the overall fusion we are calling learnativity.

Decision management

With the microtization of information, individuals need to make more decisions quickly and well. To keep from being overwhelmed by the superabundance of choices available, workers/learners/managers rely on the learning infrastructure to provide decision support through intelligent technology that makes the lower-level decisions so people can focus on the broader picture of solving the problems they are currently facing.

The learning technology and information infrastructure enables all this to happen quickly and effectively, in the background without conscious awareness. Just as everyone the world over relies on a dial tone to connect us through the telephone without giving a thought to the complex technology behind it, a learning infrastructure in the background enables us to put together customized learning packets and performance support tailored down to every detail.

Pattern Template?

A pattern template is something like a personalized paint-by-numbers canvas for every task. The individual defines the attributes of the scene to paint, and everything else comes with it: the canvas with an outline of the figures, exactly the right colors, the brush, the solvent, even the cleaning rags. The learner refers to the numbers to place each color exactly where it belongs, and creates just the finished product he or she has chosen. Now imagine that the pattern components are all infinitely reusable and managed such that you can have the perfect paint-by-number canvas to solve any problem--on demand!

Assembling information is the first task of managing

Capturing knowledge involves making it explicit, recording and storing it in just the right sized small chunks or information objects. This enables all these information objects to be managed for reusability, discovery, reusability and assembly into just the right size learning objects adaptive to the individual needs and situation. The infrastructure in the knowledge economy tracks pre-identified information and puts it together on demand, tailored to the recipient's immediate need and personal characteristics. Delivering just the right mix of digital information, physical classrooms, job descriptions, and work processes, the infrastructure creates packages of explicit knowledge (learning objects) to be used by the individual for specific purposes.

Managing the patterns of knowledge with templates

Managing knowledge also means using pattern templates that reflect predictable patterns gleaned from previous observations of usage, behavior, and learning to deliver exactly what's needed and when—no more, no less. Pattern templates capture the underlying principles and best practices of a particular task and use these to deliver precisely the right learning objects at the right time. In this way, the pattern template acts as an intelligent agent, selecting just the right content and serving it up at just the right time, thus guiding and managing the performance of the person receiving this input. A pattern template allows the user of a new version of a technology or an entirely new process to function at full competence the first time and with *no* prior training. Such management of information and process ensures that people are always choosing and using the right tool for the job, with no extra effort on their part. At all times, they are assured of using just the right combination of technology and technique to yield their peak performance.

The Vision

Imagine knowing that you were always using every appropriate feature available and using it just right! This applies to everything from your car, to your camera, to your computer, to every other tool or technology you use. What used to be a user manual is now a well-managed adaptive performance support system. It knows your precise level of use, understanding, and experience, and through a pattern template it provides just the right learning object delivered without repetition or omission, at the time it is needed as you use the program.

> *"The biggest innovation is in the use of technology to improve the effectiveness of knowledge sharing".*
>
> Steve Mecklenburg, 1998
> CKO, A.T. Kearney

Dynamic management of content puts the learner at the center

When content was static, we literally knew what page we were on, and we could all be taught together. A book had the same words on page twenty, no matter who was reading it, no matter when it was being read. In the new dynamic information environment, truly dynamic content is continuously assembled on demand or even slightly beforehand, based on the ability to accurately predict who, what, when, and where the information is needed. Dynamic content meets the particular needs of the individual at the moment of need, and is presented fully adapted to fit the learner's unique background, learning style, and history.

With the advent of such things as digital paper (actual sheets of paper, embedded with chips that display changing information as needed or directed), the learner is at the center of a world of information delivered at will and adaptively designed for him or her alone.

The infrastructure delivers it all "just right"

Successful information management makes it possible to deliver just the *right* information, in just the *right* amount, to just the *right* person in just the *right* context, at just the *right* time, and in a form that matches the way *that* person learns. When this happens, the recipient can act—immediately and effectively.

Information delivery is a kind of orchestration, taking into consideration the particular person's learning style, preferences, and technological facility, as well as the task at hand. In musical orchestration, using just the right notes, and only the right notes, is critical for success. In management, relevance is the critical characteristic of just-right information in just-right amounts, and the infrastructure does the filtering necessary to deliver just what learners need (no more, no less) to make better decisions. In music, the right notes are pointless unless they come at the right time. In management, delivering the information right when it is needed (even just before the need is felt) is crucial to project success.

Predictability: The previously missing capability

In order to provide information "just in time," it is necessary to predict what people will need just before they need it, otherwise it isn't possible to know what to deliver or when! Intelligent technology that learns as it is used supplies much of this predictability. It anticipates the needs of the user based on previous behavior. This technology lets us anticipate (and meet) higher-level needs before they are felt, increasing productivity.

Choice is the challenge

With the microtization of information, one of the biggest constraints on learning is the need of the individual to make more and more decisions quickly and well. Decision-making will need to be treated as more of a science than an art, and learners will need opportunities for practice. Strategies for prioritizing choices, and determining which choices can be made by technology, will become a focus of learning.

Learning presupposes agreement

Common standards for "chunking" knowledge (regarding interoperability, exchange, distribution, and access) will be necessary to maintain pools of content from which to draw knowledge that can be used to increase productivity. The enormous advantages of just-right learning will not be possible without careful and continual development of widespread standards for the creation and management of information objects, learning objects, and templates.

New roles for teachers and trainers

Learners in the future are supported by technology, but they still rely on information received through direct people-to-people contact and implicitly received through experience and application. The new teachers take advantage of dynamic content and the learning provided transparently by the information infrastructure, and spend their time doing what even the most advanced technology cannot: stimulating higher-order thinking, seeing new patterns, making new connections, leading communities, guiding, coaching, encouraging, and motivating.

Personalization raises issues of privacy and permission

How well dynamic content can be created depends on how well the creator knows the audience—the individual learner. For example, personal interaction (augmented by technology) remains a primary force in learning, and no system can introduce a learner to appropriate people without knowing what they have in common. The more information one shares with the system, the more likely a good match with a learning partner can be made. Safeguards must exist to protect privacy and allow people to feel safe sharing information about themselves, thus maximizing their potential effectiveness. Establishment of these safeguards (such as the conditions of permission) is needed to encourage people to reveal themselves optimally (just right for them personally).

The Impact on Learning

Skills and knowledge inventory

Ongoing assessment and capturing of information, situations, and people—their skills, preferences, abilities, and potential—is a management function of the new economy. Ideally, managing a project means solving an equation for each team member: What the member needs to know minus what he or she already knows equals what needs to be provided. For this equation to be solved, individuals are responsible for providing and authorizing the use of information about themselves in increasingly greater detail. Optimal assessment takes place on a micro level, rather than as a rough sort: we may not need to know if the person has a degree in engineering, so much as if he or she has a certain set of engineering-related skills (which may well be found in someone with a degree in liberal arts or no degree at all). Without this quality of assessment, just-right learning isn't possible.

The ideal infrastructure offers ubiquitous access with unambiguous privacy.

Rights management

Issues of trust, fairness, responsibility, confidentiality, and attribution require common understandings. People who are unsure about letting themselves be known (their learning styles, strengths and weaknesses, historical problems, personal preferences) are less able to receive knowledge or impart it. People who wonder if they will get credit for their efforts are less inclined to share. Ultimately, it is the individual who decides how much of himself or herself to make available, and thus it is the individual who determines how well the learning infrastructure can work.

The future depends on creating a climate in which the players feel secure that personal information will never redound against them, that learning objects containing their ideas, words, etc., will give credit where it is due (and recompense when appropriate). When access to information (books, music, technologies) is controlled by more than just a few, the issue of responsibility for the use of this information is compounded. Knowing and respecting the rights of others (and one's own) will be an important theme underlying all learning in the future.

In the past, management was a job for a select group of people. In the future, the management of knowledge and resources is one of the new basic skills for everyone. It becomes as constant and as natural as breathing.

Work & Learning	What are the roles of the public and private sectors in creating "facilitators" of learning? Under what auspices do we create a new, shared vision of learning?
Individuals	• Everyone becomes a manager of his or her own time, attention, and learning. Everyone also inherits the responsibility for all these. How do we ensure that this responsibility is understood and accepted?
Teams	As project teams become the predominant form of working and learning, and become more like single organisms, how do they learn? How can this be understood and improved?
Organizations	What changes may be needed in tax and regulatory policies governing not-for-profit and for-profit education and training providers as the process of learning "anytime, anywhere" blurs state and national boundaries?
Policy & Practice	How do we ensure that the necessary technology infrastructure for just-in-time access and delivery is available? What level of investment is required? What is the mix of public and private sector investment? Is there a need for a Learner's Bill of Rights to deal with privacy protection, sealing of records, correcting errors, security of information, encrypted transmission, and other such matters?

Learning

Imagine.....

- *You can learn 100 times faster and several orders of magnitude better than you could yesterday.*
- *We understand how teams of people learn, and they do so as quickly and effectively as individuals*

Learning is a skill, a skill that can itself be learned. It's an open-ended process of discovery and improvement available to individuals who are skilled in acquiring, creating, sharing, managing, modeling, measuring, and applying knowledge. Learning is a process of higher-order cognitive skill development including decision-making, problem solving, teamwork, metacognition, pattern recognition, critical thinking, and situational awareness. It is part of the process by which organizations create and nurture intellectual capital and build competitive advantage

Learning uncovers tacit information held by the individual and makes it explicit so that it can be shared and expanded. It occurs alongside and within the contexts of capturing, managing, and performing, all of which repeat at ever-higher levels to create knowledge. Learning is seen as a matter of know-how, know-what, and know-why.

Today	Tomorrow
Technology Training	Performance Improvement
Classes for the Masses	Personalized Learning
Sage on the Stage	Guide on the Side
Instructor Centric	Learner Centric
Training when Scheduled	Learning on Demand
Time to Train	Time to Perform
Teaching by Telling	Learning by Doing
Subject-based Learning	Project-based Learning
Learning to Work Technology	Putting Technology to Work
Know-what	Know-why
Basics = 3R's	Basics = Higher Order Thinking
Skills & Information Mastery	Inquiry, Discovery & Knowledge
Re-active	Pro-Active

AT A GLANCE

- Learning is a means to an end: **Peak performance.**
- Learning is maximized in effectiveness by the increasing arrival of **personalization**: getting it all just right for every unique individual.
- **Dynamic** and **adaptive** learning resources are the factors critical for success.
- Learning is ***the*** skill to assure success in the future and will be significantly augmented by adaptive learning technology.
- The learner is increasingly in **control** and at the **center** of learning.
- **Project-based** working and learning will predominate.
- Learning is a social skill comprising:
  - know-**how** (learning by doing, with others)
  - know-**what** (cognitive skills as well as facts)
  - know-**why** (relevance and motivation)
- Most learning occurs **informally** and this will be increasingly the focus of attention.
- When information is available from so many accessible sources, learning is less a matter of mastery of facts than it is a function of effective **inquiry**.

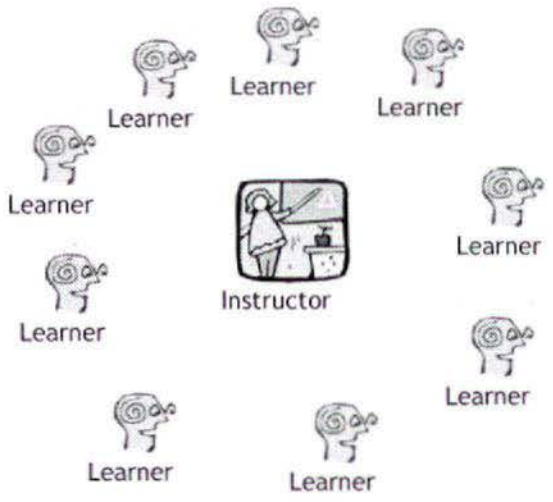
Automated Records Management System
Hex-Dump Conversion

The Vision

Know-how is learned through action, through doing, through performance.

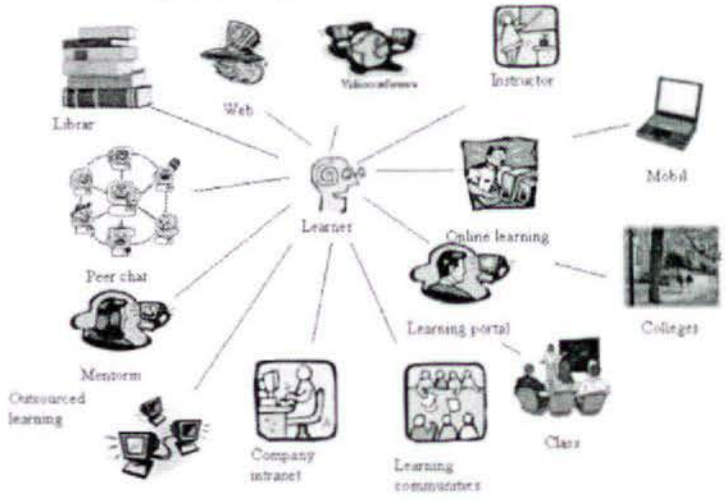
How we learn

Know-how, or actual skill, derives from the individual's experience or ability to utilize cognitive knowledge in response to real-world problems. It is learning acquired through action, through doing, and it becomes the dominant feature of knowledge creation.



Performance: The measure and the means of learning

Performance is facilitated through technology (such as simulations) that lets us participate fully in an experience without risk or expense. Performance-based learning is the result of a transition from "teaching by telling" to "learning by doing," assisted by technological and human coaches providing the low-level and high-level support.



The Vision

"Learning is the new form of labor . . .. Learning is the heart of productive activity."
Shoshana Zuboff,
'In The Age Of The Smart Machine'

Personalized learning makes excellence the norm

Technology gears learning to the individual. Technology delivers dynamic information to match the individual's unique learning style, just when it is needed, and fades into the background of the individual's conscious awareness. Learning becomes adaptive, learner-centric, and democratized, allowing everyone to participate because content can be personalized to anyone's current level of education, experience, and skill.

Individualized learning once produced fine craftsmen. The master taught the apprentice. Only a few had the time or opportunity to gain the depth of knowledge needed to achieve excellence, and excellence was rare. Then industrial-age minds saw scale economies in teaching many people at once. Learning became institutionalized, and the individual either adapted to the teacher and the standard material being taught or missed out. Now, as information from a huge variety of sources becomes available, learning again becomes individualized, and again produces excellence.

Relevance

Learner-centric learning focuses on relevance, personalization, and timeliness. Relevance is a prime motivator of adult learning, probably the only characteristic sufficiently compelling to keep the learner coming back for more. Providing an array of learning vehicles also enables the learner to select venues optimal for his or her learning style, and a mix of different learning activities packs a bigger wallop than relying on just one approach. When information is delivered in personalized packets just when it is needed, the individual can put it to immediate use.

Group learning

Just as individuals learn, organizations learn. Project teams resemble biological organisms more than machines, and each learns as a single entity. Project teams call on technological performance support to track and organize their process and smooth interpersonal communication, letting them concentrate on accomplishing the task.

Time spent on learning is revered as the most productive time of all, leveraging the organization's intellectual capital. Organizations understand that the people chatting in the coffee room or the person having an "aha" revelation of how to solve a vexing problem might well be doing the most important work of anyone.

Learning *all* the time

Increasingly, technology focuses on informal learning. As dynamic performance support technology lets us take advantage of learning opportunities anytime, anywhere, organizational resources are directed more toward supporting the ways that people learn best, and less toward "one-size fits all" education strategies.

The Vision

The magic is in the mix

The magic is in the right mix of human and technological learning assistance. When individuals and teams use higher-level cognitive skills to accomplish tasks innovatively, they also become increasingly good at working with both people and technology to achieve peak performance.

The "what" of learning become higher-order cognitive skills such as decision-making, problem solving, meta-cognition, pattern recognition, critical thinking, situational awareness, and teamwork.

What We Learn

Know-what, or what you know, is generally thought of in terms of cognitive knowledge, acquired through formal learning and recognized through testing and certification. It consists of "stuff": facts, figures, and specific ways of doing things.

The "what" of learning changes in the future to higher-order cognitive skill development that includes decision-making, problem solving, meta-cognition, pattern recognition, critical thinking, situational awareness and teamwork.

Know-why is the carrot that motivates the individual to seek peak performance.

Why we learn

Know-why is the motivation that spurs the learner, the carrot that leads him or her to seek peak performance, personal and professional. It is the deeper knowledge about the cause-and-effect relationships underlying a discipline or practice.

Personalization of learning so that it appeals to all learners regardless of learning style, history, skill level, etc., is a major source of motivation. Learning is fun because it can be understood and put to use immediately, it doesn't waste time on repetitive detail, and people have what they need to go to the next step as soon as they need it.

Two characteristics of society produce a new focus on learning for the individual. First, all products, services, and work converge toward customization and uniqueness, reducing the number of repetitive tasks and the frequency with which the same task is performed. Second, learning and performance technology provide just the right content and information at the moment of need, obviating the need for the performer to know low-level details and make low-level decisions. These two conditions enable and require the performer to focus on higher-order thinking skills such as decision-making, problem solving, innovation, and creativity to achieve better results. The learner is motivated and curious, continually thinking differently and exploring new applications.

Points to Ponder

Work & Learning	*What will it take to change the common understanding of learning, held by individuals and organizations alike, to encompass the "way of being" perspective?* *How does learning transition into business and economic models such that it is indefinitely sustainable and scaleable?* Given unlimited resources, how would you teach? As learning "anytime, anywhere" begins to change the expectations and assumptions of our economy and society, how do we insure the closing of the digital divide between those who have access to technology and those who do not? How should current ways of measuring learning and organizing instruction such as courses, semesters and credit hours be changed to support and encourage new forms of learning?
Individuals	How will individuals access the resources they need to learn what they want to learn? If these resources are teachers, how will their time be used? How can we rapidly expand the use of technology for training and re-training the IT workforce?
Teams	*What does it mean to say that a group "learns"?* How does team/group learning coincide with personalization and the varying needs of the individuals involved?
Organizations	How can organizations come to understand and respect the individual learning styles of their members, tolerating (even encouraging) activities that appear nonproductive in the hope that they will generate knowledge?
Policy & Practice	How do we move to personalized learning without losing the socialization value of education? Who bears responsibility for providing access to and funding for lifelong learning? The individual, the employer, public sector organizations, governments? What are public and private roles and responsibilities in developing intelligent technology supports for learning?

BACK from the FUTURE

> *"Never confuse a clear view of the future for a short distance."*
>
> Paul Saffo, 1998

Welcome back from the future! Time is now restored to today. The future of working and learning is in the creation of knowledge, which is of course precisely what the Commission on Technology and Adult Learning has been created to do. Time is now, and time for the work and the learning that will be the Commission.

Back to Reality

So now it is time to step out of this time machine and come back from the future. Let's get real. This is all *only* a vision, *only* a dream, *only* a depiction of one possible scenario. Clearly there are others. Many alternative scenarios range from less bright to depressingly black.

We will all cast our votes with our actions, our imagination, our commitment, or our lack thereof.

The word "democratization" is not used lightly within this paper. While never a certain outcome and always fraught with opportunities for sabotage and misdirection, it has proven to be *the* most powerful and enduring model for sustained change and prosperity. In any case, there would not appear to be a choice on this point; the individuals of the world are in increasing control and we will all cast our *votes* with our actions, our imagination, our commitment, or the lack thereof.

The broad and the long view

Using the three words in the name of this Commission on **Technology** and **Adult Learning**, lets take a concluding look at each:

ADULTS:

The challenge and the solution is a human one. We are seeing people at two extreme ends of a spectrum. At one end, we see the accelerating momentum that is bringing control all the way down to the unit of one, the unique individual. This is not a reflection of selfishness but of empowerment, and along with control comes responsibility.

At the other end of the spectrum is the natural formation of these individuals into communities. In the context of adults, technology, and learning, there are two primary types of community: project teams, which form and dissolve with the projects themselves, communities of practice, where people of like working and professional interests connect and collaborate with their peers. In both cases, they create and share "community knowledge." These communities, as systems of learning and performing, prove to be highly sustainable, scaleable, transferable, and successful.

A bright future is dependent upon bright people. They are not simply the learned, who can memorize facts and figures; they are not just masters of their professions and crafts. They are instead those who are skilled at higher-order thinking, including analysis, planning, problem solving, creativity, and perhaps most important, learning. These are skills that anyone can attain and develop. These are skills that are highly transferable, sustainable, and scaleable. These are the skills that will lead to a bright future for individuals, project teams, communities, and countries worldwide.

TECHNOLOGY:

Technology is attaining profound abilities to learn through analysis, deduction, and memory of the conditions and consequences of use. The future we want is very real, and technology should augment this reality and improve our ability to work effectively within it. Replacing real experiences with artificial substitutes, as in simulations, is often useful, but we are increasingly able to have the real thing as the first and lasting experience. Yet, while increasingly adaptive, technology is not alive. It does not change all by itself. We must demand these characteristics of those who can create the innovative technology solutions we seek. We should accept and expect no less.

The combined power that is created by connecting every person, every piece of information, and every object in our world, and enabling these connections to flow freely at the speed of innovative and creative human thought is the opportunity before us. The old boundaries of time, distance, status, and location, and even the confines of socio-economic, political and racial status, are disappearing before our eyes. To be sure, new barriers and challenges are ahead. However, we are rapidly reaching the point where the technological capabilities and possibilities we have at our disposal are no longer the limits that contain us. The limiting factor is our ability to think boldly and differently enough to imagine and plan solutions and then form the resolve to execute those solutions.

Technology has perhaps had the least impact, relative to most other areas, upon learning. If we are prepared for the opportunities this presents, the results will be staggering. If not, we may miss or delay the greatest potential changes in learning, and subsequent empowerment of all people, that the world has witnessed.

Guaranteed? **No!**
Probable? **Maybe** .....
Possible? **Absolutely!**

LEARNING:

The key to unlocking all this potential brings us back to bright people, people who have the sustained ability to learn and apply the right stuff faster. We refer to this capacity as "learnativity." This is not a technology, not an activity, not a resource. Learnativity involves a continuous, swirling set of experiences traveling through the domains of learning, capturing and creating information and knowledge, managing all these resources, and ultimately putting it all to work in solving problems. This all occurs in real time, all the time. As is the case with technology, learning in the future will fade from our conscious awareness, as it becomes embedded in every product, every service, and every facet of our lives. This will take place all the time, just in time, and just right for peak performance

In light of the complex, broad and daunting task before this Commission, surely Warren Bennis's phrase, "None of us is as smart as all of us," has never been more true. Thus the creation of this Commission, a *great group* of complementary minds with an eclectic mixture of experience and perspectives to take on this great challenge.

This will not be easy. This will not be fast. It will require innovative, out-of-the-box thinking. There will be the need to both suspend disbelief and abandon previously entrenched norms, customs, and habits of our economy and culture. If this Commission can find the collective and individual strength, the commitment and the solidarity to do so, there is no doubt that this vision will be realized.

There is an opportunity matched by a need.

The future is ours to imagine, ours to create.

Glossary

Adaptive: Referring to technology and content that adjust to match the individual person and situation.

Augmented reality: An enhancement of the environment that provides learning by overlays and additional inputs of information and knowledge.

Content. What's being learned, information. If it doesn't cause change, it's not information. The challenge is how to get the right content to right person, at the right time. This involves media choice (e.g., paper versus on-screen), speed, delivery cost, relevance, learner motivation, and other factors.

Convergence: The most prevalent theme of the future, in which technologies merge to create new technologies, and professional skills merge to create new professions. Within this context, the previously disparate and independent activities of learning, working, capturing knowledge, and the management of their sum total become one activity; see learnativity.

Dynamic content. Real-time, current, up-to-the second information, delivered in response to immediate needs, and personalized to the individual.

Explicit knowledge: Know-how and information that has been expressed and is available to others; opposite of tacit knowledge.

Informal/formal learning. Formal learning occurs in a class, a seminar, a self-study course, or other environment that is generally recognized as a learning event. Informal learning is all other learning that occurs; it is also known as "working" and "living."

Information object: The smallest useful piece of information that can be used and re-used, such as an illustration, a question, a definition, a procedure, or a sound.

Infrastructure: A management matrix that enables individuals to learn with the support of technology that provides dynamic content.

Knowledge economy: An economy that is driven by Ideas and knowledge, rather than material resources; an economy in which the keys to job creation and higher standards of living are innovation and technology embedded in services and manufactured products. In this economy, risk, uncertainty, and constant change are the rule, rather than the exception. The raw resources of the knowledge economy are information, and people with the skills to continuously convert information into new knowledge, products, and services through innovative thinking.

Learnativity: A way of being that incorporates learning and working in an integrated system of performing tasks, capturing information, managing knowledge, and learning, all leading to the creation of new knowledge.

Learning. The process of gaining knowledge or information; ascertaining by inquiry, study, or investigation; acquiring understanding of, or skill, as in learning the way; learning to dance; learning the truth about something.

Learning object: An collection of information objects assembled using metadata to match the personality and needs of the individual learner. Multiple learning objects can be grouped into larger assemblies and they can be nested within each other to form an infinite variety and size. Therefore there is typically a specified hierarchy of object groupings.

Glossary

Microtization: The trend of computers and other technology to get smaller, eventually reaching the point of being virtually invisible to those using them.

Pattern template: A design for the assembly of information that reflects predictable patterns gleaned from previous observations of usage, behavior, and learning. They capture the underlying principles and best practices of a particular task and use these to assemble and deliver the right learning objects to the right person at the right time.

Performance. The goal of work related learning; productivity; results.

Performance support. Learning opportunities technologically embedded in work to provide dynamic content.

Personalization. The practice of tailoring learning content to the learner's background, style, previous knowledge, etc.

Predictive technology: Intelligent technological resources that learns as it is used and can provide information "just in time" by anticipating the needs of the user based on previous behavior.

Standards: Referring to specifications which are approved by open, accredited standards body and those related to learning. Includes those covering learner profiles, course sequencing, course interchanges, learning object metadata, etc. such as those from the IEEE Learning Technology Standards Committee (LTSC)

Skills gap: An enduring and ubiquitous characteristic of all those working in the new economy. The result of new technology and opportunity being created at a rate faster than adults can learn it. The skills gap as a ubiquitous feature of society is addressed through lifelong learning

Tacit knowledge: Know-how and information possessed by an individual that has not been made available to others. Opposite of explicit knowledge.

Transparence: The quality of technology to be useful without requiring attention or maintenance; the ability to perform a function as necessary without fuss or conscious effort on the part of the individual requiring the task to be done. When technology is transparent, the individual can "look through it" to focus completely on the task at hand.

References

Bennis, Warren. (1997). The Secret of Great Groups. Available online: http://www.druckerfoundation.org/leaderbooks/L2L/winter97/bennis.html

Bloom, B. S. (1984, June-July). The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring. Educational Researcher, 4-16.

Burke, James. (1995). Connections. New York: Little, Brown.

Chambers, John. (1999). Presentation at COMDEX '99. Available online: http://www.cisco.com.

Dede, Chris. (1995). Testimony to the US Congress, House of Representatives Joint Hearing on Educational Technology in the 21st Century, Committee on Science and Committee on Economic and Educational Opportunities.

Gelertner, David. (2000, January). Conversation cited in The Wired Diaries 2000. Wired, 69.

Gilder, George. (1999, October 4). The Brightest Star. Forbes ASAP, 29-34.

Hamel, Gary. (1996, July-August). Harvard Business Review

IBM's "World Board." (2000, January). Wired, 60.

Kay, Alan. (1971). Meeting of the Palo Alto Research Center and Xerox Corp. planners.

Kelly, Kevin. (1997), September). Wired.

Mecklenburg, Steve. (1998). Knowledge Inc.: The Executive Report on Knowledge, Technology & Performance.

Nonaka, Ikujiro. (1991, November-December). The Knowledge-Creating Company. Harvard Business Review.

Model Tee: Golf instructor underwear. (2000, January). Wired, 64.

Parmentier, M. A. (1999). A Vision of the Future Learning Environment. Brief presented at Advanced Distributed Learning Science & Technology workshop.

Saffo, Paul. Institute for the Future. Website: http://www.startribune.com/digage/saffo.htm.

Schopenhauer, Arthur. (1976). Essays and Aphorisms. London: Penguin Books.

Shannon, Claude. (1995). Cited in Burke, James, Connections, New York: Little, Brown.

Solomon, Charlene Marmer. (1999). Global Search Engine. Success, 20-21.

Strassmann, Paul A. (1999). Information Production: Assessing the Information Management Costs of U.S. Companies. Information Economics Press.

Thurow, Lester. (1999). Lester Thurow Chats about the New Economy and How Companies May Survive It. CIO Magazine. Available online: http://www.cio.com/archive/010100_book.html.

Zuboff, Shoshana. (1989). In the Age of the Smart Machine: The Future of Work and Power. New York: Basic Books.

Additional Resources

Kelly, Kevin. (1998). New Rules for the New Economy: 10 Radical Strategies for a Connected World. New York: Penguin U.S.A.

http://www.learnativity.com.
An excellent resource for recommended reading and other resources on learning, creativity, productivity and the changes that learning is undergoing today and in the future.

Merrill Lynch & Co., Global Securities Research & Economic Group, & Global Fundamental Equity Research Department. (1999, April 9). The Book of Knowledge: Investing in the Growing Education and Training Industry. California: Authors.

Nonaka, Ikujiro, & Hirotaka, Takeuchi. (1995). The Knowledge-Creating Company. New York: Oxford University Press.
The authors provide an in-depth understanding of knowledge creation within an organizational context, from which some of the concepts of the performing, capturing. managing & learning spiral were abastracted.

U.S. Department of Defense. Advanced Distributed Learning project Shareable Courseware Objects – Reference Model (SCORM) Available online: www.adlnet.org

U.S. Department of Labor. Futurework: Trends and Challenges for Work in the 21st Century. Available online: www.dol.gov/dol/asp/public/futurework/report

Vaill, Peter B. (1996). Learning as a Way of Being: Strategies for Survival in a World of Permanent White Water. San Francisco: Jossey-Bass Publishers.

Contacts:

American Society for Training & Development (ASTD)

Mary McCain
Director
Commission on Technology and Adult Learning
ASTD
703.683.8151
mmccain@astd.org

Cynthia Pantazis
Director
Policy and Public Leadership
ASTD
703.683.8153
cpantazis.astd.org

National Governors' Association (NGA)

Evelyn Ganzglass
Director, Policy Studies
Employment and Social Policy
NGA
202.624.5394
eganzglass@nga.org

Wayne Hodgins
Director of Worldwide Learning Strategies
Autodesk Inc.
415-507-579
wayne.Hodgins@autodesk.com

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:10-MAR-2000 10:39:10.00

SUBJECT: Re: Statement by the President: Digital Divide

TO: Patrick M. Dorton (CN=Patrick M. Dorton/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

CC: natasha f. bilimoria (CN=natasha f. bilimoria/OU=opd/O=eop@eop [OPD])
READ:UNKNOWN

CC: gigi e. georges (CN=gigi e. georges/OU=opd/O=eop@eop [OPD])
READ:UNKNOWN

TEXT:
You are the man. Thanks for helping us get this out.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:10-MAR-2000 18:11:58.00

SUBJECT: RE: digital divide call to action

TO: Maura.Colleton@wcom.com@inet (Maura.Colleton@wcom.com@inet [UNKNOWN])
READ:UNKNOWN

TEXT:
Put Bernie on -- if he's not available we can always think about
other folks.

Thanks!

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:10-MAR-2000 11:06:46.00

SUBJECT: Digital Divide to Digital Opportunity

TO: root@itstrategies.com@inet (root@itstrategies.com@inet [OA])
READ:UNKNOWN

TO: kay@itstrategies.com@inet (kay@itstrategies.com@inet [UNKNOWN])
READ:UNKNOWN

TEXT:
as you can see from the NASULGC speech I gave - I am flogging
the CEO Forum report.
========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D7]ARMS22488167S.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

========== ATTACHMENT 2 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D7]ARMS24488167T.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 2 ==========

========== ATTACHMENT 3 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D7]ARMS26488167U.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 3 ==========

1. Significant increases in the budget

2. Emphasis on peer-reviewed, university-based research

3. Effort to have a balanced portfolio - not only increases in biomedical research but in the physical sciences and engineering

4. Support for both initiative areas and core programs

Why

1. S&T has an important role to play in every national goal (economic growth and higher standards of living, longer-healthier lives, strong national defense, sustainable development -- growing the economy while preserving the environment)

2. Economic growth:

- Technological change is the source of productivity

- Having the U.S. be the center of innovation gives our firms a source of competitive advantage because of the importance of time-to-market. Why is Cisco and many other leaders in the Internet economy U.S. firms -- because the Internet happened in the U.S. before it happened in the rest of the world

- Ideas becoming more and more important - Akamai. Greenspan talks about weightless economy

- People - #1 constraint on growth

- Private sector going to under-invest

- Universities important part of the U.S. innovation system: VC, system of incentives like stock options, entrepreneurial culture that encourages risk-taking and tolerates failure

-

DRAFT

Proposal for a "Connected Communities" Day

As part of his National Call to Action to bridge the digital divide and to create digital opportunity for more Americans, President Clinton will be leading a New Markets trip on the week of April 9th. This trip will be designed to mobilize public and private efforts to bring "digital opportunity" to every child in every school and to under-served families and communities.

The President is setting two broad national goals:

1. **21st Century Learning Tools for every child in every school**. This will require connecting every classroom and school to the Internet, ensuring that students have access to multimedia computers, ensuring that teachers are technologically literate and can integrate technology into the classroom, and expanding the availability of high-quality educational software and resources.

2. **"Digital opportunity" for every American family and community**. This will require setting the long-term goal of making access to the Internet at home universal, expanding the number of well-equipped and well-staffed Community Technology Centers, motivating and inspiring more people to appreciate the value of "getting connected," giving adults the skills they need to use IT and to compete for jobs in the IT sector, and developing the content and applications that will help empower low-income communities.

It is imperative that America maintain the excitement, enthusiasm and momentum on this issue that will be generated by the President's trip. One way to do this would be to call for a national "Connected Communities" Day in the fall of 2000. On Connected Communities Day -- cities and towns around the country would announce concrete steps to help create "digital opportunity" for all of their children, and to ensure that more families are benefiting from the Information Revolution. All sectors of our society -- companies, foundations, non-profit organizations, tech-savvy volunteers, educators, parents, government agencies, etc. would participate.

Steps leading up to Connected Communities Day

Local level:

Communities:

- Evaluate the current status of their efforts to create digital opportunity for children and families.

- Identify challenges and opportunities that the creative use of technology could help address (e.g. shortage of workers with IT skills, need for children to meet higher academic standards).

- Use the Internet and face-to-face meetings between stakeholders to set short and long-term goals for bridging the digital divide -- and the concrete actions that could help meet these goals.

National level

- Major companies, labor unions, non-profits, etc. would encourage their employees and members to get involved at the local level, or agree to work intensively with one or more communities.

- Building on activities such as the "Digital Divide Network" -- community leaders use the Internet to share ideas and promising practices.

On Connected Communities Day

Local level

- Announcement of specific commitments by different stakeholders.

- "Ribbon-cutting" for new or expanded activities (e.g. new community technology center, new home access pilot).

- Opportunities for community service (e.g. NetDay, CEOs visiting schools, etc.)

State/national level

- Announcements that have a state or national level impact (e.g. development of content accessible to all).

- Kick-off for PSA/celebrity campaign.

- Event that uses satellites and the Internet to highlight activities going on around the country.

- Volunteer photo-journalists with digital cameras capture interesting stories associated with "Connected Communities" Day.

After Connected Communities Day

- Commitment to do this again on an annual basis for the next 4 years.

- Annual report cards at the national and local level and description of commitments.

Examples of local commitments

Employers

- Provide paid time off for employees to volunteer in schools, community technology centers, home access pilots, tele-mentoring, and other "digital divide" activities.
- Provide access to computers and Internet for all employees.
- Provide technology training for employees.

High-tech companies

- Partner with one or more schools, libraries, community technology centers, and home access" pilot projects to help develop comprehensive solutions that address computers, Internet access, teacher training, mentoring, and educational software.
- Work with school-to-work programs, welfare-to-work initiatives, community colleges, etc. to increase the number of people with marketable IT skills.
- Partner with local schools of education to ensure that all new teachers can use technology effectively.
- Help non-profits that serve low-income communities upgrade their capacity to use technology.

Unions

- Help wire schools, libraries and community technology centers.
- Provide more apprenticeship opportunities in technical fields.
- Make access to technology, technological skills, and distance learning a priority area for labor-management cooperation.

Local school districts, parent-teacher organizations

- Develop and complete school-wide surveys to determine which of the 4 goals (Internet connections, computers, teacher training, educational software and content) are being met.
- Provide teachers with time off to learn how to integrate technology into the curriculum.

Non-profit organizations

- Create a "portal" for local information and services that will help empower low-income families (e.g. child care, transportation, training, job opportunities, local health care, social services, technical assistance for micro-enterprises).
- Work with the private sector, foundations, and government to expand or create new initiatives aimed at bridging the digital divide.
- Conduct outreach to under-served communities to ensure that initiatives respond to real needs -- using both meetings and community networks.
- Expand the capacity of under-served communities to develop their own uses for information technology.

Foundations

- Provide funding for local planning and consensus-building activities.
- Provide funding for follow-on "digital divide" activities that have been identified as priorities.

Celebrities/ sports stars

- Participate in PSAs and local media campaigns on the value of getting connected and mastering the new Information Age tools.

Governors and Mayors

- Provide state-wide or local leadership.
- Make technological literacy a requirement for teacher certification at the state level.
- Identify critical services that can be delivered electronically or enhanced using information technology (example: using geospatial information systems to reduce childhood lead poisoning, use of distance learning for adult basic education, etc.)
- Match the federal government's investment in programs such as the Technology Literacy Challenge Fund.
- Identify sources of funding for "digital opportunity" initiatives (e.g. discretionary money under Workforce Investment Act for IT skills training, state and local budgets).

Libraries and local historical and cultural organizations

- Expand "information literacy" programs. People with information literacy skills are "able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively."

- Develop a "digital library" of information about the community and its history that can be used both locally and nationally.

Universities/Community Colleges

- Ensure that schools of education have an adequate technological infrastructure.

- Encourage multidisciplinary research on digital divide/digital opportunity issues through establishment of research centers.

- Encourage faculty to develop high-quality Internet-based content that can be included in a "Digital Library for Education" through incentives, awards or other forms of recognition.

- Provide objective evaluation of community-based efforts to close the digital divide.

Operators of local Web sites

- Comply with the accessibility standards of the World Wide Web Consortium (Web Accessibility Initiative) to ensure that people with disabilities can access local information and services.

Restaurants and shopping malls

- Establish Internet kiosks in popular commercial establishments.

DRAFT

FROM DIGITAL DIVIDE TO DIGITAL OPPORTUNTY

Access to computers and the Internet and the ability to use this technology effectively are becoming increasingly important for full participation in America's economic, political and social life. While computer and Internet access has exploded during the Clinton-Gore Administration, America faces a "digital divide" -- a gap between those who have access to Information Age tools and the skills to use them and those who don't.

America has an important choice to make. We can allow unequal access to deepen divisions along the lines of race, income, education level, and geography, or we can use technology to help make the American dream a reality for more citizens. The Clinton-Gore Administration is committed to doing its part to ensure that all Americans benefit from opportunities created by information technology. But the government can not and should not do this alone. We need to build partnerships and develop a comprehensive approach to bringing digital opportunity to all Americans.

That is why we are asking you to build on actions you are already taking by agreeing to:

- Support the President's National Challenge to bridge the digital divide by agreeing to devote time and energy toward bringing digital opportunity to more Americans.
- Make new and innovative commitments to schools, families and local communities.
- Participate in the President's New Markets trip during the week of April 9th
- Support legislative initiatives designed to bridge the Digital Divide.

Your willingness to participate in these efforts will go a long way toward meeting two urgent and critical goals: to bring digital opportunity to every child in every school and to under-served families and communities.

GOAL ONE: 21ST CENTURY LEARNING TOOLS FOR EVERY CHILD IN EVERY SCHOOL

For children to succeed, they need to master basic skills at an early age. A critical element of this is the need for information and technological literacy. To help achieve these aims, we must focus on a comprehensive approach to integrating technology into teaching and learning while recognizing that -- as powerful as computers are -- they are no substitute for an inspiring teacher or a loving parent. Together, we must:

1. Connect every classroom and school to the Internet
2. Ensure that students have computer access, ideally at a ratio of 1 computer for every 4-5 students
3. Ensure that teachers are technologically literate and can integrate technology into the curriculum
4. Make available high quality educational software and resources

GOAL TWO: DIGITAL OPPORTUNITY FOR EVERY AMERICAN FAMILY AND COMMUNITY

To ensure that no family or community is left behind, we must:

1. Set the long-term goal of making access to the Internet in the home universal
2. Bring technology to every community -- urban and rural -- through Community Technology Centers and high-speed networks
3. Give adults and young adults the skills they need to use information technology and compete for jobs in the IT sector
4. Motivate and inspire more people to appreciate the value of "getting connected"

ELEMENTS OF A NATIONAL PARTNERSHIP

We can only reach our goals by developing strong partnerships between government, industry, and the rich mosaic of America's civil society -- educators, labor unions, librarians, civil rights leaders, faith-based organizations, foundations, and volunteers, and community-based organizations. We must also recognize that while competition, market forces, technological progress and new business models will help expand access by lowering the price of Internet access, computers, and "information appliances," access to technology is only one piece of the puzzle.

That is why we are urging that we agree to take a comprehensive approach: addressing not only Internet access and hardware, but the creation of quality content and applications, effective training, the development of information literacy, and intensive support and guidance from teachers and mentors. We must also make a special effort to find ways to motivate and inspire those who are not connected to see the value of participating in the Information Revolution.

By pledging to take on specific challenges in the overall effort -- beginning with some of the items outlined below -- you can make a tremendous difference in the lives of millions of American children and families.* We also encourage other ideas and commitments to help bring digital opportunity to all Americans in a sustained and thorough way.

GOAL 1: 21ST CENTURY LEARNING TOOLS FOR EVERY CHILD IN EVERY SCHOOL

Taking Action to Meet All Aspects of the Goal

- Make every school a model school by providing a comprehensive approach to education technology.
  - ✓ Examples of partnerships that have taken this comprehensive approach include PowerUP (with support from AOL, Case Foundation, Gateway, HP, Sun, and Americorps), the Joint Venture Silicon Valley "21st Century Education Initiative," and the "NextDay" project of NetDay.
- Match the Administration's Investment in the Technology Literacy Challenge Fund.
  - ✓ The Administration is proposing an increase from $425 million to $450 million to help states and local communities meet all four components of the goal.
- Work with local parents' groups to develop and complete school-wide surveys to determine which of the goal's four components are being met.
- Offer experts from universities and corporations to work full or part-time in schools – devoting their knowledge and energy to helping schools achieve all four parts of the goal.

Connecting Every Classroom and Library to the Internet

- Continue support for the E-rate
  - ✓ E-Rate has provided $3.65 billion in support Internet connections in schools and libraries over the last two years -- with the deepest discounts to the poorest schools that need it most.

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* : Examples are for illustrative purposes only -- there are many other companies and non-profits that are working to bridge the digital divide.

- Continue volunteer efforts such as NetDay, TechCorps, and the "High Speed Education Connection" of the cable TV industry.

Providing Schools with the Computers they Require

- Donate computers to schools and libraries to bring greater access to technology to children and families

  ✓ The Administration is extending and expanding an enhanced tax deduction to allow companies to deduct more than the cost of their donation.

Training Teachers to Use Technology Effectively in the Classroom

- Develop partnerships to provide technology training to all new and existing teachers.

  ✓ The Administration has set a goal of training all new teachers to use technology, and has proposed $150 million to help meet this goal, which companies can support by partnering with schools of education.

  ✓ The CEO Forum has developed a detailed set of goals for how schools of education and states can work to ensure that all teachers are prepared to teach using technology.

  ✓ Several companies (e.g. Intel, Microsoft, AT&T) are also devoting significant resources to training existing teachers with summer academies, and follow-up support during the course of the school year.

Providing Compelling Content

- Create a Digital Library for Education to help students and teachers find quality content on the Internet.

  ✓ The Administration is proposing $41 million for an initiative to expand access to high-quality Internet-based educational resources, and to make it easier for parents, teachers and students to find compelling content by grade level and subject area.

  ✓ Several companies (e.g. Ameritech, MCI WorldCom) have partnered with government agencies to offer intensive training to teachers so they can develop content, and have provided grants to institutions to digitize special collections (such as the Library of Congress "American Memory" project).

Motivating Young People to Learn and Use Technology to its Fullest Potential.

- Motivate and train youth for careers in information technology

  ✓ Companies such as Cisco, 3Com and Novell have launched programs which help prepare students for high-paying jobs in the IT sector.

- Develop Public Service Announcements with celebrities

  ✓ Sports and entertainment stars can agree to do PSAs showing them using the computers and explaining why they are excited about the Internet, and why mastering these new tools is so important.

  ✓ Develop Public Service Announcements with celebrities to motivate young people and adults to use computers and explore the Internet -- including a "no fear, no shame" campaign for those adults who may be reluctant to admit that they don't know how to use technology.

- ✓ This kind of campaign would also be important for adults -- many of whom might be afraid to admit that they don't know how to use technology.

GOAL 2: DIGITAL OPPORTUNITY FOR EVERY AMERICAN FAMILY AND COMMUNITY

Expanding Home Access

- Provide computers and Internet services to your employees and their families.

  - ✓ Leading U.S. companies such as Ford and Delta have determined that providing their employees with computers and Internet access at reduced rates is critical to upgrading the skills of their employees.

  - ✓ The Administration has proposed $50 million for a pilot project to expand home access for low-income families. Companies can support local projects through free or discounted hardware, software, Internet access and training. Pilots are being supported by Computers For Youth, Microsoft, Bell Atlantic, IBM, and "Clickstart."

Creating more Community Technology Centers

- Donate all aspects of technology to help provide national coverage through Community Technology Centers (CTCs). CTCs provide children and adults a place to go where technology and assistance is available to them—including everything from conducting job searches to finding child care to providing children with structured after-school programs.

  - ✓ The Administration is proposing to expand its investment in CTCs from $32.5 million to $100 million- to create up to 1,000 new centers.

  - ✓ By extending and expanding an enhanced tax deduction, the Administration encourages companies to donate equipment, software, Internet access, support and instructors to expand the number of CTCs.

Providing Greater Training to Allow all Individuals to Fully Participate in the Digital Economy

- Offer training and internships to prepare more minorities and low-income workers for IT sector jobs

  - ✓ Information Technology Association of America is leading efforts to expand the number of minority internships in IT companies. Other companies and non-profits are getting positive results by providing IT training to people who are unemployed, on welfare, or holding minimum-wage jobs.

  - ✓ One California-based non-profit (OpNet) has been able to help people who were unemployed or making an average of $6 per hour compete successfully for jobs paying up to $45,000 year. Another consortium of Northern California companies has launched a project called "Welfare-to-Web" to provide the training people need to make the transition from welfare to high-tech jobs.

- Provide Basic Technology Training to Workers

  - ✓ Companies can take advantage of the President's tax credit and provide their employees with basic

computer training, workplace literacy or other basic education.

- Increase access to "information literacy" skills

  ✓ 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." Companies can donate the computers and Internet access that librarians need to provide people with these skills.

Providing Content and Applications that will Help Empower Low-Income Communities

- Develop content to help families access quality information and resources to meet their everyday needs

  ✓ Examples might include compelling courseware for adult literacy, adult basic education, English as a Second Language, or the skills needed to start a "micro-enterprise."

  ✓ Companies, state and local government agencies and non-profits can also collaborate to develop "portals" that would provide one-stop access to content particularly relevant to the needs of low-income families — such as child care, transportation, employment opportunities, and social services.

  ✓ The Administration is proposing to triple its investment in the Technology Opportunities Program (to $45 million), which has supported many innovative applications of information technology.

Bringing Advanced Technology to Isolated Rural Communities and to Indian Country

- Ensure that Native Americans participate in the New Economy. The Native American community can benefit from training for IT jobs, access to broadband networks that can help bring technology-related employment, e-commerce solutions for Native American small businesses, and the use of technology to preserve and share Native American culture.

  ✓ The Administration proposes $10 million for grants to tribal colleges for networking and access; course development; student assistance; and capacity building.

- Develop innovative business models and new technologies to deploy advanced services to rural America.

  ✓ The Administration has proposed several hundred million in loan guarantees to accelerate the deployment of broadband wireline and wireless networks to rural America.

  ✓ Companies are developing broadband technologies that can be cost-effectively deployed.

  ✓ Companies are exploring ways to bring fiber optic networks to rural states if users can pool their purchasing power.

Ensuring that Information Technologies and the Internet are Accessible to People with Disabilities

- Make the Web and information technology accessible for people with disabilities.

  ✓ The Administration and Internet companies are co-funding the "Web Accessibility Initiative" through the World Wide Web Consortium (W3C). Internet and e-commerce companies can move to adopt Web accessibility standards being developed by the W3C for Web content, browsers and authoring tools.

  ✓ Many telecommunications companies are working to enhance the accessibility of their products to meet the requirements of Section 255 of the Telecommunications Act of 1996.

- ✓ The Administration is proposing increased funding to improve the state-of-the-art of assistive technology, and to make it more affordable for people with disabilities.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachael F. Goldfarb (CN=Rachael F. Goldfarb/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:10-MAR-2000 09:58:59.00

SUBJECT: Digital Divide Meetings

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
FYI. I edited the list accordingly.
---------- Forwarded by Rachael F. Goldfarb/OPD/EOP on 03/10/2000 09:58 AM ----------

Zina C. Pierre
03/09/2000 04:10:54 PM
Record Type: Record

To: Rachael F. Goldfarb/OPD/EOP@EOP
cc:
Subject: Digital Divide Meetings

Hi Rachel --

Allow me to introduce myself, my name is Zina Pierre and I am the new Special Assistant to the President for Intergovernmental Affairs replacing Barbara Bostick-Hunt. I oversee mayors and county officials and my issue areas include: New Markets, Digital Divide, Census 2000, Transportation, Community Empowerment and Delta 2000. Please include me on your distrubution list for any future meetings or emails pertaining to digital divide or any of the other areas listed if they pertain to you.

Thanks!

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Brian Komar <komar@civilrights.org> (Brian Komar <komar@civilrights.org> [UNKNOWN])

CREATION DATE/TIME:10-MAR-2000 16:56:39.00

SUBJECT: [Fwd: Digital Divide = Digital Opportunity]

TO: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])
READ:UNKNOWN

TEXT:
This was sent out to the entire LCCR coalition et al.
earlier today. Keep your fingers crossed.

Best,
Brian

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Divide, specifically how to turn the Digital Divide into Digital Opportunity.

As part of this effort, the White House is asking individuals and organizations to support two goals: (1) Ensuring Access To 21st Century Learning Tools For Every Child In Every School; and (2) Expanding Digital Opportunity For Every American Family And Community.

Please join the Leadership Conference on Civil Rights in supporting these two important goals by filling out the attached form and sending it back to the White House.

Also, please forward this message to other interested individuals and organizations.

Thanks.

--

Brian Komar
Director, Communications and Technology Policy
Leadership Conference on Civil Rights
Leadership Conference Education Fund
1629 K Street, NW, #1010
Washington, DC 20006
(202) 466-3311 phone
(202) 466-3435 fax
komar@civilrights.org http://www.civilrights.org

- FINALcalltoaction.DOC========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D59]ARMS29439667Q.046 to ASCII.
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

A NATIONAL CALL TO ACTION FOR DIGITAL OPPORTUNITY

YES, WE SUPPORT THE CALL TO ACTION AND ARE COMMITTED TO TAKING CONCRETE STEPS TOWARD MEETING THE TWO NATIONAL GOALS FOR DIGITAL OPPORUTNITY.

COMPANY/ORGANIZATION NAME:

_____

PRESIDENT/CEO: _____

ADDRESS: _____

_____

_____

PHONE: _____ **FAX:** _____

E-MAIL: _____

PLEASE RETURN THIS FORM BY MARCH 24th TO:

Jackson Dunn, Office of Public Liaison
E-mail: jackson_dunn @who.eop.gov
Phone: 202-456-2930
Fax: 202-456-6218

FROM DIGITAL DIVIDE TO DIGITAL OPPORTUNITY
A NATIONAL CALL TO ACTION

Access to information technology and the Internet and the ability to use this technology effectively are becoming increasingly important to full participation in America's economic, political and social life. While computer and Internet access has exploded in recent years, America faces a "digital divide"— a gap between those who have access to Information Age tools and the skills to use them and those who don't.

America has an important choice to make: we can allow unequal access to deepen existing divisions along the lines of race, income, education level, geography, and disability -- or we can use technology as a powerful tool to help make the American dream a reality for more people. To help create digital opportunity for more Americans, we must create strong partnerships between government, industry, and the rich mosaic of America's civil society -- including educators, labor unions, librarians, civil rights leaders, faith-based organizations, foundations, volunteers, and community-based organizations.

As companies, non-profit organizations and individuals, we are committed to taking concrete steps to meet two critical national goals: (1) Ensuring Access To 21st Century Learning Tools For Every Child In Every School; and (2) Expanding Digital Opportunity For Every American Family And Community. We pledge to support these two goals.

GOAL ONE: 21ST CENTURY LEARNING TOOLS FOR EVERY CHILD IN EVERY SCHOOL
For children to succeed, they need to master basic skills at an early age. A critical element of this is the need for information and technological literacy. To help achieve these aims, we must focus on a comprehensive approach to integrating technology into teaching and learning while recognizing that -- as powerful as technology is -- it is no substitute for an inspiring teacher or a loving parent. Together, we must:

1. Connect every classroom to the Internet
2. Ensure that all students have modern multi-media computer access, ideally at a ratio of 1 computer for every 4-5 students
3. Ensure that teachers are technologically literate and can integrate technology into the curriculum
4. Make available high quality educational software and online learning resources

GOAL TWO: DIGITAL OPPORTUNITY FOR EVERY AMERICAN FAMILY AND COMMUNITY To ensure that no family or community is left behind, we must:

1. Set the long-term goal of making home access to the Internet universal
2. Bring technology to every community -- urban, rural, and Native American -- through Community Technology Centers and high-speed networks
3. Give adults the skills they need to use information technology and compete for jobs in the IT sector
4. Motivate and inspire more people to appreciate the value of "getting connected"

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachael F. Goldfarb (CN=Rachael F. Goldfarb/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:10-MAR-2000 10:50:35.00

SUBJECT: RE: THIS IS A TIME CHANGE: Digital Divide interagency meeting - F riday 12 pm

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
Done.

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Martha A. Livingston (CN=Martha A. Livingston/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:10-MAR-2000 14:50:39.00

SUBJECT: Digital Divide background

TO: Natasha F. Bilimoria (CN=Natasha F. Bilimoria/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
Natasha--

It was nice to meet you today--I know the face from the halls! Could you please send me the Digital Divide Tour background material you mentioned at the meeting? I will be sending the event info I promised later today.

Thanks, Martha

ARMS Email System
RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Thomas A. Kalil (CN=Thomas A. Kalil/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:10-MAR-2000 10:49:25.00

SUBJECT: Digital Divide to Digital Opportunity

TO: mmccain@astd.org@inet (mmccain@astd.org@inet [UNKNOWN])
READ:UNKNOWN

TEXT:
Mary:

I work with Gene on the digital divide issue - I'd be
interested in your reaction to the attached.
========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D26]ARMS24955167G.046 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 1 ==========

Draft February 19, 2000
Thomas A. Kalil

The Case for "Social Software."

What is "social software?"

I think that it is highly likely that there is a category of software that is under-produced by the marketplace relative to its potential social rate of return. Furthermore, it's possible that some social services for low-income families and communities could be delivered more efficiently and effectively using technology.

For example, I believe that there would be significant social benefits if any adult with a low level of literacy could access software with the following characteristics:

- Affordable even for low-income families
- As effective (or almost as effective) as a one-on-one tutor
- Highly engaging and easy to use
- Available on multiple platforms (e.g. computers, set-top boxes, video-games)
- Widely and effectively marketed and distributed through a variety of channels (employers, video-rental stores, state employment agencies, adult literacy programs, Internet, community technology centers, etc.)
- Able to communicate with users in multiple languages using speech technology
- Able to support different learning styles of adult learners
- Able to support "communities of learners" by allowing Internet-based interaction between instructors, mentors, and other adult learners -- to harness the social dimension of learning
- Built-in assessment
- Easy to update, customize and enhance (e.g. developed in a "modular" way so that it is possible to add new languages that the software can understand)

Although film studios are willing to invest $100 million for a Hollywood blockbuster, and game developers routinely spend $30 million on a Nintendo or Sega game, software publishers are only able to invest a small fraction of this to develop products such as courseware for adult literacy. It's difficult to imagine the current market for adult literacy courseware supporting the kind of investment needed to develop the kind of product described above.

If such a product were developed and widely used, the social returns could be significant. Many

Americans lack the basic literacy skills needed to be successful citizens and workers in the "new economy." The 1994 National Adult Literacy Survey found that 23-27 million adults performed at or below the fifth-grade level in reading and math. Adults who function at the lowest levels of literacy tend to live in poverty, drop out of school, and, if employed, have low-paying jobs. Poor literacy skills affect not only these adults, but their children as well; numerous studies have shown that the educational level of the parent, is one of the most influential factor in children's success in school. Adults that are struggling to balance the competing demands of work and family often find it difficult to complete classroom-based adult literacy programs

Moreover, software and digital content has marginal costs that are essentially zero. This is a very different cost structure from the way in which social services (such as classroom-based adult literacy) are currently delivered. Costs rise in direct proportion to the number of people being served.

I obviously don't mean to limit the definition of "social software" to traditional shrink-wrapped software or multimedia CD-ROMs. It could also be Web-based content and applications, databases, or networked information systems. Social software may also be designed not just to deliver information, but to foster human interaction. Social software will also not eliminate the need for face-to-face interaction. The experience of the Department of Labor is that their Web-based services (America's Job Bank, etc.) allow many people who are looking for work to engage in "self-service." Others still need or want to talk to a human being for some or all of the job search and job counseling services that are provided. However, their Web-based services allow them to serve many more people that they could reach through face-to-face interaction.

Issues for further exploration

I think that the concept of "social software" raises a number of important questions that need to be explored — not only through public debate and discussion, but also through pilot projects and other forms of experimentation. Below are a few:

1. *What are some other plausible examples of social software?*

In the context of President Clinton's digital divide initiative, the Administration is interested in applications that could help empower low-income families and communities, and enable them to improve their quality of life. Possible examples include:

Entrepreneurial training: Courseware that would help at-risk youth or low-income adults gain the necessary business and entrepreneurial skills needed to become self-employed or start micro-enterprises. Youth entrepreneur programs have motivated many students to learn math and other academic subjects because they immediately see their real-world relevance.

Industry-specific skills training: Courseware that would help low-income workers acquire the skills needed for jobs in specific industries, and make the transition from welfare-to-work.

Public health information systems: Information systems that help address the health challenges faced by low-income communities. For example, public health information systems can help

increase the rates of childhood immunization rates in inner cities by generating automatic reminder notices to parents and doctors, and allowing principals to manage school-based immunization programs.

2. *What kind of public-private partnerships would lead to the increased creation, marketing and use of social software?*

Obviously, it should not be assumed that government intervention in the marketplace is needed to stimulate the development of "social software." In many instances, existing commercial software can be used as is or customized to meet the needs of schools, non-profits, government agencies, low-income communities. For example, many volunteer organizations are now running K-12 digital reference services that match students and teachers with questions with experts that can provide answers (e.g. Ask A Scientist, Ask Dr. Math). A company that makes "customer relationship management" software used by Fortune 500 companies is working with many of these "Ask A" services to help them handle the flood of e-mails that they are receiving.

But if it is clear that current marketplace arrangements are not producing high-quality software and content that could address the needs of low-income families -- government, industry, and non-profits should explore a number of different approaches to stimulating its development and use.

To stimulate discussion, let me describe one possible scenario building on the adult literacy example:

- Experts in adult literacy (academic researchers, practitioners) and software developers meet to define the desirable characteristics of high-quality adult literacy software

- Various parties with an interest in the development of adult literacy courseware (federal and state government agencies, employers, foundations, etc.) pool their purchasing power and issue a joint "request for proposal."

- One or more companies (or alliances between companies, universities, and non-profits) are chosen (via a competitive, merit-based process) to develop the courseware.

- As a condition of the contract - the software and content are developed under an "open source" license. This allows many companies to distribute and market the product at a low price — since the basic development costs have already been paid for. "Open source" software is software that can be freely redistributed and modified. Leading information technology companies such as Hewlett Packard and Novell are already issuing "requests for proposal" to the open source development community.

- A community of open source developers may form around the courseware, continuing to enhance and improve it.