FOIA Number: 2006-0467-F

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Commencement 6/5/98 - Memo Drafts

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Withdrawal/Redaction Sheet
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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	Michael Waldman to Jeff Shesol at 10:33am. Subject: MIT. (4 pages)	05/19/1998	P5
002. memo	For Michael Waldman from Jeff Shesol and Lowell Weiss. Subject: MIT Speech. (3 pages)	05/18/1998	P5
003. email	Jeff Shesol to Lowell Weiss at 5:33pm. Subject: Done! (6 pages)	05/15/1998	P5
004. paper	MIT Memo Outline: The Digital Divide. (2 pages)	05/1998	P5
005. paper	MIT Memo Outline: The Digital Divide. (1 page)	05/1998	P5
006. memo	For Michael Waldman from Jeff Shesol and Lowell Weiss. Subject: Policy Ideas for MIT Speech. (3 pages)	05/13/1998	P5

COLLECTION:
Clinton Presidential Records
Speechwriting
Jeff Shesol
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FOLDER TITLE:
Commencement 6/5/98 - Memo Drafts

2006-0467-F
vz1275

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]
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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)]

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May 15, 1998

MEMORANDUM FOR MICHAEL WALDMAN

FROM: JEFF SHESOL AND LOWELL WEISS

RE: MIT SPEECH

Summary: This memorandum establishes a basic framework for the MIT commencement address. As conceived, the central theme of the speech is **The Digital Dividend: Equal Opportunity in the Information Age**.

Some propose that the President cover a range of themes related to the Information Age, from privacy and encryption to productivity growth, anti-trust enforcement, and Internet commerce. Though such an approach could stitch together a variety of loosely related policies, it would be similar to the speech the President might give at a typical technology conference. We advocate a narrower focus. We believe a successful commencement address eschews laundry lists. That is what made Princeton and Morgan State and Rice so memorable.

Substance: As the President has often noted, the explosive growth of information technology (IT) is a sign, and an engine, of an American economy in transition. IT industries have grown at more than twice the rate of the overall economy, and have nearly doubled as a share of GDP since 1985. In 1996, the IT sector employed 7.4 million workers in high-skilled, high-wage jobs: these workers earned just under $46,000 per year, compared to an average of $28,000 for the private sector as a whole. The impact on the national economy has been profound. IT, by some estimates, has shaved more than a point off the overall inflation rate. In the past 3 years, IT has been responsible for nearly 35 percent of total annual real GDP growth. And by 2002, Internet commerce between businesses will likely exceed $300 billion.

This is the *digital dividend*, and it has barely begun. In this speech, the President could explain what America must do to continue what his economic strategy has engendered. He could insist that it is not enough to say, complacently, "let us continue." After all, this is more than a time of innovation; it is a time of fundamental transformation. Computers are different in kind than "revolutionary" innovations like the car, telephone, or television. Instead, IT portends a sea change that happens, at most, once every hundred years. History is instructive. At the onset of the Industrial Revolution, Lincoln embraced its promise and responded to its imperatives by signing the Land Grant College Act. (MIT is a land grant college). Only education could widen the circle of opportunity, and embodied "the principle

that clears the path for all--gives hope to all--and, by consequence, enterprise and industry to all." But Lincoln's successors did not answer his call, six decades passed before we corrected the abuses and tamed the savage inequities of a new economy.

The President, like Lincoln before him, stands at a pivotal moment. It is ripe with possibility: as some economists argue, moments of fundamental "disruption" offer the best opportunity to narrow disparities. But in order to continue our great gains into the 21st century, America must face the challenge of its growing digital divide.

It is a challenge the market alone cannot meet. The IT sector is projected to spawn 100,000 new jobs each year--high-skilled, high-wage jobs--and will have difficulty filling them all. Elites, like the students, graduates, and faculty of MIT, have been and will continue to be at the forefront of this revolution. But they cannot sustain it, and America cannot ensure the health of its economy, without computer-literate workers. High school dropouts can no longer walk onto an auto assembly line or into a neighborhood Kinko's and expect to find employment; increasingly, even jobs in the service sector require basic computer skills.

In an important sense, then, this becomes a *values* speech: *equality of opportunity* is the most deeply held national ideal at stake in the Information Age. For inequities will not, as a growing body of IT utopians has it, disappear as a matter of course. Trickle-down economics didn't work; trickle-down technology won't, either. If we stand passively in the face of great change, we risk creation of two Americas: one wired, the other not, an America divided between haves and have-nots, knowers and know-nots. MIT affords the President a chance to highlight these challenges and our great--if fleeting--opportunity to overcome them. Here his leadership is indispensable, his credibility unquestioned, and his opportunity for long-term impact most profound.

Such a speech would articulate one basic principle: **information technology must serve to narrow, not widen, disparities**. And any solution requires three key elements:

1) Universal access to information technology.
2) Universal access to computer training and education.
3) A new compact of responsibility among citizens, governments, and businesses.

This Administration has made great strides toward universal access. Now, the public and private sectors must make a commensurate investment in the skills of our citizens. We believe the President can make the greatest impact with two complementary initiatives: ensuring universal computer literacy and providing universal teacher training in IT so every child in America has the skills to succeed in the Information Age.

UNIVERSAL TECHNOLOGY LITERACY: More and more students are becoming computer literate in elementary school. But for those who aren't, high school represents the last safety net before they fall unprepared into the workplace. Therefore, the President could encourage states and school districts to require, as a condition of graduation, competency in the

"New Basics" --skilled use of computers as a tool for research and learning.

You have asked us to determine whether it would be desirable for all high school students to pass a computer literacy requirement. The answer is Yes. The National Academy of Science has already been tasked with the project of defining exactly what information technology "literacy" should encompass. The NAS is close to completing its report. Perhaps the President could use its findings as the basis for a graduation requirement. It probably makes sense for us to stay away from requiring students to take a distinct computer class. Experts believe that this approach doesn't help students learn to apply computer skills in meaningful ways.

UNIVERSAL TEACHER TRAINING: There has been a major education technology investment in hardware, infrastructure, and modernization at the federal, state, and local levels. It is now time to invest in our teachers. As the President himself noted, "I met with a group of young people yesterday in their 20s who said, 'What difference will it make if you connect every classroom in the country to the Information Superhighway if the teachers aren't trained to use the technology.'" PCAST concluded in 1997 that "the substantial investment in hardware, infrastructure, software, and content ... will be largely wasted if K-12 teachers are not provided with the preparation and support they need to effectively integrate information technology into their teaching."

Our current efforts are small-scale, and they are just getting off the ground. Congress has already funded several Administration initiatives that help states to train current and new teachers. We have asked for increases in FY '99 that would allow states to train all *new* teachers, and to train at least one technology expert per school.

If the President were call for *universal* teacher training it could mean several things: providing training for *all public school* teachers, providing training for *all public high school* teachers, or helping to fund *one IT expert per school* (who would hold training sessions for all teachers and serve as an on-call troubleshooter). We think the third option is the most promising. If we were to opt for out-of-house teacher training (a week or two at a private training facility), it is likely that teachers would still need a lot of hands-on follow-up and troubleshooting. If an in-house IT expert were to do the training, seamless follow-up would be ensured.

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May 19, 1998

MEMORANDUM FOR MICHAEL WALDMAN

FROM: JEFF SHESOL AND LOWELL WEISS

RE: MIT SPEECH

Summary: This memorandum establishes a basic framework for the MIT commencement address. As conceived, the central theme of the speech is **equal opportunity in the Information Age**.

The move from the industrial age to the information age will dramatically ~~impact~~ affect the most central of American values: equal opportunity for all. Information technology could be one of the greatest democratizing forces in our history. Yet, as with the Industrial Revolution a century ago, the shift to new technologies upends old arrangements, demands new skills, and threatens to widen the inequalities in our society. It is precisely these moments of "disruption" that offer the best chance to narrow disparities. ~~Yet this moment also threatens to widen a digital divide that worsens the inequality trends of the past quarter century.~~

awk

America can and must choose to harness the new technology in service of our enduring values. First, we must advance opportunity by ensuring that the new technologies spread throughout our economy and spur productivity. Second, we must seek universal access to information technology -- and, in fact, spurred by government and the market, that is happening. But that is not enough. Our new national mission must be to ensure universal computer literacy--because access to technology only matters when Americans have the skills to use it.

OUTLINE

Enudring values, new challenges. I come to MIT not to speak about new technology, but about enduring values. America was founded on a revolutionary principle, enshrined in our founding documents: equal opportunity for all. Our history can be understood as a struggle to widen that circle of opportunity, to make real the promise of America in new and changing times. A century ago, the move from farm to factory challenged America's traditional notions of equality and opportunity. Over decades, our nation learned how to act to harness the benefits of the industrial age, while giving working people security and protection from the brute force of economic change.

The Information Age. Now, as is so obvious to all of us, we are once again moving

into a new era. A century ago, half of all Americans lived on farms. A half century ago, four out of ten Americans worked in factories. Today, half of all Americans are knowledge workers. By some estimates, information technologies have shaved more than a point off the overall inflation rate and may be driving gains in overall productivity. And the information revolution has only just begun. Once, the wealth of our people came mainly from the gold in the ground or the abundance of our farmland or the power of our factories. Now it comes from the power of ideas.

The choice. This move into a new economy and a new epoch can be an explosive, democratizing force, spurring creativity, spreading access to knowledge, helping individuals with drive and imagination to launch new businesses and even new industries. Yet the new technologies that have been an engine for growth have also been an engine for inequality. America has not yet found the way to tap the best possibilities of the information age while minimizing its risks of inequality and social division. How we do so will be one of the great questions for the new century.

First, we must advance opportunity by spurring the spread of the new technology. There is increasing evidence that the strong economic growth the country now enjoys, in part, is due to the long-delayed productivity enhancements of information technology. We must

Second, we must seek universal access to the new technology. In fact, such universal access is closer than we think. Computers will soon be so cheap (e.g., network computers) that a home without a computer will be as rare as a home without a TV or phone. And in the short-term, our national effort to connect every classroom and library to the Internet by the Year 2000 will soon have succeeded.

But this is not enough. We must give all our people the skills and the xx to make use of this universal access. Techno-utopians are wrong: opportunity will not widen as a matter of course. If we stand passively in the face of great change, we risk creation of two Americas: one wired, the other not, an America divided between haves and have-nots, knowers and know-nots. The information sector is projected to spawn 100,000 new jobs each year--high-skilled, high-wage jobs--and will have difficulty filling them all. Elites, like the students, graduates, and faculty of MIT, have been and will continue to be at the forefront of this revolution. But they cannot sustain it, and America cannot ensure the health of its economy, without computer-literate workers. High school dropouts can no longer walk onto an auto assembly line or into a neighborhood Kinko's and expect to find employment; increasingly, jobs in the manufacturing and service sectors require basic computer skills.

The most fundamental step must be academic standards in the basics:
We believe the President can make the greatest impact with two complementary initiatives: ensuring *universal computer literacy* and providing *universal teacher training in technology* so every child in America has both the tools and the skills to succeed in the Information Age.

UNIVERSAL TECHNOLOGY LITERACY: More and more students are becoming computer literate in elementary school. But for those who aren't, high school represents the

last safety net before they fall unprepared into the workplace. Therefore, the President could encourage states and school districts to require, as a condition of graduation, competency in the "New Basics" -- skilled use of computers as a tool for research and learning.

You have asked us to determine whether it would be desirable for all high school students to pass a computer-literacy requirement. The answer is Yes. At least 10 states already have some form of this requirement, and the trend seems to be gaining momentum. If it's appropriate to highlight a state success story, Kentucky is a good candidate. First, the state has won important honors for its new forward-looking curriculum. Second, its computer-literacy requirement stresses the right thing: helping students apply computer skills in real-life situations, not offering stand-alone "computer classes."

UNIVERSAL TEACHER TRAINING: There has been a major education technology investment in hardware, infrastructure, and modernization at the federal, state, and local levels. It is now time to invest in our teachers. ~~As the President himself noted,~~ "I met with a group of young people yesterday in their 20s who said, 'What difference will it make if you connect every classroom in the country to the Information Superhighway if the teachers aren't trained to use the technology.'" PCAST concluded in 1997 that "the substantial investment in hardware, infrastructure, software, and content ... will be largely wasted if K-12 teachers are not provided with the preparation and support they need to effectively integrate information technology into their teaching."

Our current efforts are small-scale, and they are just getting off the ground. Congress has already funded several Administration initiatives that help states to train current and new teachers. We have asked for increases in FY '99 that would allow states to train all *new* teachers, and to train at least one technology expert per school.

If the President were call for *universal* teacher training it could mean several things: providing training for *all public school* teachers, providing training for *all public high school* teachers, or helping to fund *one technology expert per school* (who would hold training sessions for all teachers and serve as an on-call troubleshooter). We think the third option is the most promising. If we were to opt for out-of-house teacher training (a week or two at a private training facility), it is likely that teachers would still need a lot of hands-on follow-up and troubleshooting. If an in-house technology expert were to do the training, seamless follow-up would be ensured.

- Establish Universal Digital Library

- Set aside portion of wireless spectrum to speed networking within and among schools, libraries, etc.

- Create incentives for businesses to adopt schools

- Establish service initiative so college students can serve as technology instructors for public-school teachers

- Expand use of public schools as after-school technology centers for citizens of all ages

- Create "Baldrige Awards"-like program for educational software development

- Expand Tech Corps

May 19, 1998

MEMORANDUM FOR CIRCULATION

THROUGH: MICHAEL WALDMAN

FROM: JEFF SHESOL AND LOWELL WEISS

RE: MIT SPEECH

I. SUMMARY

This memorandum proposes a basic framework for the MIT commencement address. As conceived, the central theme of the speech is **equal opportunity in the Information Age**.

The move from the Industrial Age to the Information Age will dramatically affect the most central of American values: equal opportunity for all. Information technology could be one of the greatest democratizing forces in our history. Yet, as with the Industrial Revolution a century ago, the shift to new technologies upends old arrangements, demands new skills, and threatens to widen the inequalities in our society. ~~It is precisely these moments of "disruption" that offer the best chance to narrow disparities.~~

America can and must choose to harness the new technology in service of our enduring values. First, we must advance opportunity by ensuring that the new technologies continue to spread throughout our economy and spur productivity. Second, we must seek universal access to information technology -- and, in fact, spurred by government and the market, that is happening. But that is not enough. Our new national mission must be to ensure universal *computer literacy* -- because access to technology only matters when Americans have the skills to use it.

II. OUTLINE

Enduring values, new challenges. I come to MIT not to speak about new technology, but about enduring values. America was founded on a revolutionary principle, enshrined in our founding documents: equal opportunity for all. Our history can be understood as a struggle to widen that circle of opportunity, to make real the promise of America in new and changing times. A century ago, the move from farm to factory challenged America's traditional notions of equality and opportunity. Over decades, our nation learned how to act to harness the benefits of the industrial age, while giving working people security and protection from the brute force of economic change.

The Information Age. Now, as is so obvious to all of us, we are once again moving into a new era. A century ago, half of all Americans lived on farms. A half century ago, four out of ten Americans worked in factories. Today, half of all Americans are knowledge workers. By some estimates, information technologies have shaved more than a point off the overall inflation rate and may be driving gains in overall productivity. And the information revolution has only just begun. Once, the wealth of our people came mainly from the gold in the ground or the abundance of our farmland or the power of our factories. Now it comes from the power of ideas. [*full discussion of impact of information technology on expanding opportunity, e.g., MIT's new center to use technology to benefit children*]

The choice. This move into a new economy and a new epoch can be ~~an explosive,~~ a democratizing force, spurring creativity, spreading access to knowledge, helping individuals with drive and imagination to launch new businesses and even new industries. Yet the new technologies that have been an engine for growth have also been an engine for inequality. America must instead find the way to tap the best possibilities of the information age while minimizing its risks of inequality. How we do so will be one of the great questions for the new century.

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First, we must advance opportunity by spurring the spread of the new technology. There is increasing evidence that the strong economic growth the country now enjoys, in part, is due to the long-delayed productivity enhancements of information technology. So we must take further steps to encourage research and further diffusion of computer technology.

Second, we must seek universal access to the new technology. In fact, such universal access is closer than we think. ~~Computers will soon be so cheap (e.g., network computers) that a home without a computer will be as rare as a home without a TV or phone. And in the short-term,~~ our national effort to connect every classroom and library to the Internet by the Year 2000 will soon have succeeded. [*support for E-rate*]

But this is not enough. The third thing we must do is this: We must give all our people the skills and the motivation to make use of this universal access. Techno-utopians are wrong: opportunity will not widen as a matter of course. If we stand passively in the face of great change, we risk creation of two Americas: one wired, the other not, an America divided between haves and have-nots, knowers and know-nots. The information sector is projected to spawn 100,000 new jobs each year -- high-skilled, high-wage jobs -- and will have difficulty filling them all. Elites, like the students, graduates, and faculty of MIT, have been and will continue to be at the forefront of this revolution. But they cannot sustain it, and America cannot ensure the health of its economy, without computer-literate workers. High school dropouts can no longer walk onto an auto assembly line or into a neighborhood Kinko's and expect to find employment; increasingly, jobs in the manufacturing and service sectors require basic computer skills.

The most fundamental step must be academic standards in the basics: reading, math, science, etc.

But if opportunity is to remain real in the 21st Century, then every American must also be computer literate -- and that means every child must be taught those skills when it counts.

III. POLICY INITIATIVES

A. Universal Technology Literacy

More and more students are becoming computer literate in elementary school. But for those who aren't, high school represents the last safety net before they fall unprepared into the workplace. Therefore, the President could encourage states and school districts to require, as a condition of graduation, competency in the "New Basics" -- skilled use of computers as a tool for research and learning.

At least 10 states already have some form of this requirement, and the trend is gaining momentum. If it's appropriate to highlight a state success story, Kentucky is a good candidate. First, the state has won important honors for its new forward-looking curriculum. Second, its computer-literacy requirement stresses the right thing: helping students apply computer skills in real-life situations, not offering stand-alone "computer classes."

Issues to be further explored include:

- what form would the challenge take? Would we include budget incentives ... a national challenge (as with our current standards) ... or an exhortatory goal?
- what grade level is the right one for such training?
- what does it mean to be 'computer literate' when computers will increasingly be able to take dictation?

B. Universal Teacher Training

There has been a major education technology investment in hardware, infrastructure, and modernization at the federal, state, and local levels. It is now time to invest in our teachers. PCAST concluded in 1997 that "the substantial investment in hardware, infrastructure, software, and content ... will be largely wasted if K-12 teachers are not provided with the preparation and support they need to effectively integrate information technology into their teaching."

Our current efforts are small-scale, and they are just getting off the ground. Congress has already funded several Administration initiatives that help states to train current and new teachers. We have asked for increases in FY '99 that would allow states to train all *new* teachers, and to train at least one technology expert per school.

Universal teacher training could be accomplished in a way that spends the same amount of money that we have already proposed, or could involve greater sums. Options include: providing training for *all public school* teachers; providing training for *all public high school* teachers, or *all fifth grade or sixth grade (or whatever is the appropriate grade) teachers*; or helping fund *one technology expert per school* (who would hold training sessions for all

teachers and serve as an on-call troubleshooter).

If we were to opt for out-of-house teacher training (a week or two at a private training facility), it is likely that teachers would still need a lot of hands-on follow-up and troubleshooting. If an in-house technology expert were to do the training, seamless follow-up would be ensured.

IV. OTHER POLICY IDEAS

- Support the Next Generation Internet for an additional two years (NEC)

- Creating a body of experts to study the ethical, legal and social implications of information technology (comparable to the committee that examines these issues re: the Human Genome Project).

- Announce a contest to encourage students to develop NGI applications (NEC)

- Double investment in computing and communications research over 5-10 years (NEC)

- Accelerate private-sector investment in high-speed networks to homes and schools (NEC)

- Announce a date certain for requiring all new federal info be posted online (NEC)

- Develop "digital laboratories of democracy" for sharing best ideas on policies such as community policing, welfare-to-work, quality child care (NEC)

- Fund "smart community" pilots to enable better decision-making at the local level (NEC)

- Challenge a team of the best software companies, creative talent, and educators to develop high-quality software that will help lift Americans from low-wage jobs (NEC)

- Direct HHS to expand reimbursement for telemedicine through HCFA (NEC)

- Expand efforts to make quality info on health plans available on the Internet (NEC)

- Increase R & D to make computers more accessible for people with disabilities (NEC)

- Direct federal agencies to make the government's Web sites accessible for people with disabilities (NEC)

- Provide seed money to create community technology centers ("Plugged In" model) in every poor community

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THE WHITE HOUSE

WASHINGTON

May 13, 1998

MEMORANDUM FOR MICHAEL WALDMAN

FROM: JEFF SHESOL AND LOWELL WEISS

RE: MIT SPEECH

Summary: This memorandum establishes a basic framework for the MIT commencement address. As conceived, the central theme of the speech is **Equal Opportunity in the Information Age: Narrowing the Digital Divide**.

Some have proposed that the President cover a wide range of themes related to the challenges and opportunities of the Information Age, including privacy, productivity growth, anti-trust enforcement, commercial development, and encryption. Although such a cross-cutting approach would offer the opportunity to sew together a variety of technology-related policy initiatives, it would be quite similar to the kind of speech the President would give to a typical technology conference. We advocate a narrower focus. We believe a successful commencement address must eschew laundry lists. That is what made Princeton and Morgan State and Rice so memorable.

No Information Age challenge demands Presidential attention more than the growing digital divide. Both the President and Vice President have given ample attention to the information economy and technology per se. Far more befitting a Presidential commencement address is a speech about values --and the most deeply held value at risk in the Information Age is the value of equal opportunity. This is a value that the market cannot meet. Here is where the President's leadership is indispensible, his credibility unquestioned, and his opportunity for long-term impact most profound.

The speech is an opportunity for the President to articulate four basic principles:
*Information technology must serve to narrow, not widen, disparities.
*Opportunity in the Information Age requires universal access to information technology.
*Opportunity in the Information Age requires universal access to computer training and education.
*Opportunity in the Information Age requires a new compact of responsibility among citizens, governments, and the private sector.

As the President has often noted, the explosive growth of information technology (IT) is a sign, and an engine, of an American economy in transition. This is different in kind than the introduction of the car, telephone, or television. Like the industrial revolutions of the 18th and

19th centuries, it is a sea change that happens, at most, once every hundred years. Peter Drucker has argued that moments of fundamental economic "disruption" offer the best opportunity to narrow disparities. We stand at such a pivotal moment.

But inequities will not, as a growing body of IT utopians has it, narrow as a matter of course. Trickle-down economics didn't work; trickle-down technology won't, either. If we stand passively in the face of great change, we risk creation of two Americas: one wired, the other not, an America divided between haves and have-nots, and knowers and know-nots. MIT affords the President an opportunity to highlight these challenges and our great--if fleeting--opportunity to overcome them.

Any solution requires two key elements: universal access to information technology and the ability to make the most of it. This Administration has made great strides toward universal access. Now, the public and private sectors must make a commensurate investment in the skills of our citizens. We believe the President can make the greatest impact with two complementary initiatives: ensuring universal computer literacy and providing universal teacher training in IT so every child in America has the skills to succeed in the Information Age.

UNIVERSAL TECHNOLOGY LITERACY: More and more students are becoming computer literate in elementary school. But for those who aren't, high school represents the last safety net before they fall unprepared into the workplace. Therefore, the President could encourage states and school districts to require, as a condition of graduation, competency in the "New Basics" --skilled use of computers as a tool for research and learning.

You have asked us to determine whether it would be desirable for all high school students to pass a computer literacy requirement. The answer is Yes. The National Academy of Science has already been tasked with the project of defining exactly what information technology "literacy" should encompass. The NAS is close to completing its report. Perhaps the President could use its findings as the basis for a graduation requirement. It probably makes sense for us to stay away from requiring students to take a distinct computer class. Experts believe that this approach doesn't help students learn to apply computer skills in meaningful ways.

UNIVERSAL TEACHER TRAINING: There has been a major education technology investment in hardware, infrastructure, and modernization at the federal, state, and local levels. It is now time to invest in our teachers. As the President himself noted, "I met with a group of young people yesterday in their 20s who said, 'What difference will it make if you connect every classroom in the country to the Information Superhighway if the teachers aren't trained to use the technology.'" PCAST concluded in 1997 that "the substantial investment in hardware, infrastructure, software, and content ... will be largely wasted if K-12 teachers are not provided with the preparation and support they need to effectively integrate information technology into their teaching."

Our current efforts are small-scale, and they are just getting off the ground. Congress has already funded several Administration initiatives that help states to train current and new teachers.

We have asked for increases in FY '99 that would allow states to train all *new* teachers, and to train at least one technology expert per school.

If the President were call for *universal* teacher training it could mean several things: providing training for *all public school* teachers, providing training for *all public high school* teachers, or helping to fund *one IT expert per school* (who would hold training sessions for all teachers and serve as an on-call troubleshooter). We think the third option is the most promising. If we were to opt for out-of-house teacher training (a week or two at a private training facility), it is likely that teachers would still need a lot of hands-on follow-up and troubleshooting. If an in-house IT expert were to do the training, seamless follow-up would be ensured.

OTHER POLICY IDEAS:

- Support the Next Generation Internet for an additional two years (NEC)
- Announce a contest to encourage students to develop NGI applications (NEC)
- Double investment in computing and communications research over 5-10 years (NEC)
- Accelerate private-sector investment in high-speed networks to homes and schools (NEC)
- Announce a date certain for requiring all new federal info be posted online (NEC)
- Develop "digital laboratories of democracy" for sharing best ideas on policies such as community policing, welfare-to-work, quality child care (NEC)
- Fund "smart community" pilots to enable better decision-making at the local level (NEC)
- Challenge a team of the best software companies, creative talent, and educators to develop high-quality software that will help lift Americans from low-wage jobs (NEC)
- Direct HHS to expand reimbursement for telemedicine through HCFA (NEC)
- Expand efforts to make quality info on health plans available on the Internet (NEC)
- Increase R & D to make computers more accessible for people with disabilities (NEC)
- Direct federal agencies to make the government's Web sites accessible for people with disabilities (NEC)
- Provide seed money to create community technology centers ("Plugged In" model) in every poor community
- Establish Universal Digital Library
- Set aside portion of wireless spectrum to speed networking within and among schools, libraries, etc.
- Create incentives for businesses to adopt schools
- Establish service initiative so college students can serve as technology instructors for public-school teachers
- Expand use of public schools as after-school technology centers for citizens of all ages
- Create "Baldrige Awards"-like program for educational software development
- Expand Tech Corps

Withdrawal/Redaction Marker
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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
004. paper	MIT Memo Outline: The Digital Divide. (2 pages)	05/1998	P5

COLLECTION:
Clinton Presidential Records
Speechwriting
Jeff Shesol
OA/Box Number: 18672

FOLDER TITLE:
Commencement 6/5/98 - Memo Drafts

2006-0467-F
vz1275

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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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
005. paper	MIT Memo Outline: The Digital Divide. (1 page)	05/1998	P5

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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
006. memo	For Michael Waldman from Jeff Shesol and Lowell Weiss. Subject: Policy Ideas for MIT Speech. (3 pages)	05/13/1998	P5

COLLECTION:
Clinton Presidential Records
Speechwriting
Jeff Shesol
OA/Box Number: 18672

FOLDER TITLE:
Commencement 6/5/98 - Memo Drafts

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April 21, 1998

MEMORANDUM

TO: MICHAEL WALDMAN
LOWELL WEISS

FROM: JEFF SHESOL

RE: TECHNOLOGY AND TRADITION

"Computing," argues Nicholas Negroponte of the MIT Media Lab, "is not about computers anymore. It is about living." (*Being Digital*, 1995, p. 6)

Relatedly, there is little intellectual value added in standing before the students and faculty of MIT and breathlessly reciting the wonders of *computing* in the Information Age: the number of Libraries of Congress a fiber can transmit per second; interactive commodes; really neat stuff your second-gen, third-wave, 21st-century toaster will be able to do. We have heard and read that litany again and again.

Far more interesting, and far more befitting a President, is a speech about *living* in the Information Age--a speech that tells the audience something fundamental about the impact of technology on our values, on the shape of our lives and communities, and our evolving sense of ourselves as a nation.

My argument is this: In the Information Age, while our most common practices and patterns of living undergo radical, relentless transformation, our underlying values must not. Information technology is the means to almost unimaginable ends; but *it should also serve traditional ends*. It should create opportunity; strengthen and broaden community; deepen our sense of personal and mutual responsibility; promote a free, civil, and spirited public discourse; widen political participation; and heighten government accountability.

Info tech provides unprecedented opportunities to enhance each of these traditional values. In the speech we can unpack them one by one and explain exactly how--for it is not enough simply to say that technology can or should do these things or, as "prophets" like Negroponte contend, that it will, inevitably. The traditional ends we seek are not in fact inevitable. They demand an awareness of the challenges we face and a determination to face them--from the threat to privacy to the dangers of increased economic concentration, job displacement, inequity, and social disintegration.

This argument--*brave new world, beloved old values*--is, I hope, a little counterintuitive, given the context. It is also in keeping with the President's vision of progressive government. It poses a challenge to the audience: keep innovating, but never forget enduring values and goals.

Policy:
* Universal Digital Library
* All public resources online by date certain
* portion of wireless spectrum for schools, libraries, etc.
* Accelerate private sector investment in high-speed networks to homes
* Incentives for businesses to adopt schools
* Teacher training academies -- private sector partnership
* College students as instructors for public-school teachers
* Other teacher training initiatives
* National version of Plugged In (TIIAP)
* Community Tech Centers
* Use of public-schools as Tech Centers for citizens of all ages
* R & D to spur educational software
* "Baldrige Awards"-like program for educational software
* Challenge re computer literacy for high school students
* E-rate
* Net Days
* Tech Corps expansion
* HUD Neighborhood Networks

e-rate — by this time next yr., x will be connected in the — poorest schools
wiring. Just kicking in.
$2b
But can't announce winning schools w/o members of Congress
Libraries have got ears with — Comm. access ctrs.

Cultural content —
AOL - African-Am

Schools (not classrms) all wired in 15 big empowerment zones
21st c. skills
* Cisco — network academies — teach kids to be network admins. → guaranteed jobs

I. Infotech is reshaping the American economy: setting the scene.
   A. Explosive growth
      1. More infotech workers (7.4m) today than auto workers in 1950s
      2. Online commerce will reach $5b by 2000
      3. Infotech accounts for 25% of all economic growth in last 5 yrs.
   B. Technology dividend: potential boon to productivity
      1. Economists (incl some MIT profs) argue tech diffusion will unleash significant improvement in productivity growth over 20 yrs
      2. Statistics suggest there is some hard evidence for this

II. Infotech will reshape American society: the challenge.
   A. Utopian view: changing the way we live our lives for the better
      1. As tech makes some tasks easier, inequality will narrow
      2. Better balance between work and family owing to increased flexibility and mobility
      3. Infotech boosts fight against crime; personal and community health; education; civil discourse; political participation
   B. Dystopian view: growing disparities
      1.

III. Time of transformation is time of opportunity: the deliverables.

get

tools

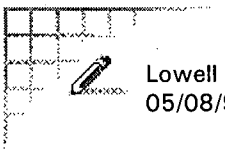
* Information technology biggest development since: [which President gave eloquent speech about industrial age? 100 yrs ago, 150 yrs ago, 200] Roosevelt
* we are in the midst of the most formative stage of the information age -- could be greatest unifying force ever, or could open a chasm of inequality
* "The issue is not just access to the new media, but rather whether differences in availability of services, technological fluency, motivation, and opportunities to learn may lead to a two-tiered world of knowers and know-nots, doers and do-nots." (Tapscott)
* some say these inequities will narrow as a matter of course -- "leave everything to market"
* I don't think so
* Trickle down economics didn't work -- neither will trickle down technology
* "Good Will Hunting" -- MIT grads will do well, genius hallsweepers, but what about friends?
*

* gold rush. Speech by James Polk. 150 years ago.

Deliv/challenges:

* TechCorps expansion (wofford)
* e-rate announcement
* Plugged In -- national roll-out (Free access to computers and the Internet seven days a week. An after-school program for neighborhood children. More than 30 computer classes each week. Entrepreneurial programs that help local teens start computer-related businesses.)
* skunkworks for software development?

And he said our
total physical output in terms of mass is hardly increased at all,
while the stock market and our national wealth has exploded, because
we have an economy based on ideas. In such an economy it
is unforgivable neglect to permit children to grow up and go through
the school system and not be able to participate in that economy
because their minds have not developed to the point where they can.



Lowell A. Weiss
05/08/98 03:47:26 PM

Record Type: Record

To: Jeffrey A. Shesol/WHO/EOP

cc:
Subject:

For all of the profound changes that have shaped America over the past 222 years, only one -- the dawn of industrialization -- heralded a wholesale transformation of our economy and our society. That is, until now. At the turn of the century, information technologies -- computers and the networks that connect them -- are changing the way much of the world works, learns, and lives. In just the five and a half years since the President took office ...

What history teaches. [exclude from memo but for last sentence]
These revolutions happen but once a century, if that. And history teaches of opportunities lost. Govts at time were laissez faire; businesses felt no social responsibility. TR & FDR responded to upheavals in wake of industrial rev. So history has taught us to think ahead, to grab these fleeting opportunities. But how?