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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	Michael Waldman to Jeff Shesol at 11:48pm. Subject: Re: MIT draft 5/27/98. (7 pages)	05/27/1998	P5

COLLECTION:

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

FOLDER TITLE:

Commencement 6/5/98 - Speech Drafts [2]

2006-0467-F

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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]

Draft 5/25/98 7:00pm

PRESIDENT WILLIAM J. CLINTON
REMARKS AT THE MIT COMMENCEMENT CEREMONY
CAMBRIDGE, MA
June 5, 1998

For four years, you have been working toward this day. You have changed and grown immeasurably, but I'm sure it isn't easy to see those changes in yourself. Your parents will help you with that, as they remind you today how naive and how cute you were when you got here, before you became seasoned and mature research scientists.

During those four years, our nation, too, has transformed in remarkable ways -- many of them the products of creativity and ingenuity on this very campus. A revolution in technology is underway, spreading throughout our society, upending old arrangements, propelling America forward into a truly new era -- the Information Age. This is more than a time of innovation. It is a time of fundamental transformation -- the kind that happens, at most, every hundred years.

But I am not here today to talk about technology, not about bits and bytes and all the things the Vice President tries so patiently to explain to me. I am here instead to talk about a timeless American value -- opportunity -- and what it means in an Age of Information.

Information technology can be the most powerful engine of growth and prosperity the world has ever known. You know that better than anyone. It can also be the greatest democratizing force -- connecting and empowering billions around the globe. But, if we are not careful and vigilant and forward-looking, this technology can limit opportunity to a privileged few, prying open a digital divide.

This spring, in a series of three commencement addresses, I am focusing on the challenges of the new century. Last month, at the United States Naval Academy, I spoke about the mission of our men and women in uniform: to protect our nation in the face of new threats, and to defend enduring values in times of change. Next week, at Portland State, I will discuss ways our nation's growing diversity can strengthen and unite America, or weaken and divide it.

Today I have come to MIT, the epicenter of seismic shifts in our economy and society, not to preach to the choir about the promise of computers. Instead, I have come here to talk about the ways we must work together in this new era to fulfill our nation's oldest ideal -- equal opportunity for all. Every graduate here today, every member of the MIT community, and indeed all Americans, must embrace this responsibility, and give meaning to an old, revolutionary ideal in a new, revolutionary time.

At the dawn of the last great transformation, the Industrial Revolution, visionary Americans recognized that the best way -- the only way -- to seize the promise of change was to widen the circle of opportunity. In the late 1850s, when new inventions like the telegraph

and the locomotive first captured the imagination of Americans, a Republican Congressman named Justin Smith Morrill took on a grand cause. He proposed a system of land-grant colleges, at least one for every state, to educate the children of farmers and laborers in the wonders of agricultural and industrial science.

This was a radical idea, in the scope and depth of its democratic aims. But at its core, Morrill's plan was pragmatic: the only way to ensure the benefits of change, the only way to widen the circle of opportunity, was to offer more education to more Americans.

The Morrill Land Grant College Act became law in July 1862, and provided seed money to these new colleges. MIT was one of them--it got \$3,409. And 56 cents. It was one of the wisest investments America has ever made.

Ever since then, MIT has been at the cutting edge of technological change. A recent study showed that if all the companies founded by MIT graduates and faculty formed their own country, it would have the 24th largest economy in the world. But don't go packing your bags or composing a new national anthem: Here in America, the 4,000 MIT-related companies employ three-quarters of a million workers, knowledge workers--in high-paying, knowledge-based jobs.

And, despite what your professors tell you, MIT is not the only one stoking this economic engine. In recent years, America's other premiere research universities have made their greatest contribution to the national economy in the realm of information technology. The rapid innovation that begins in laboratories and high-tech start-ups are fueling a new economic expansion--not just in one sector, but in the economy as a whole. In the brief time since your sophomore year, information technology has been responsible for more than a third of America's total real economic growth. By some estimates, it has shaved more than a point off the overall inflation rate and may be driving gains in overall productivity. And by the time this year's incoming freshmen graduate, Internet commerce between businesses will likely exceed \$300 billion. [comparison TK]

When Nicholas Negroponte and Jerome Wiesner founded MIT's Media Lab back in 1980, even they could scarcely have imagined that today the Lab would be developing everything from wearable computers to electronic books to quantum computers. But "computing," as Mr. Negroponte has pointed out, "is not about computers anymore. It is about living." The incredible innovations developed here and elsewhere are making our lives easier, more varied, and more interesting. Not just our lifestyles--our lives. We're not talking about whose cell phone has the most functions or whose TV has the sharpest resolution. We're talking about the contours of our lives, the fabric of our communities, and the shape of our society.

The real test of these new technologies is not their speed or their storage capacity. And the real promise of the Information Age is not whether new tools make our lives as individuals more carefree. It is whether they make our national life more meaningful. Remember that the real triumph of the industrial revolution was not the steam engine or the assembly line--it was

the opportunity given to millions of Americans to enter our national life, to join fully in the enterprise of building a great nation. As technology propels us forward, it can also move us closer to the revolutionary principle enshrined in our founding documents: opportunity for all.

An America that embraces these changes will be empowered by them, transformed by them--from the center of our cities to the quietest corners of our countryside. In rural areas even the highways don't cross, entrepreneurs can reach a worldwide market. In the classrooms of the inner city, where children page through outdated science textbooks--you know, the ones that say computers might someday be as small as station wagons--students can instantly find current materials for the cost of a phone call. Disabled Americans, displaced workers, new arrivals to our shores--each can have better access to the American dream.

But the forward rush of progress must not blur our vision. If history has taught us anything it is that opportunity does not widen as a matter of course, or as a byproduct of innovation. A century ago, the move from farm to factory challenged America's traditional notions of equality and opportunity. It took six decades to harness the benefits of unbridled industry.

None of you is likely to underestimate the sweeping nature of technological change. And none of us should underestimate the challenges it brings. We cannot point and click our way to a better future. There is no such thing as virtual opportunity. If we stand passively in the face of great change, we risk creating two Americas: one wired, the other not; an America divided between haves and have-nots, knowers and know-nots. While many Americans are surging ahead, succeeding by leaps and bounds, others are in danger of being left behind. And, in the long run, America cannot succeed without them. Information industries are projected to spawn 100,000 new jobs each year--high-skilled, high-wage jobs--and will have difficulty filling them all.

100,000 new jobs to be filled every year. And how many new graduates are here today--[number]? Those must look like pretty good odds, as you ponder the move from school to high-tech firm, or perhaps your own software start-up. If any parents in America can sit back and relax on graduation day, it's your parents. As the information revolution rolls forward into the next century, you'll be at the forefront.

.... That school of the future is actually here today. In fact, it's the TK school, here in Massachusetts, in TK town. The school is not wealthy, but the reason it is rich in results is because it has received a lot of outside help...

What is the role of the government in helping America live up to the incandescent ideal of equal opportunity in the Information Age? I believe there are three vital steps we must take.

First, we must increase our investment in basic research -- the spark that ignites the fires of innovation. Sir Isaac Newton and his apple tree aside -- fundamental scientific advances are rarely made by accident. As you well know, without government-funded basic

research, not a single one of the remarkable applied technologies we have discussed today would even exist. Not the computer. Not the Internet. Not Web browsers. Not satellites. Our economy would be stuck in another age. An age of low productivity. An age of diminishing wages. An age not of promise, but of opportunity lost.

[Kalil R&D policy TK]

Second, we must ensure universal access to information technology. As I have often said, the goal of government must be to give our citizens the tools they need to succeed in this new era. Well, modern computers, connected by modern networks, are indispensable tools in this modern day.

In my State of the Union address two years ago, I challenged the nation to connect every classroom in America to the Internet by the year 2000. Thanks to unprecedented cooperation at the federal, state, and local level and an outpouring of support from active citizens, we are on track to meet this goal. Four years ago, when you arrived at MIT, barely 3% of our classrooms were connected. Today, we have more than 30%.

And we are about to make another quantum leap forward. By the end of the year, we expect the number of connected classrooms to rise to 75%. In the historic telecommunications bill I signed two years ago, industry made a commitment to the public at large. In exchange for offering the industry a freer hand to compete in new markets, the industry pledged to help subsidize wiring and access charges for schools, libraries, and rural health centers. Unfortunately, industry is now reneging on the deal -- leaving millions of students and medical patients in the lurch.



Michael Waldman
05/27/98 09:00:48 AM

Record Type: Record

To: Lowell A. Weiss/WHO/EOP, Jeffrey A. Shesol/WHO/EOP

cc:

Subject: a few thought

* do use the May 19 memo as your outline. I think it works pretty well.

* One critical moment in the speech is the 'proclaiming' the national goal of tech literacy. It should be done with panache -- "every child, in every community, must have the same xxx" don't say "i believe every child should be technologically literate." say something like: "In the industrial age, every child had to learn the basics: reading, math, science. In the information age, to this we must add a new basic. No child will be able to thrive in the 21st Century if they do not know how to use a computer. No child will be able to rise to his or her highest potential if they do not know how to x, y, z. Every child who falls behind will be left behind by the economy of the future. So America must commit to this goal: every child should learn how to use a computer in the middle school years. and no child should graduate high school if they have not mastered the xxx that will be the key to success in the workplace not just of tomorrow, but of today." EVEN THAT IS TOO WORDY. I'm not committed to those words or even that structure. BUT that's the tone.

* I would find ways to weave MIT, its history, and its role throughout the speech -- e.g., if we talk about how government investment helped build the internet through darpa, is there an MIT component?

* You need a bugle blast of an opener.

* The Princeton speech talked about how in the industrial age, we created 12 years of public education - now in the information age, we need 14. Specifically reference this as another way we are reshaping our system to meet the needs of the info age.

* I wouldn't worry too much about the local color stuff for now. In fact, for this draft, I would consider leaving a blank space -- so that the reader goes straight for the substance. As for tone of local color & acknowledgments ... some models:

**TOO LITTLE: JFK: Address at Rice University on the Nation's Space Effort Houston, Texas
September 12, 1962**

President Pitzer, Mr. Vice President, Governor, Congressman Thomas, Senator Wiley, and Congressman Miller, Mr. Webb, Mr. Bell, scientists, distinguished guests, and ladies and gentlemen:

I appreciate your president having made me an honorary visiting professor, and I will assure you that my first lecture will be very brief.

I am delighted to be here and I'm particularly delighted to be here on this occasion.

Drucker
⑩ Utopian vision - avoid buzzword
say - not about smart toasters
MIT media lab
This is about ~~more~~
more than that
- enthuse about
eliminating divides
making existing stuff much
better - not just min. needs.
Vannevar Bush
- 1st concept of web
- ambitious, progressive
- came true

We meet at a college noted for knowledge, in a city noted for progress, in a State noted for strength, and we stand in need of all three, for we meet in an hour of change and challenge, in a decade of hope and fear, in an age of both knowledge and ignorance. The greater our knowledge increases, the greater our ignorance unfolds.

TOO MUCH/TOO CLUBBY -- Commencement Address at Yale University -- June 11, 1962

President Griswold, members of the faculty, graduates and their families, ladies and gentlemen:

Let me begin by expressing my appreciation for the very deep honor which you have conferred upon me. As General de Gaulle occasionally acknowledges America to be the daughter of Europe, so I am pleased to come to Yale, the daughter of Harvard. It might be said now that I have the best of both worlds, a Harvard education and a Yale degree.

I am particularly glad to become a Yale man because as I think about my troubles, I find that a lot of them come from other Yale men. Among businessmen I have had a minor disagreement with Roger Blough of the law school class of 1931, and I have had some complaints from my friend Henry Ford of the class of 1940. In journalism I seem to have a difference with John Hay Whitney, of the class of 1926--and sometimes I also displease Henry Luce of the class of 1920, not to mention also William F. Buckley, Jr. of the class of 1950. I even have some trouble with my Yale advisers. I get along with them, but I am not always sure how they get along with each other.

I have the warmest feelings for Chester Bowles of the class of 1924, and for Dean Acheson of the class of 1915, and my assistant, McGeorge Bundy, of the class of 1940. But I am not 100 percent sure that these three wise and experienced Yale men wholly agree with each other on every issue.

So this administration which aims for peaceful cooperation among all Americans has been the victim of a certain natural pugnacity developed in this city among Yale men. Now that I, too, am a Yale man, it is time for peace. Last week at West Point, in the historic tradition of that Academy, I availed myself of the powers of the Commander in Chief to remit all sentences of offending cadets. In that same spirit, and in the historic tradition of Yale, let me now offer to smoke the clay pipe of friendship with all my brother Elis, and I hope that they may be friends not only with me but even with each other.

In any event, I am very glad to be here and as a new member of the club, I have been checking to see what earlier links existed between the institution of the Presidency and Yale. I found that a member of the class of 1878, William Howard Taft, served one term in the White House as preparation for becoming a member of this faculty. And a graduate of 1804, John C. Calhoun, regarded the Vice Presidency, quite naturally, as too lowly a status for a Yale alumnus--and became the only man in history to ever resign that office.

Calhoun in 1804 and Taft in 1878 graduated into a world very different from ours today.

AND NOT (FROM ONE OF THE BEST EVER PRESIDENTIAL SPEECHES!)...

LBJ, Remarks at the University of Michigan

May 22, 1964

President Hatcher, Governor Romney, Senators McNamara and Hart, Congressmen Meader and Staebler, and other members of the fine Michigan delegation, members of the graduating class, my fellow Americans:

It is a great pleasure to be here today. This university has been coeducational since 1870, but I do not believe it was on the basis of your accomplishments that a Detroit high school girl said, "In choosing a college, you first have to decide whether you want a coeducational school or an educational school."

Well, we can find both here at Michigan, although perhaps at different hours.

I came out here today very anxious to meet the Michigan student whose father told a friend of mine that his son's education had been a real value. It stopped his mother from bragging about him.

I have come today from the turmoil of your Capital to the tranquility of your campus to speak about the future of your country.

Draft 5/28/98 5:30pm

PRESIDENT WILLIAM J. CLINTON
REMARKS AT THE MIT COMMENCEMENT CEREMONY
CAMBRIDGE, MASSACHUSETTS
June 5, 1998

In 1853, a brilliant geologist arrived in Boston with his family -- and one great idea. His name was William Barton Rogers, and his idea was to start a new institution for a new age. It would be a college unlike any in America, and devoted to helping students from the farm meet the needs of a society in transition to the factory.

Eight years later, MIT was born. And ever since, this great university has been at the leading edge of technological change, sparking innovation, spreading opportunity throughout our land. Today, if all the companies founded by MIT graduates and faculty formed their own country, it would have the 24th largest economy in the world. The 4,000 MIT-related companies employ three-quarters of a million workers -- knowledge workers -- in high-paying, high-skilled jobs.

Your success is a sign of the times. A revolution in technology is underway, and its scope and depth are staggering. It is spreading throughout our society, upending old arrangements, propelling America into a truly new era -- the Information Age. It is more than a time of innovation. It is a time of fundamental transformation -- the kind that happens, at most, every hundred years. It is a revolution in communications. Commerce. Industry. Imagination. The hallmarks of this new era -- its restless innovation, its boundless creativity, its endless enterprise -- are the qualities of the American people. They are why it is our nation that launched this revolution, and why we will continue to lead it.

But I am not here today to talk about the new marvels of engineering; you know far more of them than I do. Instead, I have come to MIT, an epicenter of the seismic shifts in our economy and society, to talk about enduring American values and what they mean in an Information Age.

America was founded on a revolutionary principle, enshrined in our founding documents: opportunity for all. More than any place in the world, this is a nation where every child kindles the spark of possibility, where ordinary citizens take the initiative to do extraordinary things. Our history can be understood as a struggle -- on foreign fields and factory floors, in town halls and the corridors of Congress -- to widen that circle of opportunity, to make real the promise of America. Every generation has met this challenge. We meet it anew today. As we approach the 21st century, old values like opportunity are being tested, and must be defended and renewed. Whether we succeed will define our nation in the next century.

This spring, in a series of three commencement addresses, I am focusing on this task.

Last month, I spoke about the mission of our men and women in uniform: to protect our nation and defend enduring principles in times of change. Next week, I will discuss ways our nation's growing diversity can either strengthen and unite America, or weaken and divide it. The technologies of the Information Age pose similar challenges, and demand the same choice.

The choice is simple and stark. Information technology can extend opportunity to all Americans -- or a privileged few. It can accelerate the most powerful engine of growth and prosperity the world has ever known -- or wrench open a digital divide. Information technology can expand the ranks of entrepreneurs -- or be restricted to elites. It can erase lines of inequity -- or etch them indelibly.

This is our choice, and if history has taught us anything it is that choices cannot be deferred; opportunity does not widen as a matter of course. We cannot point and click our way to a better future. There is no such thing as virtual opportunity. If we stand passively in the face of great change, we risk creating two Americas: one wired, the other not; an America divided between haves and have-nots, between those who conquer change and those who fear it.

I don't see much fear in your eyes today. I see excitement, pride, relief, maybe a little early nostalgia. I also see confidence -- confidence that the opportunities of this new age belong to you. And they do. Information technology is a growth industry -- even bigger than the auto industry at the peak of the 1950s. In the time since you arrived here as freshmen, information technology has been responsible for more than a third of our nation's total economic growth. Business investment in computers has increased by nearly 500 percent. It's no wonder many economists think it's driving gains in productivity and has cut a point off the inflation rate. And by the time this year's freshmen graduate, Internet commerce between businesses will likely exceed \$300 billion.

When Nicholas Negroponte and Jerome Wiesner founded MIT's Media Lab back in 1980, even they could scarcely have predicted that the system they used for e-mail would someday conduct business on that scale, or that the Lab would develop everything from wearable keyboards to electronic books to quantum computers. Incredible innovations are making our lives easier, more varied, and more interesting.

But the real test of these technologies is not their speed or their storage capacity. And the real promise of the Information Age is not whether our lifestyles are more carefree. It is whether our national life is more meaningful. Remember that the real triumph of the industrial revolution was not the steam engine or the assembly line -- it was the opportunity given to millions of Americans to enter our national life, to join fully in the enterprise of building a great nation.

In the Information Age, the potential for expanding opportunity is orders of magnitude greater than ever before. The tools we are developing today can tear down barriers based on race, gender, geography, income, disability, and age. The Internet is the fastest-growing community in the history of humankind. In just a few years, children in the Ozarks of

Arkansas will be able to stretch a hand across a keyboard and reach every book ever written, every painting ever painted, every symphony ever composed. Soon, advanced satellites will allow villages in rural Africa that do not even have a phone to exchange information with doctors and engineers and teachers half a world away. Miraculous computer technologies are opening the doors of school and work to those whose disabilities once limited them to a life no larger than a single room. African-Americans teenagers in struggling inner cities are becoming electronic entrepreneurs. Every day, information technology is giving more Americans greater access to the American dream.

East Somerville is just a couple of miles from here, but in some ways it's a lot further than that. Jobs are more scarce, crime is more common, and hope can't help but suffer as a result. But at East Somerville Community School, which runs from first to eighth grade, technology is giving young people an early -- and enormous -- boost in life. Teachers with advanced degrees in information technology, backed by grants from Time-Warner Cable, are helping their colleagues bring the Internet, videoconferencing, and multimedia design into the classroom. And at East Somerville, no one is too young to start. By the end of first grade, every single child has used a computer to research, write, and publish a small book. Now all they need is an agent.

But successes like these are not preordained.

...[risk to opportunity TK]

There is nothing abstract about opportunity; it is neither a symbol nor a code word. It is something very real, a fundamental value, and vital to the strength of our nation. Economists tell us the information industries will spawn 100,000 new jobs each year -- and are already struggling to fill them all. And these are good jobs, jobs that pay 60 percent more than the average private sector salary. In the new global economy, one founded on ideas and information, it is simply not enough to say that America is producing more winners than losers. It is essential that all Americans have the knowledge to succeed. It is essential that all Americans must access to the newest tools and have the skills and motivation to use them.

There is no question that improving education is our most important national mission. That is why we have worked to make sure that every 8 year old can read, every 12-year-old can log onto the Internet, and every 18-year-old can go to college ... [more on ed TK]

...

Draft 5/28/98 11:30am

PRESIDENT WILLIAM J. CLINTON
REMARKS AT THE MIT COMMENCEMENT CEREMONY
CAMBRIDGE, MASSACHUSETTS
June 5, 1998

[cradle of revolution intro?]

At the dawn of the last great transformation, the Industrial Revolution, visionary Americans recognized that the best way -- the only way -- to seize the promise of change was to widen the circle of opportunity. In the late 1850s, when new inventions like the telegraph and the locomotive first captured the imagination of Americans, a Republican Congressman named Justin Smith Morrill took on a grand cause. He proposed a system of land-grant colleges, at least one for every state, to educate the children of farmers and laborers in the wonders of agricultural and industrial science.

This was a radical idea, in the scope and depth of its democratic aims. But at its core, Morrill's plan was pragmatic: the only way to ensure the benefits of change, the only way to widen the circle of opportunity, was to offer more education to more Americans.

The Morrill Land Grant College Act became law in July 1862, and provided seed money and land to help found [TK] new colleges. MIT received \$3,409 and 56 cents -- a modest grant, even in those days. It was one of the wisest investments America has ever made.

Ever since then, MIT has been at the cutting edge of technological change. A recent study showed that if all the companies founded by MIT graduates and faculty formed their own country, it would have the 24th largest economy in the world. But don't go packing your bags or composing a new national anthem: Here in America, the 4,000 MIT-related companies employ three-quarters of a million workers, knowledge workers -- in high-paying, knowledge-based jobs. Once again, MIT is at the leading edge of a new era.

...

[Dawn of new age]

A revolution in technology is underway. It is spreading throughout our society, upending old arrangements, propelling America forward into a truly new era -- the Information Age. It is more than a time of innovation. It is a time of fundamental transformation -- the kind that happens, at most, every hundred years.

[Info age paragraph from memo]

You know this; you have helped bring it about. But I am not here today to talk about technology, not about bits and bytes and all the things the Vice President tries so patiently to

explain to me. I am here instead to talk about a timeless American value -- opportunity -- and what it means in an Age of Information.

[New challenges to old values]

This spring, in a series of three commencement addresses, I am focusing on the challenges of the new century. Last month, at the United States Naval Academy, I spoke about the mission of our men and women in uniform: to protect our nation in the face of new threats, and to defend enduring values in times of change. Next week, at Portland State, I will discuss ways our nation's growing diversity can either strengthen and unite America, or weaken and divide it.

[segue to choice; perhaps paragraph from memo]

Today I have come to MIT, the epicenter of seismic shifts in our economy and society, not to preach to the choir about the promise of computers. Instead, I have come here to talk about the ways we must work together in this new era to fulfill our nation's oldest ideal -- opportunity for all. Every graduate here today, every member of the MIT community, and indeed all Americans, must embrace this responsibility, and give meaning to an old, revolutionary ideal in a new, revolutionary time.

Information technology can be the most powerful engine of growth and prosperity the world has ever known. You know that better than anyone. It can also be the greatest democratizing force -- connecting and empowering billions around the globe. But, if we are not careful and vigilant and forward-looking, this technology can limit opportunity to a privileged few, prying open a digital divide.

...

[Econ gush]

Computers, of course, are nothing new. What is new is the diffusion of computers throughout the economy, and that is having an enormous effect -- not just in one sector, but in the economy as a whole. Business investment in computers has increased by nearly 500 percent since you arrived here as freshmen. Many economists say that's why American productivity is surging. By some estimates, it has shaved more than a point off the overall inflation rate. Since 1994, information technology has accounted for more than a third of America's total real economic growth. And by the time this year's incoming freshmen graduate, Internet commerce between businesses will likely exceed \$300 billion.

When Nicholas Negroponte and Jerome Wiesner founded MIT's Media Lab back in 1980, even they could scarcely have imagined that the system they used for e-mail would conduct business on that scale. Nor could they have predicted the Lab would someday develop everything from wearable keyboards to electronic books to quantum computers. The incredible innovations developed here and elsewhere are making our lives easier, more varied, and more interesting. Not just our lifestyles--our lives. We're not talking about which cell

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An America that embraces these changes will be empowered by them, transformed by them -- from the center of our cities to the quietest corners of our countryside. In rural areas even the highways don't cross, entrepreneurs can reach a worldwide market. In the classrooms of the inner city, where children page through outdated science textbooks--you know, the ones that say computers might someday be as small as station wagons--students can instantly find current materials for the cost of a phone call. Disabled Americans, displaced workers, new arrivals to our shores -- all can have better access to the American dream.

[Tale of One School]

[But... Risks to opportunity]

But the forward rush of progress must not blur our vision. If history has taught us anything it is that opportunity does not widen as a matter of course or as a byproduct of innovation. A century ago, the move from farm to factory challenged America's traditional notions of opportunity. It took six decades to adjust, and to harness the benefits of unbridled industry.

None of you is likely to underestimate the sweeping changes of the Information Age, and none of us should underplay the challenges they bring. We cannot point and click our way to a better future. There is no such thing as virtual opportunity. If we stand passively in the face of great change, we risk creating two Americas: one wired, the other not; an America divided between haves and have-nots, between those who conquer change and those who fear it. While many Americans are surging ahead, succeeding by leaps and bounds, others are in danger of being left behind. And, in the long run, America cannot succeed without them.

[Risks to econ]

Information industries are projected to spawn 100,000 new jobs each year--high-skilled, high-wage jobs -- and will have difficulty filling them all.

100,000 new jobs to be filled every year. And how many new graduates are here today -- [number]? Those must look like pretty good prospects, as you consider your move

from school to high-tech firm, or ponder your own software start-up. If any parents in America can sit back and relax on graduation day, it's your parents. As the information revolution rolls ahead into the next century, you'll be at the forefront.

But if we want to fill those empty offices and workstations, the answer is not to have everybody to go to MIT. It's to ensure that those who don't go to MIT -- or a four-year college at all -- still have the tools and skills to succeed in the Information Economy. And to make this a reality, to help our nation fulfill the ideal of opportunity, we must take three vital steps.

[Importance of ed.; accomplishments]

First, we must increase our investment in basic research -- the spark that ignites the fires of innovation. Sir Isaac Newton and his apple tree aside, fundamental scientific advances are rarely made by accident. As you well know, without government-funded basic research, not a single one of the remarkable applied technologies we've discussed today would even exist. Not satellites. Not the computer. Not the Internet. Not Web browsers. Our economy would be stuck in an age of low productivity, of diminishing wages, of lost opportunity.

[Kalil R&D policy TK]

Second, to give all Americans the tools they need to succeed, we must ensure universal access to information technology. We are already making great strides toward this goal. In my State of the Union address two years ago, I challenged the nation to connect every American classroom to the Internet by the year 2000. Thanks to unprecedented cooperation at the federal, state, and local level and an outpouring of support from active citizens, we are well on track to meet this goal. Four years ago, when you arrived at MIT, barely 3 percent of America's classrooms were connected. Today, more than 30 percent are online.

And we are about to make another quantum leap forward, increasing the number of connected classrooms to 75 percent. But for this to happen, industry must do its part. It must make good on the public commitment it made two years ago, as part of the historic telecommunications bill. The private sector's pledge to help with the cost of wiring schools, libraries, and rural health centers remains an important one. If businesses renege, as some are now threatening to do, millions of students and patients will be denied the opportunity to participate in the new economy. Some businesses -- and their allies in Congress -- say we cannot afford to make this investment in universal access. I say, we can't afford not to. On this issue, there is no left or right. Only backward or forward. I call upon Congress to fully fund this initiative to plug schools and libraries into the promise of the Information Age.

While we cannot take universal access for granted, we are making important gains, and our next great challenge is clear. Equal opportunity in the Information Age now requires universal technology literacy and training. All the computers and connections in the world will go to waste if our students and teachers don't have the knowledge -- or the inspiration --

to make use of these powerful tools.

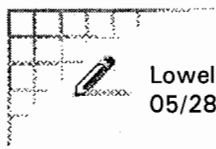
So today, I call on every state to work with us to help our students meet minimum standards of technology literacy for the Information Age. Ten states with an eye to the future have already added their own innovative forms of technology-literacy requirements for high school students. I applaud their efforts, but I believe we must reach our students even earlier. Every middle school student in America must be able to tap into the Internet's vast resources and handle other evolving computer tools with as much comfort and skill as they use a school library today.

How our schools help their students reach this goal should be determined by each individual state. Some will fold computer lessons into existing classes in subjects ranging from math and science to English and history; others will have separate computer classes. But whatever the means, the goal remains the same: to complement the basics, not supplant them. Math, science and English will remain, of course, essential. But if we are to expand opportunity in the 21st century, then every American must also be technology-literate -- and that means every child must be taught those skills when it counts.

To help states reach this ambitious Information Age goal, every middle school must have the trained technology experts it needs. Today, of the [TK] teachers who have a computer in their classrooms, only [TK] percent have received even a week of training in how best to put them to use. America can -- and must -- do better. That is why I am proposing to help every state that adopts these voluntary technology-literacy standards by training a core of technology leaders in each middle school. These experts -- either teachers, librarians, or dedicated computer specialists -- will then train their colleagues, help them integrate computer tools into classes, and serve as troubleshooters when problems arise. In every community in America, we will empower our teachers to master 21st century tools and to spread 21st century skills.

[challenges to students, universities, private sector TK]

[conclusion TK]



Lowell A. Weiss
05/28/98 11:56:00 AM

Record Type: Record

To: Jeffrey A. Shesol/WHO/EOP

cc:

Subject: spoiled soup

Draft 12/18/97 7:00pm

**PRESIDENT WILLIAM J. CLINTON
REMARKS ON THE NEW ECONOMY
AT THE BALDRIGE NATIONAL QUALITY AWARDS CEREMONY
WASHINGTON, DC**

December 19, 1997

Acknowledgments: Sec. Daley; Ernie Davenport and the Baldrige Award Foundation; Rep. Pete Stark; Letitia, Robert, and Nancy Baldrige; Baldrige Program Director Harry Hertz; Baldrige Award winners, examiners, and judges.

This is the fourth year I've had the privilege of honoring the Baldrige Quality Award winners -- the Nobel laureates of American business. At a time of great challenge and change in the global economy, each of the four companies we are celebrating is helping America lead the way. The 3M Dental Products Division, Merrill Lynch Credit Corporation, Solectron, and XBS are showing the world that it is possible to enhance competitiveness even as we make our companies better places to work and our communities better places to live. Your employees are stakeholders in your progress, your innovations swift, your vision global, your unwavering goal excellence. It's no wonder your successes are mounting. We thank you for your example and congratulate you on this great achievement.

I also want to congratulate the Department of Commerce, its National Institute of Standards and Technology, and the Baldrige Award's extended family on the award's upcoming 10th anniversary. When Congress created this award a decade ago, even the most visionary strategic thinkers could not have foreseen the success of this program. The Baldrige Award has been emulated in almost all 50 states and throughout the world.

Today, as we celebrate the innovations the Baldrige Award supports and shares, we also celebrate the remarkable transformation we are experiencing throughout our economy. All of you know better than anyone that this transformation was not inevitable. (It was not the result of an impersonal force. Americans have been the makers of the new economy -- its flexibility, its

innovation, its creativity and its enterprise are qualities at the core of the American character. And that is why we are leading the world in the cutting edge industries -- from semiconductors to supercomputers to biotechnology --- that are driving the global market of the new economy.

In 1992, I vowed that I would give the American people the tools to create 8 Million new jobs. Some questioned the wisdom of setting such an ambitious public goal. But by the end of four years we had created 11 Million, and now we're about to pass 14 Million. If we continue on this course, taking full advantage of the new realities of the new economy, I believe that there are no ceilings on how many jobs America can create.

To be sure, the new economy does not herald the end of inflation or the end of the business cycle. These are rosy scenarios no one can promise. There will still be ups and downs; they will demand action. But we can better control these cycles if we understand that the economy has fundamentally changed. Today, more Americans work in the information-technology industry than worked in the auto industry at the height of the 1950s. And our auto industry is number one in the world again -- in part because of new ways of working and new technological innovations.

When I took office, the new economy was within our reach, but our policies were mired in the past. We put in place a bold economic strategy to shrink the deficit and balance the budget, invest in our people, and lower unfair barriers to our goods and services. The philosophy was simple: remove the impediments that restrained the burgeoning new economy and give our people the tools and training to help them race ahead. Very few thought such a dramatic new course would work. We proved them wrong.

First, we reduced the nation's massive deficits. Even before our balanced budget took effect, we cut the deficit by more than 90%, setting in motion a cascade of victories for our businesses and our people. Deficit reduction helped lead to lower interest rates, reducing the cost of home mortgages and business loans. These rate reductions, in turn, have led to historic levels of home-ownership and investments in equipment and technology by businesses. For example, Solectron has invested in an advanced modeling system that has cut the time it takes to turn a design into a prototype from two weeks to two days. Transformations like these are taking place across America -- not only making customers happier but also contributing in two key ways to our 7-year economic expansion. New technologies are leading to increases in productivity, which has helped keep inflation in check. And by speeding up design and delivery, new technologies are helping businesses respond more quickly to sudden changes in their customer's needs -- minimizing the inventory pile-ups that have contributed to recessions in the past.

Second, we are preparing the nation to reap the vast benefits of global

markets. We supported historic deregulation efforts in telecommunications, interstate banking, shipping, and trucking. We have delivered on our promise to make our own government work better and cost less, with 300,000 fewer people and 16,000 fewer pages of regulations. And we have consistently worked to bring down tariff barriers around the world. The General Agreement on Tariffs and Trade, which we completed in 1993, represents the largest tax cut in history. We have achieved more than 200 tough trade agreements to expand exports and create jobs here at home.

Today, our exports are at an all-time high, and we are the world's number one exporter. But there are still \$30 billion in tariffs -- \$30 billion in foreign taxes -- that we must tear down. I was disappointed last month when the House of Representatives failed to take the opportunity to continue our traditional fast-track trading authority -- in effect, tying our negotiators' hands. We cannot sit idly by while our global competitors strike trade deals that keep taxes high on American producers -- and consumers. That's an America-last strategy. American industry deserves better -- and I am committed to moving forward early next year to get the job done.

Third, are making historic investments in our people. In the 21st century the true wealth of nations will be the creativity -- and the skills -- of our people. We know the rewards of the new economy do not fall evenly. Two decades ago, the typical worker with a college degree made about 40% more than a worker with a high school diploma; today college graduates earn almost 75% more. Skills have never been more important. Nearly 90% of manufacturers are experiencing a shortage of qualified workers in at least one job category. In the field of information technology, the hunt for employees with high-tech skills has reached a fevered pace.

Greatest u. but not best 2ndary schools - SOTU

~~Every manager knows that improving and expanding access to education and training must be our most important missions. And that is why we have worked to make sure every 8-year-old can read, every 12-year-old can log on to the Internet, and every 18-year-old can go to college. We have made the largest investment in higher education since the G.I. Bill a half century ago, with a dramatic increase in Pell grant scholarships and a new HOPE scholarship for every student willing to work hard. We are harnessing the energy of citizens to meet the challenge of teaching every child to read. We are moving forward to renew our public schools, insisting on high national standards of academic achievement.~~ *standards*

~~There's no question that we must do more to help workers who suffer from the dislocation that can come from changes in technology and global trade. While we know the new economy is producing far more winners than losers, that is simply not good enough. We must ensure that all Americans, regardless of age or origin, have the tools they need to adapt to change and make the most of their God-given potential. If we fail to do this, we will be doing more than squandering the innate talent of our people. We may slow the creation of good jobs, inflation may rise, and our nation may fall behind.~~

There are other challenges we must confront if we are to go forward. As we

have seen in Asia over the past few months, the globalization of financial markets presents puts a premium on financial cooperation among all nations. That's why, with our economic partners, we developed a plan to help Asian economies weather the turmoil there. That plan emphasizes, first, that the countries in difficulty move quickly to put in place strong economic policies; and, second, that the International Monetary Fund and other international institutions play the leading role so that the U.S. and other countries serve as a second line of defense against global crises. That level of cooperation and coordination is critical in an economy where destinies are linked more closely than ever before.

We must also address new challenges to our values. We must not allow new technologies to crack the walls of privacy and autonomy free citizens are guaranteed in a free society. We must be vigilant in protecting our children from unhealthy products and images new technologies instantly put within their reach -- like pornography, hate speech, and alcohol accessible through the Internet. We must also uphold traditional protections for consumers and competitors. New technologies, new management techniques, new markets only underline our fundamental responsibility to break up unfair trade practices wherever we find them. In the new economy, the rules apply to all, no matter what their claim to privilege. Opportunity for all simply cannot thrive without accountability from all.

Today, as we prepare to enter a new century, the new economy is opening a world of unprecedented opportunities -- opportunities to use our minds in new ways, to expand our access to knowledge, to add flexibility to our work and family lives. We must work together to continue to shape the new economy, so that it maximizes our strengths and reflects our values and gives every American a stake in our future. I thank each of you for your contribution to our progress. Congratulations and God bless you.

WHITE HOUSE STAFFING MEMORANDUM

SMAT

Date: 5/31/98

ACTION / CONCURRENCE / COMMENT DUE BY:

6/3/98

JDP

GS perling

M. Waldman

J. Shesol

A. Lewis

Subject:

M.I.T. SPEECH

	ACTION	FYI		ACTION	FYI
VICE PRESIDENT	☒	☐	McCURRY	☐	☒
BOWLES	☒	☐	McGINTY	☐	☐
McLARTY	☐	☐	NASH	☐	☐
PODESTA	☒	☐	REED	☒	☐
MATHEWS	☒	☐	RUFF	☐	☐
RAINES	☐	☐	SMITH	☐	☐
BEGALA	☒	☐	SOSNIK	☒	☐
BERGER	☐	☐	SPERLING	☒	☐
BLUMENTHAL	☒	☐	STEIN	☒	☐
ECHAVESTE	☒	☐	STERN	☐	☐
EMANUEL	☒	☐	STREETT	☐	☐
GIBBONS	☐	☐	VERVEER	☐	☐
IBARRA	☐	☐	WALDMAN	☒	☐
KLAIN	☒	☐	YELLEN	☐	☐
LEWIS	☒	☐	<u>MIKE COHEN</u>	☒	☐
LINDSEY	☐	☐	<u>IRA MAGAZINER</u>	☒	☐
MARSHALL	☐	☐		☐	☐

REMARKS:

RESPONSE:

Comments TO JEFF SHESOL
OR LOWELL WEISS

193 OEOR

Draft 5/31/98 4:00pm

**PRESIDENT WILLIAM J. CLINTON
"OPPORTUNITY IN THE INFORMATION AGE"
COMMENCEMENT ADDRESS
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE, MASSACHUSETTS
June 5, 1998**

In 1853, a brilliant geologist arrived in Boston with his family -- and one great idea. His name was William Barton Rogers, and his vision was to start an institution of practical knowledge, unlike any in America; a college devoted to helping the sons and daughters of New England speed America into the emerging industrial age.

Eight years later, Rogers' vision became a reality, and MIT was born. Ever since, this great university has been at the leading edge of technological change, sparking innovation, spreading opportunity throughout our land. Today, if all the companies founded by MIT graduates and faculty formed their own country, it would have the 24th largest economy in the world. These MIT-related companies employ hundreds of thousands of workers -- knowledge workers -- in high-paying, high-skilled jobs.

Your success is a sign of the times. As you know better than anyone, a revolution in technology is underway, and its scope and depth are staggering. It is spreading throughout our society, upending old arrangements, propelling America into a truly new era -- the Information Age. This revolution did not begin with a "shot heard round the world," like the one fired by patriots not far from here, two centuries ago. No one shot, no single catalyst, sparked the Information Revolution. There have been many catalysts, in laboratories and libraries, in start-ups and blue chips, in homes and even in dorm rooms -- across this great nation and, indeed, around the world.

This is more than a time of innovation. It is a time of fundamental transformation -- the kind that happens, at most, every hundred years. It is a revolution in communications. Commerce. Industry. Imagination. The hallmarks of this new era -- its restless invention, its boundless creativity, its endless enterprise -- are the qualities at the core of the American character. They are why our nation launched this revolution, and why we will continue to lead it.

I am not here today to talk about the new marvels of science and engineering; you know far more of them than I do. Instead, I have come to MIT, an epicenter of the seismic shifts in our economy and society, to talk about enduring American values and what they mean in this revolutionary time. I have come to talk about the responsibility you have and the responsibility we all have to include every American in the promise of this new age.

From the start, America's greatest mission has been the fulfillment of a single, eternal ideal: opportunity for all. More than any place in the world, this is a nation where the spark of possibility kindles within every child, where ordinary citizens can do extraordinary things. Our history can be understood as a struggle -- on foreign fields and factory floors, in town halls and the corridors of Congress -- to widen that circle of opportunity, to deepen the meaning of freedom, to make real the promise of America. Every generation has met this challenge. We face it anew today. As we approach the 21st century, our commitment to values like opportunity are being tested. They must be defended and renewed. Our efforts today will define our nation in the next century.

This spring, as I speak to graduating students, I am focusing on this task. Last month, I spoke about the mission of our men and women in uniform: to protect our nation and defend enduring principles against the new and changing threat of terrorism. Next week, I will discuss how our nation's third great wave of immigration can either strengthen and unite America, or weaken and divide it. The technologies of the Information Age pose similar challenges, and demand the same choice.

The choice is simple. We can extend opportunity to all Americans -- or leave many behind. We can erase lines of inequity -- or etch them indelibly. We can accelerate the most powerful engine of growth and prosperity the world has ever known -- or allow that engine to stall.

History has taught us that choices cannot be deferred; opportunity does not widen as a matter of course. There is no such thing as virtual opportunity. We cannot point and click our way to a better future. If we stand passively in the face of this great transformation, we will fail to fulfill the promise of this new age. That promise is profound.

The Information Age is transforming the way we work. The high-tech industry employs more people today than the auto industry did at its height in the 1950s. The auto and steel industries, in turn, have been revived by the new technologies -- sharpening America's competitive edge. And among the industries that make the most use of technology R&D are construction, transport and storage, and retail stores.

It is transforming the way we live. The appliances in a typical American home now have more computing power than MIT did just [a few decades] ago.

It is transforming the way we communicate. On any given day, more messages are delivered by e-mail than by the U.S. Postal Service. [CK] We have another good illustration right here. This ceremony is being broadcast live on the Internet, so people can join in from around the world. [joke]

It is transforming the way we learn. A [TK]-foot stack of CD-Roms can store more

reference material than all the stacks of [MIT Library].

It is a powerful, sweeping transformation -- the scope of which we have only begun to comprehend. But we can already see its greatest potential -- giving millions of Americans the opportunity to participate more fully in our national life, to join more fully in the enterprise of building our great nation.

The tools we develop today are bringing down mighty barriers -- of race, gender, geography, income, disability, and age. The disabled are opening doors long closed to them -- doors of school, of work, of possibility. Small businesses are competing in worldwide markets once reserved for the most powerful corporations. Children will be able to stretch a hand across a keyboard and reach every book ever written, every painting ever painted, every symphony ever composed.

For the very first time, a child in the most isolated inner city or rural town can have access to the same world of knowledge, at the same instant, as a child in the most affluent suburb. Imagine the revolutionary, democratizing potential this can bring. Imagine the enormous benefits to our economy, to our society, if not just a fraction but all young people entering the workforce master this key set of 21st century skills.

But as we imagine the future, we must remember the lessons of the past. History teaches us that even as new technologies create growth and new opportunity, they can heighten economic inequalities and sharpen social divisions. That is what happened with the mechanization of agriculture. That is what happened in the Industrial Revolution. As we move into the Information Age, we have it within our power to avoid these mistakes. We can reap the growth that comes from revolutionary new technologies -- and at the same time, use these technologies to eliminate, not widen, the disparities that exist.

Until every child has a computer in the classroom and the skills to use it . . . until every student can tap the enormous resources of the Internet . . . until every high-tech company can find skilled workers to fill its high-wage jobs . . . America will miss the full promise of the Information Age.

Extending opportunity to all our citizens in this Information Age is a central challenge for our generation. It is a challenge for the students and professors here and in all our nation's centers of science and technology. It is a challenge for the leaders of industry. And it is a core challenge for our national leaders as well.

How, as we move into the 21st century, will America meet this challenge?

First -- we must help you, the scientists and engineers who are driving these developments, to accelerate this revolution. Since the Class of 1998 arrived here as first-year students, information technology has been responsible for more than a third of our nation's

total economic growth. And a growing, thriving economy is the most basic source of opportunity.

That is why America must increase investment in basic research. As you well know, without government-funded basic research, not a single one of the remarkable technologies we've discussed today would even exist. Not the computer. Not the Internet. Not Web browsers. So in the budget I will submit to for Fiscal Year 2000, I will ask for a doubling of the support for basic computer research. The first budget of the 21st Century should prepare our economy for the 21st Century.

Cost?
Budget?

We must also prepare our children. We must make sure that the opportunities of the Information Age will belong to all of them. And that is why, second, we must ensure that every young American has access to the new technologies.

We are already making great strides. In my State of the Union address two years ago, I challenged the nation to connect every American classroom to the Internet by the year 2000. Thanks to unprecedented cooperation at the federal, state, and local levels, an outpouring of support from active citizens, and the decreasing cost of computers, we are well on track to meet this goal. Four years ago, when you arrived at MIT, barely 3 percent of America's classrooms were connected. By the end of this year, we will have reached [XX] percent of all classrooms.

But to make this quantum leap, we must all do our part. You may have heard recently about something called the e-rate, the most crucial initiative we have launched to help connect America's schools, libraries, and rural health centers to the Internet. Some businesses have called on Congress to repeal this initiative. They say America can't afford to provide discounts to these institutions of learning and health. I say, we can't afford not to. Thousands of poor schools and libraries are in desperate need of discounts. They simply cannot plug into the Information Age without them. At a sunlit moment of prosperity, there is no reason in the world anyone has to be left in the dark.

But all the computers and connections in the world will go to waste if our students and teachers don't have the knowledge -- or the inspiration -- to make use of these powerful tools.

For five years now, we have made education America's number one priority. That is what this new era demands. That is why we created HOPE scholarships and expanded Pell Grants to make the 13th and 14th years of education as universal as the first 12 are today. That is why we have worked to make our public schools the best in the world, reducing class size, adding teachers, and demanding high national standards in the basics: math, science, and English.

???

The basics remain what they have always been. They must be mastered. But the Information Age, the new economy, will demand the basics and beyond. That is why, third,

this nation must commit to a new imperative: computer literacy for every child. We would not let a child graduate from middle school without knowing how to read. We cannot let a child graduate from middle school without knowing how to use a computer to learn.

Already, ten states with an eye to the future have made computer literacy a requirement of graduation from high school. But there is no reason we should not help our children meet this goal in their middle school years. I believe that every child, in every state, should leave middle school able to use computers and the Internet as tools for learning, research, communication, and collaboration. Students should feel as confident with a keyboard as they do with a chalkboard. Students should be as familiar with a laptop as they are with a textbook. That is the way we will ensure opportunity for all in the Information Age.

We will help every state to achieve this ambitious goal. Today, I propose a 21st Century Technology Leadership Fund -- to create a corps of trained technology experts, at least one for every American middle school. In every community in America, we will empower teachers, and teachers will empower students -- to master 21st century tools.

*Cost?
Budget*

Today I have pledged the resources and the unrelenting efforts of our nation to meet these new challenges, and to renew our enduring values. But the challenges of the Information Age will not be resolved by government or a high-tech fix. We will only fulfill the promise of this revolution if we work together in the manner we launched it: together, and with creativity, resolve, and a restless spirit of innovation.

This mission must mobilize our entire society. A new age brings new responsibilities; and the Information Age creates a special responsibility for those who both fuel and enjoy such unparalleled prosperity. To the thriving new companies that line Route 128 and Silicon Valley, I issue this challenge: use your power to empower others. Invest in a school; embrace a community in need; endow an eager young mind with opportunity. Commit your considerable resources, and do not rest until every one of those children is computer-literate -- and has the tools and skills to succeed in the 21st century.

And to you, the MIT graduating class of 1998, I offer my congratulations -- for challenges conquered, for projects completed, for goals reached and even surpassed. You and your parents should be very proud -- and very confident as you venture forth from this campus. From information technology to economics, and from physics to political science, this is an age of possibility -- and all the possibilities of this new age belong to you. You are at the peak of your powers, both physical and intellectual, and the world will rightly reward you for the work you do. But to make the very most of the opportunities you have been given, you must rise to your responsibility -- the responsibility of empowering every American. As the years pass, your work will be judged, and you will judge yourselves, on the contributions you make to your schools and your communities. If you embrace this responsibility, if you turn your opportunities into opportunities for others, then you will not only be leaders in science and in industry -- you will be the leaders of our nation.

Withdrawal/Redaction Marker

Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	Michael Waldman to Jeff Shesol at 11:48pm. Subject: Re: MIT draft 5/27/98. (7 pages)	05/27/1998	P5

COLLECTION:

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

FOLDER TITLE:

Commencement 6/5/98 - Speech Drafts [2]

2006-0467-F

vz1273

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]

Draft 5/27/98 9:00pm

**PRESIDENT WILLIAM J. CLINTON
REMARKS AT THE MIT COMMENCEMENT CEREMONY
CAMBRIDGE, MASSACHUSETTS**

June 5, 1998

[Intro]

For four years, you have been working toward this day. You have changed and grown immeasurably in that time, but I'm sure it isn't easy to see those changes in yourself. Your parents will help you with that, as they remind you today how naive and how cute you were when you arrived here -- before you became seasoned and mature research scientists.

During those four years, our nation, too, has transformed in remarkable ways -- many of them the products of creativity and ingenuity on this very campus. A revolution in technology is underway, spreading throughout our society, upending old arrangements, propelling America forward into a truly new era -- the Information Age. This is more than a time of innovation. It is a time of fundamental transformation -- the kind that happens, at most, every hundred years.

But I am not here today to talk about technology, not about bits and bytes and all the things the Vice President tries so patiently to explain to me. I am here instead to talk about a timeless American value -- opportunity -- and what it means in an Age of Information.

Information technology can be the most powerful engine of growth and prosperity the world has ever known. You know that better than anyone. It can also be the greatest democratizing force -- connecting and empowering billions around the globe. But, if we are not careful and vigilant and forward-looking, this technology can limit opportunity to a privileged few, prying open a digital divide.

This spring, in a series of three commencement addresses, I am focusing on the challenges of the new century. Last month, at the United States Naval Academy, I spoke about the mission of our men and women in uniform: to protect our nation in the face of new threats, and to defend enduring values in times of change. Next week, at Portland State, I will discuss ways our nation's growing diversity can either strengthen and unite America, or weaken and divide it.

Today I have come to MIT, the epicenter of seismic shifts in our economy and society, not to preach to the choir about the promise of computers. Instead, I have come here to talk about the ways we must work together in this new era to fulfill our nation's oldest ideal -- equal opportunity for all. Every graduate here today, every member of the MIT community, and indeed all Americans, must embrace this responsibility, and give meaning to an old, revolutionary ideal in a new, revolutionary time.

At the dawn of the last great transformation, the Industrial Revolution, visionary Americans recognized that the best way -- the only way -- to seize the promise of change was to widen the circle of opportunity. In the late 1850s, when new inventions like the telegraph

and the locomotive first captured the imagination of Americans, a Republican Congressman named Justin Smith Morrill took on a grand cause. He proposed a system of land-grant colleges, at least one for every state, to educate the children of farmers and laborers in the wonders of agricultural and industrial science.

This was a radical idea, in the scope and depth of its democratic aims. But at its core, Morrill's plan was pragmatic: the only way to ensure the benefits of change, the only way to widen the circle of opportunity, was to offer more education to more Americans.

The Morrill Land Grant College Act became law in July 1862, and provided seed money, ^{+ (and help found [the])} to these new colleges. MIT ~~was one of them~~ ^{it} got a grant of \$3,409 and 56 cents. It was one of the wisest investments America has ever made.

Ever since then, MIT has been at the cutting edge of technological change. A recent study showed that if all the companies founded by MIT graduates and faculty formed their own country, it would have the 24th largest economy in the world. But don't go packing your bags or composing a new national anthem: Here in America, the 4,000 MIT-related companies employ three-quarters of a million workers, knowledge workers -- in high-paying, knowledge-based jobs.

leading
once again, MIT is at the cutting edge of a new era.

~~The rapid innovation that begins in laboratories like yours and high-tech start-ups like these along Route 128 have an even wider effect.~~ Information technology is fueling a new economic expansion -- not just in one sector, but in the economy as a whole. Since 1994 -- your freshman year -- information technology has accounted for more than a third of America's total real economic growth. By some estimates, it has shaved more than a point off the overall inflation rate. It may be driving gains in overall productivity. And by the time this year's incoming freshmen graduate, Internet commerce between businesses will likely exceed \$300 billion. [clever comparison TK]

When Nicholas Negroponte and Jerome Wiesner founded MIT's Media Lab back in 1980, even they could scarcely have imagined that the system they used for e-mail would ever conduct business on that scale. Nor could they have predicted the Lab would someday develop everything from wearable keyboards to electronic books to quantum computers. The incredible innovations developed here and elsewhere are making our lives easier, more varied, and more interesting. Not just our lifestyles--our lives. We're not talking about which cell phone has the most functions or which TV has the sharpest resolution. We're talking about the contours of our lives, the fabric of our communities, and the shape of our society.

Of course computers are not here - MIT has been developing them since what is (in) new is the diffusion of throughout computers - the elon. + that is having an enormous effect. This invest in comp has ↑ by 100% since 1994. many elon say it's why our elon is seeing a surge in prod.

The real test of these new technologies is not their speed or their storage capacity. And the real promise of the Information Age is not whether our lives as individuals are more carefree. It is whether our national life is more meaningful. Remember that the real triumph of the industrial revolution was not the steam engine or the assembly line -- it was the opportunity given to millions of Americans to enter our national life, to join fully in the enterprise of building a great nation. As technology propels us into the future, it can also move us closer to the revolutionary principle enshrined in our founding documents:

opportunity for all.

An America that embraces these changes will be empowered by them, transformed by them -- from the center of our cities to the quietest corners of our countryside. In rural areas even the highways don't cross, entrepreneurs can reach a worldwide market. In the classrooms of the inner city, where children page through outdated science textbooks--you know, the ones that say computers might someday be as small as station wagons--students can instantly find current materials for the cost of a phone call. Disabled Americans, displaced workers, new arrivals to our shores -- all can have better access to the American dream.

But the forward rush of progress must not blur our vision. If history has taught us anything it is that opportunity does not widen as a matter of course or as a byproduct of innovation. A century ago, the move from farm to factory challenged America's traditional notions of opportunity. It took six decades to adjust, and to harness the benefits of unbridled industry.

None of you is likely to underestimate the sweeping changes of the Information Age, and none of us should underplay the challenges they bring. We cannot point and click our way to a better future. There is no such thing as virtual opportunity. If we stand passively in the face of great change, we risk creating two Americas: one wired, the other not; an America divided between haves and have-nots, between those who conquer change and those who fear it. While many Americans are surging ahead, succeeding by leaps and bounds, others are in danger of being left behind. And, in the long run, America cannot succeed without them. Information industries are projected to spawn 100,000 new jobs each year--high-skilled, high-wage jobs -- and will have difficulty filling them all.

100,000 new jobs to be filled every year. And how many new graduates are here today -- [number]? Those must look like pretty good prospects, as you consider your move from school to high-tech firm, or ponder your own software start-up. If any parents in America can sit back and relax on graduation day, it's your parents. As the information revolution rolls ahead into the next century, you'll be at the forefront.

But if we want to fill those empty offices and workstations, the answer is not to have everybody to go to MIT. It's to ensure that those who don't go to MIT -- or a four-year college at all -- still have the tools and skills to succeed in the Information Economy. And to make this a reality, to help our nation fulfill the ideal of opportunity, we must take three vital steps.

First, we must increase our investment in basic research -- the spark that ignites the fires of innovation. Sir Isaac Newton and his apple tree aside, fundamental scientific advances are rarely made by accident. As you well know, without government-funded basic research, not a single one of the remarkable applied technologies we've discussed today would even exist. Not satellites. Not the computer. Not the Internet. Not Web browsers. Our economy would be stuck in an age of low productivity, of diminishing wages, of lost opportunity.

[Kalil R&D policy TK]

Second, to give all Americans the tools they need to succeed, we must ensure universal access to information technology. We are already making great strides toward this goal. In my State of the Union address two years ago, I challenged the nation to connect every American classroom to the Internet by the year 2000. Thanks to unprecedented cooperation at the federal, state, and local level and an outpouring of support from active citizens, we are well on track to meet this goal. Four years ago, when you arrived at MIT, barely 3 percent of America's classrooms were connected. Today, more than 30 percent are online.

And we are about to make another quantum leap forward. By the end of the year, we expect the number of connected classrooms to rise to 75 percent. But for this to happen, businesses must make good on the public commitment they made two years ago, as part of the historic telecommunications bill. The private sector's pledge to help with the cost of wiring schools, libraries, and rural health centers remains an important one. If businesses renege, as some are now threatening to do, millions of students and patients will be denied the opportunity to participate in the new economy.

Draft 5/25/98

PRESIDENT WILLIAM J. CLINTON
REMARKS AT THE MIT COMMENCEMENT CEREMONY
CAMBRIDGE, MA
June 5, 1998

A week ago, I had my 30th college reunion. I had a great time. Saw friends I hadn't seen in decades. And for some reason, I didn't even feel any pressure to make up stories about having a cool job....

In the past four years, while you have been working toward this day, our nation has transformed in unmistakable ways. Revolutionary advances in technology -- many of them the products of years of creativity and ingenuity here at MIT -- have begun proliferating throughout our society, propelling America forward into a truly new era, the Information Age.

When those of you who are graduating today come back for *your* 30th reunion, I believe the history of this era will be clear: The changes we are now experiencing will have brought the kind of fundamental transition in our economy and our society that come at most every hundred years.

[In just the past four years, the number of computers connected to the Internet has risen from 2 million to almost 30 million. The number of Web sites has exploded -- from just over 2,000 to well over 2 million. Business investment in computers has quintupled. Productivity has surged.]

As you know better than anyone, the newest information technologies can be the greatest engine of growth and prosperity the world has ever known. I believe they can also be the greatest democratizing force -- connecting and empowering billions around the globe. But as with any remarkable advance, if we are not careful, these technologies can widen inequalities in our society, prying open a digital divide.

This spring, in a series of three commencement addresses, I am focusing on three great challenges ~~we face as we prepare to enter~~ ^{of} the new century. ^{last month} Next week, at Portland State, I will discuss how America can ... But today, I have come to MIT, the epicenter of the seismic shifts in our economy and society, to challenge every graduate, every member of the MIT community, and indeed all Americans to rise to a new set of responsibilities that accompany the unprecedented opportunities of this revolutionary age. I have not come here to preach to the choir about the promise of computers. Instead, I have come here to talk about the ways we must work together in this new era to live up to our nation's oldest value -- equal opportunity for all.

At the outset of the last great transformation, the Industrial Revolution, visionary Americans recognized that the best way -- the only way -- to seize the promise of change was to widen the circle of opportunity. In the late 1850s, when new inventions like the telegraph and the locomotive were first starting to capture the imagination of Americans, a Republican Congressman named Justin Smith Morrill took on a grand cause. He proposed a system of land-

grant colleges, at least one for every state, to educate the sons and daughters of farmers and laborers in the miracles of agricultural and industrial science.

Morrill's idea was radical -- no nation on earth had ever set such an ambitiously democratic goal -- but it was pragmatic at its core: More education for more Americans was the only way to lock in the economic and social benefits of change.

The Morrill Land Grant College Act was signed into law on July 2, 1862. It was one of the wisest investments America has ever made.

MIT is a land grant - had charter from MA; Fed backing was only \$3000

\$3479 in that 1st yr. - one of greatest invest. gov't ever made

A recent study showed that if all the companies founded by MIT graduates and faculty formed their own country, it would have the 24th largest economy in the world. But don't go packing your bags or composing a new national anthem: Here in America, the 4,000 MIT-related companies employ three-quarters of a million workers, knowledge workers--in high-paying, knowledge-based jobs. That's [x] jobs for each of you.

trans. MIT founded to be in forefront of change (who later symmetry)

MIT not only one ... some equivalent - pastoralship

trans.

In recent years, America's premiere research universities made their greatest contributions to the national economy in the realm of information technology. The rapid innovation that begins in your laboratories and in the high-tech start-ups that line Route 128 are fueling a new economic expansion--not just in one sector, but in the economy as a whole. In the brief time since your sophomore year, information technology has been responsible for more than a third of America's total real economic growth. By some estimates, it has shaved more than a point off the overall inflation rate and may be driving gains in overall productivity. And by the time this year's incoming freshmen graduate, Internet commerce between businesses will likely exceed \$300 billion. [comparison TK]

trans.

When Nicholas Negroponte and Jerome Wiesner founded MIT's Media Lab back in 1980, even they could scarcely have imagined that today the Lab would be developing everything from wearable computers to electronic books to quantum computers. But ~~"computing," as Mr. Negroponte has pointed out, "is not about computers anymore. It is about living."~~ The incredible innovations developed here and elsewhere are making our lives easier, more varied, and more interesting. Not just our lifestyles--our lives. We're not talking about ~~whose~~ ^{whose} cell phone has the most functions or ~~whose~~ ^{whose} TV has the sharpest resolution. We're talking about the contours of our lives, the fabric of our communities, and the shape of our society.

Which

The real test of these new technologies is not their speed or their storage capacity. And the real promise of the Information Age is not whether new tools make our lives as individuals more carefree. It is whether they make our national life more meaningful. Remember that the real triumph of the industrial revolution was not the steam engine or the assembly line--it was the opportunity given to millions of Americans to enter our national life, to join fully in the enterprise of building a great nation. As technology propels us forward, it can also move us closer to the revolutionary principle enshrined in our founding documents: opportunity for all.

An America that embraces these changes will be empowered by them, transformed by them--from the center of our cities to the quietest corners of our countryside. In rural areas even

the highways don't cross, entrepreneurs can reach a worldwide market. In the classrooms of the inner city, where children page through outdated science textbooks--you know, the ones that say computers might someday be as small as station wagons--students can instantly find current materials for the cost of a phone call. Disabled Americans, displaced workers, new arrivals to our shores--each can have better access to the American dream.

But the forward rush of progress must not blur our vision. If history has taught us anything it is that opportunity does not widen as a matter of course, or as a byproduct of innovation. A century ago, the move from farm to factory challenged America's traditional notions of equality and opportunity. It took six decades to harness the benefits of unbridled industry.

None of you is likely to underestimate the sweeping nature of technological change. And none of us should underestimate the challenges it brings. We cannot point and click our way to a better future. There is no such thing as virtual opportunity. If we stand passively in the face of great change, we risk creating two Americas: one wired, the other not; an America divided between haves and have-nots, ~~knowers and know-nots~~. While many Americans are surging ahead, succeeding by leaps and bounds, others are in danger of being left behind. And, in the long run, America cannot succeed without them. Information industries are projected to spawn 100,000 new jobs each year--high-skilled, high-wage jobs--and will have difficulty filling them all.

100,000 new jobs to be filled every year. And how many new graduates are here today--[number]? Those must look like pretty good odds, as you ponder the move from school to high-tech firm, or perhaps your own software start-up. If any parents in America can sit back and relax on graduation day, it's your parents. As the information revolution rolls forward into the next century, you'll be at the forefront.

[trans.]

between those who create change + those who fear it.

.... That school of the future is actually here today. In fact, it's the TK school, here in Massachusetts, in TK town. The school is not wealthy, but the reason it is rich in results is because it has received a lot of outside help...

What is the role of the government in helping America live up to the incandescent ideal of equal opportunity in the Information Age? I believe there are three vital steps we must take.

stranger

First, we must increase our investment in basic research -- the spark that ignites the fires of innovation. Sir Isaac Newton and his apple tree aside -- fundamental scientific advances are rarely made by accident. As you well know, without government-funded basic research, not a single one of the remarkable applied technologies we have discussed today would even exist. Not the computer. Not the Internet. Not Web browsers. Not satellites. Our economy would be stuck in another age. An age of low productivity. An age of diminishing wages. An age not of promise, but of opportunity lost.

[Kalil R&D policy TK]

values long... by...

Second, we must ensure universal access to information technology. As I have often said, the goal of government must be to give our citizens the tools they need to succeed in this new era. Well, modern computers, connected by modern networks, are indispensable tools in this modern day.

[In schools, the value of networked computers is clear. Students in classes that use computers consistently outperform their peers on standardized tests of basic skills. Numerous studies show that children in technology-rich learning environments showed more enthusiasm, had higher attendance rates, developed better writing skills and displayed a greater capacity to communicate effectively about complex problems.]

In my State of the Union address two years ago, I challenged the nation to connect every classroom in America to the Internet by the year 2000. Thanks to unprecedented cooperation at the federal, state, and local level and an outpouring of support from active citizens, we are on track to meet this goal. Four years ago, when you arrived at MIT, barely 3% of our classrooms were connected. Today, we have more than 30%.

And we are about to make another quantum leap forward. By the end of the year, we expect the number of connected classrooms to rise to 75%. In the historic telecommunications bill I signed two years ago, industry made a commitment to the public at large. In exchange for offering the industry a freer hand to compete in new markets, the industry pledged to help subsidize wiring and access charges for schools, libraries, and rural health centers. Unfortunately, industry is now renegeing on the deal -- leaving millions of students and medical patients in the lurch.

But for this to happen,

10 Utopian vision (2 paragraphs)

Paragraph 1

- We're all becoming familiar w/ the incredible innovations of Media Lab; changing way we live and think and communicate [list a couple]
- Myriad of ways our individual lives will be made easier, more varied, more interesting. But will our national life be made more meaningful? Will it get us closer to the ideals expressed at the founding of this country?
- It will. As the Media Lab's NN points out, "Computing is not about computers anymore. It is about living." Living, not lifestyles--not who has the sleekest cellphone, whose car has the best gadgets--it's about the shape of our lives, the fabric of our communities, the shape of our society.

Paragraph 2

- Here, indeed, is the greatest promise of this tech: the prospect of fulfilling the Founders' vision of opportunity for all.
- Drucker [don't cite by name] argument: moments of disruption=greatest opportunity to close existing divides
- Look to history: ind rev was about opportunity for farmers & servants (Drucker, 6); and new jobs offer even greater opportunities (better paid, take less toll on body and spirit: Drucker, 9)
- P's utopian vision of closing existing divides: Inner cities--outdated 20 yr old science books--will have access to learning materials updated weekly, instantly, for free. People who haven't had opportunity b/c of disability, or geography (places in the world completely cut off) will now have same broadband access as MIT; entrepreneurs (Drucker, 13)

But...

11 The Digital Divide

- Take on utopians: this won't happen as matter of course; we cannot simply point and click our way to social transformation. It is a challenge. Look at six decades of cleanup.
- Hence the labor gap in hi-tech. [stat]

Draft 5/25/98

PRESIDENT WILLIAM J. CLINTON
REMARKS AT THE MIT COMMENCEMENT CEREMONY
CAMBRIDGE, MA
June 5, 1998

10 A week ago, I had my 30th college reunion. I had a great time. Saw friends I hadn't seen in decades. And for some reason, I didn't even feel any pressure to make up stories about having a cool job.

(Counselor's friend: In exactly 5 yrs., you'll have your 1st reunion. And let me tell you from exp. There's a lot of pressure to say you've got a cool job.)

One thing that reunion brought home for me was just how much I grew and changed during those four years at Georgetown. I was a wide-eyed Southern Baptist from Arkansas -- the first person in my family to have the opportunity to attend college. Four years later, when I put on that funny cap and gown, I suppose I was still a wide-eyed Southern Baptist from Arkansas -- but my whole outlook on life had changed.

Remember the day you graduated from high school? All of you were sitting in uncomfortable chairs -- just like you are today. All of you were praying that the graduation speaker would keep it short -- just like you are today. But think about how different you are at this moment, four years and countless TKs later. I'm not just talking about the insights you've gained in the lecture hall and in the lab. I'm talking all-nighters at TK. Planning great hacks. Finding soul mates. Discovering what makes you tick. These past four years, each of you has changed in remarkable ways. Your professors and parents can attest to these quantum changes. Today is your day to be proud of them too.

Since you 1st set foot on campus in the fall of '94,

In the past four years, our nation has also transformed in unmistakeable ways.

Revolutionary advances in technology -- many of them developed right here at MIT -- have [ignited in] a new era, the Information Age, that is already bringing the kind of fundamental changes in our economy and our society that come at most every hundred years. Four years ago, for example, there were about TK web sites ... Today
overdone ex.

As you know better than anyone, these increasingly powerful, increasingly widespread information technologies can be the greatest engine of growth and prosperity the world has ever known. I believe they can also be the greatest democratizing force -- connecting and empowering billions around the globe. But, of course, these technologies can also divide.

and pose new challenges (?)

This spring, in a series of three commencement addresses, I am focusing on three great challenges we face as we prepare to enter the new century. *last month I met USNA* Next week, at Portland State, I will discuss how America can ... But today, I have come to MIT, the epicenter of the seismic shifts in our economy and society, to challenge every graduate, every member of the MIT community, and indeed all Americans to rise to a new set of responsibilities that accompany the unprecedented opportunities of this revolutionary age. I have ^{not} come here to preach to the choir about the promise of computers. Instead, I have come here to talk about the ways we must work together in this new era to live up to our nation's oldest value -- equal opportunity for all.

again, something to fight

At the outset of the last great transformation, the Industrial Revolution, visionary Americans recognized that the best way -- the only way -- to seize the promise of change was to widen the circle of opportunity. In fact, that was precisely how the Massachusetts Institute of Technology got its start. Although many people associate the Industrial Revolution with the period following the Civil War, the awesome potential of technology first became clear to most Americans in the 1850s.

As an investment in America's future, the land grant colleges have paid remarkable dividends. And we're learning just how remarkable: A recent study showed that if all the companies founded by MIT graduates and faculty formed their own country, it would have the 24th largest economy in the world. But don't go packing your bags or composing a new national anthem: Here in America, the 4,000 MIT-related companies employ three-quarters of a million workers, knowledge workers--in high-paying, knowledge-based jobs. That's [x] jobs for each of you.

In recent years, America's premiere research universities made their greatest contributions to the national economy in the realm of information technology. The rapid innovation that begins in your laboratories and in the high-tech start-ups that line Route 128 are fueling a new economic expansion--not just in one sector, but in the economy as a whole. In the brief time since your sophomore year, information technology has been responsible for more than a third of America's total real economic growth. By some estimates, it has shaved more than a point off the overall inflation rate and may be driving gains in overall productivity. And by the time this year's incoming freshmen graduate, Internet commerce between businesses will likely exceed \$300 billion. [comparison TK]

For the past four years, in your laboratories and libraries, you and your professors have been doing all you can to make sure this expansion continues into the 21st century. And hard work has taught you: Sir Isaac Newton and his apple tree aside, scientific advances are rarely made by accident. It's no coincidence that 90 percent of MIT-related companies have been founded in the past fifty years--during the great postwar partnership between the federal government and America's research universities. From wireless communications to the World Wide Web, it's been a team effort from the start.

[Kalil R&D policy TK]

By renewing and extending the research partnership of the past and present, we will ensure the future growth of information technologies--and the continued growth of American prosperity. This will be a profound national achievement. Still, we must not be lulled by the hum of a vibrant economy. As we reshape our ways of thinking and communicating and doing business, we must--at every step--reaffirm our core beliefs. Information technology is the means to almost unimaginable ends. But it should also serve traditional ends--particularly, the value our nation has always placed on opportunity for all. Information technology must widen opportunity for every American in the 21st century, not just those who are blessed by an MIT degree.

6 As an investment in America's future, the land grant colleges have paid remarkable dividends. And we're learning just how remarkable: A recent study showed that if all the companies founded by MIT graduates and faculty formed their own country, it would have the 24th largest economy in the world. But don't go packing your bags or composing a new national anthem: Here in America, the 4,000 MIT-related companies employ three-quarters of a million workers, knowledge workers--in high-paying, knowledge-based jobs. That's [x] jobs for each of you.

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[Kalil R&D policy TK]

*Emphasis on R — priv sector will handle
sentence on basic science*

*That helps continue expansion.
But...*

Draft 5/25/98

PRESIDENT WILLIAM J. CLINTON
REMARKS AT THE MIT COMMENCEMENT CEREMONY
CAMBRIDGE, MA
June 5, 1998

I don't want to play favorites, but I want to say a special word of congratulations to those of are the first people in your family to attend college. Exactly 30 years ago, I was in your shoes, and I'll never forget the look in my momma's eyes. You and your families should be especially proud.

It is a great honor for me to be here today at MIT. I have long been an admirer of this outstanding university and its grand traditions. Example TK. Example TK. And, of course, the one that best exemplifies MIT's world-renowned spirit of innovation and the bold, even audacious, blending of art and science -- the tradition of the hack. Who among us can possibly forget the police cruiser perched atop the Great Dome... the MIT balloon emerging from the field at the Harvard-Yale football game... buzzword bingo during the Vice President's commencement address two years ago.

Imitation may be the sincerest form of flattery elsewhere, but of course at MIT, the highest compliment is a hack. That's why I have decided to forge a new tradition. I have a hack for you: [banner; perhaps Georgetown '68"... I had help from... "MIT 'TK'"]

In the immortal words of Will Hunting, how 'bout them apples?

As my daughter has made clear to me this year, it is amazing how much students grow and change in their college years. Just think back to the day you graduated from high school. All of you were sitting in uncomfortable chairs -- just like the ones here today. All of you were praying that the graduation speaker would keep the remarks short -- just like you are today.

But take a moment to think about how life-changing and mind-expanding these four years have been. I'm not just talking about the insights you've gained in the lecture hall and the discoveries you've made in the lab. I'm talking about the study breaks at Toscanini's. The all-nighters at TK. Rollerblading on Mem Drive. Bombing your first exam. Falling in and out of love. Debating philosophy or politics on the No. 1 bus. Finding soul mates. Defining your own values. Learning what makes you tick. Four years and countless TKs later, each of you has transformed in remarkable ways. Your professors and parents can attest to these quantum changes. Today is your day to be proud of them too.

In the past four years, our nation has also changed in quantum ways. As most of you prepare to leave this campus, and America prepares to enter a new millennium, we are in the midst of the greatest period of change in our economy and our society in more than a century. We are present at the dawn of a new era -- the Information Age ... a set of transformations born of innovation, creativity, and dramatic technological advance ... a set of transformations that can usher in the greatest prosperity the world has ever known.

TK

comedy

revise

(?)

as for some of you, getting the curve on top or the bottom.

Today, at MIT, the epicenter of many of these seismic shifts, I want to talk about the new responsibilities that accompany the unprecedented opportunities of this revolutionary age. America was founded on the principle of equal opportunity for all. This new Information Age can help us move closer to that incandescent ideal; the Internet alone is the fastest growing social and economic community in history, a phenomenon with unimagined revolutionary potential to empower billions around the world. But the shift to new technologies, which will of course upend old arrangements and demand new skills, could also threaten to widen the inequalities in our society.

Here at MIT, we know that the Information Age presents many of you with job prospects unimaginable just a few years ago. We also know that unschooled, intuitive geniuses like Will Hunting can make their mark in this new world. But what about Will Hunting's friends -- the sons and daughters of Southie who didn't go beyond high school and now move from one (dead-end job) to the other? What about the children in Roxbury and Mattapan who have never guided a mouse, never exchanged an idea over the Internet, never felt the power of TK? Today, I hope to make it clear that our economy and society cannot afford to leave them behind.

At the outset of the last great transformation, the Industrial Revolution, visionary Americans recognized that the best way -- the only way -- to seize the promise of change was to widen the circle of opportunity. That was precisely how MIT got its start. During the 1850s, the marvel of science began to take hold. In the words of historian Allan Nevins, "every fresh invention, from sewing machines to telegraphs, every new application of power, from locomotives to liners, every industrial innovation, from oil wells to Bessemer steel, opened stirring vistas. Anything seemed possible." The problem was, there was no way the promise of the age could be sustained just by the few who had the privilege to find a place at Harvard or Yale. The answer -- shockingly controversial at the time -- was to create a system of land grant colleges, at least one in every state, to educate the sons and daughters of farmers and laborers in the methods of scientific discovery....

useful

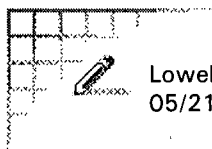
say it himself

Draft 05/21/98 6:30pm

**PRESIDENT WILLIAM J. CLINTON
REMARKS AT THE MIT COMMENCEMENT CEREMONY
CAMBRIDGE, MASSACHUSETTS
June 5, 1998**

...But if MIT is admired for one thing, above all else, it is this: hacks. Way back in 1876, an MIT prankster named John Freeman sprinkled iodide of nitrogen, a mild explosive, on the floor before a big assembly. And ever since then, the world has been witness to your engineering prowess, your innovative hackery: the live, brown-and-white cow, hoisted to the top of the five-story [name of dormitory]; the replica of a campus police cruiser, perched atop the Great Dome; and, this year, your class turned the lights of the Green Building on and off in the shape of an Oscar statue, to celebrate the success of "Good Will Hunting."

I just went to my 30-year reunion at Georgetown, and some of us got to talking about the pranks we pulled as students...



Lowell A. Weiss
05/21/98 04:11:55 PM

Record Type: Record

To: Jeffrey A. Shesol/WHO/EOP

cc:

Subject: jokes

Draft 5/21/98

**PRESIDENT WILLIAM J. CLINTON
REMARKS AT THE MIT COMMENCEMENT CEREMONY
CAMBRIDGE, MA
June 5, 1998**

It is a great honor for me to be here today to address...

Contributions to economy, society.... America...finest...

Brilliant spirit of innovation, spark of creativity, proud tradition of

If MIT is admired for one thing, and one thing only, it is this... hacks. Over the years, I've noted with admiration...police cruiser...

Where I went to school, we too had a few pranks. But we didn't have quite so many brilliant engineers to rig up...; our pranks tended to reflect the fact that we had lots of future politicians...

One year, we [means-tested] the whole faculty. (It polled a lot funnier than it was.)

Hacks. Not limited to graduation. I was going to have a hack of my own....

VP figuring out what the hack was... Dan found out...here's what they're going to do...techy words ...they're going to yell...yell...variation on a drinking game...supercomputer....paid the price....

Hack...make fun of how long President's speeches are.

I know about the strong tradition of this school and its tradition of excellence...reels off three greatest hacks.

Our hacks didn't involve engineering genius...

A lot of aspiring politicians at Georgetown... we designed a policy good thing we polled it first. It polled funny...

Designed a policy...

Targetted means-tested incentives

*I just went to my 30th
reunion at G'town
we were talking
about some of the pranks
course we were a
bunch of policy
geeks...*

Modules:

- * Throat clearing/ jokes
 - some mention of other graduation speaker? (TIME Man of the Year)
 - Some mention of MIT commencement pranks
- * Land Grant paragraph
 - establish historical context
 - imperative behind Land Grant College Act (solid link between act and economic trans?)
 - Impact on economy, society
 - MIT as land grant college -- stats on contribution of MIT grads
- * Now at the cusp of another great econ, social transformation
 - statement of purpose
 - time to make fundamental choice
 - We're not going to wait 6 decades -- we won't be caught unaware
- * Effects on economy, society already
 - micro: MIT
 - macro: great thing for economy, society as a whole (drucker, inflation productivity, etc.)
- * Greatest democratizing force -- positive vision for future
 - fulfilling deepest values
 - examples -- heavy emphasis on bridging existing divides and new econ opportunities
 - leap-frogging outdated textbooks,
 - satellites in third world
 - disabilities -- valedictorian (Notre Dame)
- * Potential for digital divide
 - threat to deepest values
 - numbers from NAACP
- * Refutation of techno utopians

not like invention of TV

1. Throat-clearing
2. "Four years" construction: you've changed, the nation's changed
3. Changes over the past four years: revolutionary change *can* usher in greatest prosperity world has ever known... greatest democratizing force... a great engine for growth... or it could not.

I came here not to talk about computers, but about values.

4. I've come here to MIT, the epicenter of many of these seismic shifts, to talk about the ways we can make sure we fulfill the promise of this new tech.

At Naval Academy, Portland State... Today...

5. History: we've been here before. MIT & land grants as response to promise of last great revolution. They saw that no transformation can be sustained by elites. The best way--the only way--of maximizing this revolution is to spread opportunity. And it worked...

6. The investment paid off: MIT's (and other land grants') impact on economy and society.

7. *infotech's impact on econ → whole (let's look particularly at IT - their response - fueling it)*
7. *hist. ref.* But.... six decades of clean-up (Progressives, New Deal)

8. ~~This time we can do better. By...~~
~~a. Continuing expansion: Investment (R&D)~~
 b. And leaving no one behind: Being proactive

History of R&D invest → payoff (great gains)

9. If we do these things, then... Utopian vision of minimizing divides
 Drucker: greatest opportunity to narrow divides

10. Take on utopians: won't happen as matter of course
 Digital divides exist now (see 11)

→ opp is in jeopardy: need for IT workers, # of computer jobs

11. Narrow focus: Tale of two schools
 a. Successful school...
 b. Unsuccessful school...
 and both are just down the street.

impact of infotech on econ?

*Why are schools so important?
 Need for IT workers - shortage*

12. What, then, is to be done? Access.
 a. victory lap
 b. e-rate

13. Tech literacy

14. Teacher training

15. Challenging students, MIT, private sector

16. Conclusion

values