

Here in America you'll find a nation of compassion. Americans believe that the measure of a free society is how we treat the weakest and most vulnerable among us. So each day citizens across America answer the universal call to feed the hungry and comfort the sick and care for the infirm. Each day across the world the United States is working to eradicate disease, alleviate poverty, promote peace and bring the light of hope to places still mired in the darkness of tyranny and despair.

Here in America you'll find a nation that welcomes the role of faith in the public square. When our Founders declared our nation's independence, they rested their case on an appeal to the "laws of nature, and of nature's God." We believe in religious liberty. We also believe that a love for freedom and a common moral law are written into every human heart, and that these constitute the firm foundation on which any successful free society must be built.

Here in America, you'll find a nation that is fully modern, yet guided by ancient and eternal truths. The United States is the most innovative, creative and dynamic country on earth—it is also among the most religious. In our nation, faith and reason coexist in harmony. This is one of our country's greatest strengths, and one of the reasons that our land remains a beacon of hope and opportunity for millions across the world.

Most of all, Holy Father, you will find in America people whose hearts are open to your message of hope. And America and the world need this message. In a world where some invoke the name of God to justify acts of terror and murder and hate, we need your message that "God is love." And embracing this love is the surest way to save men from "falling prey to the teaching of fanaticism and terrorism."

In a world where some treat life as something to be debased and discarded, we need your message that all human life is sacred, and that "each of us is willed, each of us is loved"—and your message that "each of us is willed, each of us is loved, and each of us is necessary."

In a world where some no longer believe that we can distinguish between simple right and wrong, we need your message to reject this "dictatorship of relativism," and embrace a culture of justice and truth.

In a world where some see freedom as simply the right to do as they wish, we need your message that true liberty requires us to live our freedom not just for ourselves, but "in a spirit of mutual support."

Holy Father, thank you for making this journey to America. Our nation welcomes you. We appreciate the example you set for the world, and we ask that you always keep us in your prayers.

Pope Benedict XVI: Mr. President, thank you for your gracious words of welcome on behalf of the people of the United States of America. I deeply appreciate your invitation to visit this great country. My visit coincides with an important moment in the life of the Catholic community in America: the celebration of the 200th anniversary of elevation of the country's first Diocese—Baltimore—to a metropolitan Archdiocese and the establishment of the Sees of New York, Boston, Philadelphia and Louisville.

Yet I am happy to be here as a guest of all Americans. I come as a friend, a preacher of the Gospel, and one with great respect for this vast pluralistic society. America's Catholics have made, and continue to make, an excellent contribution to the life of their country. As I begin my visit, I trust that my presence will be a source of renewal and hope for the Church in the United States, and strengthen the resolve of Catholics to contribute ever more responsibly to the life of

this nation, of which they are proud to be citizens.

From the dawn of the Republic, America's quest for freedom has been guided by the conviction that the principles governing political and social life are intimately linked to a moral order based on the dominion of God the Creator. The framers of this nation's founding documents drew upon this conviction when they proclaimed the self-evident truth that all men are created equal and endowed with inalienable rights grounded in the laws of nature and of nature's God.

The course of American history demonstrates the difficulties, the struggles, and the great intellectual and moral resolve which were demanded to shape a society which faithfully embodied these noble principles. In that process, which forged the soul of the nation, religious beliefs were a constant inspiration and driving force, as for example in the struggle against slavery and in the civil rights movement. In our time, too, particularly in moments of crisis, Americans continue to find their strength in a commitment to this patrimony of shared ideas and aspirations.

In the next few days, I look forward to meeting not only with America's Catholic community, but with other Christian communities and representatives of the many religious traditions present in this country. Historically, not only Catholics, but all believers have found here the freedom to worship God in accordance with the dictates of their conscience, while at the same time being accepted as part of a commonwealth in which each individual group can make its voice heard.

As the nation faces the increasingly complex political and ethical issues of our time, I am confident that the American people will find in their religious beliefs a precious source of insight and an inspiration to pursue reasoned, responsible and respectful dialogue in the effort to build a more human and free society.

Freedom is not only a gift, but also a summons to personal responsibility. Americans know this from experience—almost every town in this country has its monuments honoring those who sacrificed their lives in defense of freedom, both at home and abroad. The preservation of freedom calls for the cultivation of virtue, self-discipline, sacrifice for the common good, and a sense of responsibility towards the less fortunate. It also demands the courage to engage in civic life and to bring one's deepest beliefs and values to reasoned public debate.

In a word, freedom is ever new. It is a challenge held out to each generation, and it must constantly be won over for the cause of good. Few have understood this as clearly as the late Pope John Paul II. In reflecting on the spiritual victory of freedom over totalitarianism in his native Poland and in Eastern Europe, he reminded us that history shows time and again that "in a world without truth, freedom loses its foundation," and a democracy without values can lose its very soul. Those prophetic words in some sense echo the conviction of President Washington, expressed in his Farewell Address, that religion and morality represent "indispensable supports" of political prosperity.

The Church, for her part, wishes to contribute to building a world ever more worthy of the human person, created in the image and likeness of God. She is convinced that faith sheds new light on all things, and that the Gospel reveals the noble vocation and sublime destiny of every man and woman. Faith also gives us the strength to respond to our high calling and to hope that inspires us to work for an ever more just and fraternal society. Democracy can only flourish, as your founding fathers realized, when po-

litical leaders and those whom they represent are guided by truth and bring the wisdom born of firm moral principle to decisions affecting the life and future of the nation.

For well over a century, the United States of America has played an important role in the international community. On Friday, God willing, I will have the honor of addressing the United Nations organization, where I hope to encourage the efforts underway to make that institution an ever more effective voice for the legitimate aspirations of all the world's peoples.

On this, the 60th anniversary of the Universal Declaration of Human Rights, the need for global solidarity is as urgent as ever, if all people are to live in a way worthy of their dignity—as brothers and sisters dwelling in the same house and around that table which God's bounty has set for all his children. America has traditionally shown herself generous in meeting immediate human needs, fostering development and offering relief to the victims of natural catastrophes. I am confident that this concern for the greater human family will continue to find expression in support for the patient efforts of international diplomacy to resolve conflicts and promote progress. In this way, coming generations will be able to live in a world where truth, freedom and justice can flourish—a world where the God-given dignity and the rights of every man, woman and child are cherished, protected and effectively advanced.

Mr. President, dear friends, as I begin my visit to the United States, I express once more my gratitude for your invitation, my joy to be in your midst, and my fervent prayers that Almighty God will confirm this nation and its people in the ways of justice, prosperity and peace. God bless America.

#### ENGINEERED INTELLIGENCE

The SPEAKER pro tempore. The Chair recognizes the gentleman from California (Mr. SHERMAN) for 5 minutes.

Mr. SHERMAN. Thank you.

Mr. Speaker, I come to the floor to focus on an issue that I have been discussing with my colleagues for almost a decade and that I have brought to this floor several times since the year 2000. That is an issue I call "engineered intelligence." By that, I mean the efforts of computer engineers to develop computers with intelligence that far exceeds that of the normal human being and, likewise, the efforts of biological engineers to create either intelligence enhanced forms of human beings, or new life forms that have intelligence far beyond that of the average human.

Mr. Speaker, I believe that science will have a greater impact on the coming century than it has had in the last several centuries, knowing full well of the enormous impact that science has had in the last 100 and 200 years.

As one futurist points out, if someone describes the future 40 years from now and paints a picture that looks like a science fiction movie, that picture may be wrong, but if someone is discussing the future 40 years from now and paints a picture that does not look like a science fiction movie, then you know they are wrong. We will be living in a science fiction movie. We just don't know which one.

I believe that the issue of engineered intelligence is one that will have a greater impact on humankind than even the development of nuclear weapons. Just a few years before nuclear weapons were first exploded, Albert Einstein wrote to Roosevelt, and explained that it was possible to create such a nuclear bomb. In fact, just a few years went by before it was a reality.

Now we have not a few years, but a few decades, to wrestle with the enormous ethical, theological and sociological impacts of the technologies that are out there—just 10, 20, 30 years away. My fear is that we will over the next 10 years do what we have done over the last 10 years: Basically, waste the time that we so urgently need to deal with issues that we have just begun, that we really have not begun, to think through.

Now, as we develop more intelligent computers, we will find them useful tools in creating even more intelligent computers, a positive feedback loop. I don't know whether we will create the maniacal Hal from 2001: A Space Odyssey or the earnest Data from Star Trek. My guess is that we will create them both. There are those who say don't worry because even the most intelligent or malevolent computer is in a box, and cannot affect the outside world. But I believe there are those of the human species who would give hands to the devil, in return for a good stock tip.

I do draw solace from the fact that because a computer is intelligent or even self-aware, that this does not mean that it is ambitious. That is, will it try to affect the outside world? Will it have a survival instinct?

My washing machine does not seem to care whether I turn it off or not. In contrast, my pet mouse does seem to care. We should be working on elements to implant in computers to prevent self-awareness, survival instinct and ambition. But I know no politician is supposed to say that, because it sounds wacky; it sounds like science fiction. But if we are not talking about things that sound like science fiction, then we are not talking about the real issues that will confront us in the generation to come.

We also should focus not only on computer engineering but on the engineering of DNA. Biological engineering starts with an inherently ambitious raw material. Virtually all life forms seem to seek to survive, seem to try to affect their environment to achieve that purpose. Most of them seem to care whether their progeny survive. Now, bioengineers could create a 1,000-pound mammal with a 100-pound brain that will beat your kids on the LSAT.

These are issues that deserve the attention of all of us in the public sphere but particularly those who are our best philosophers, theologians and sociologists.

I thank the Chair for giving me the time to, once again, bring these issues before the House, and I look forward to

working with my colleagues to see that these issues are confronted long before science confronts us with new reality.

I believe that the impact of science on this century will be far greater than the enormous impact science had on the last century. As futurist Christine Peterson notes: If someone is describing the future 30 years from now and they paint a picture that seems like it is from a science fiction movie, then they might be wrong. But, if someone is describing the future a generation from now and they paint a picture that doesn't look like a science fiction movie, then you know they are wrong.

We are going to live in a science fiction movie, we just don't know which one.

There is one issue that I think is more explosive than even the spread of nuclear weapons: engineered intelligence. I have spent nine years focused on this issue.<sup>1</sup> By "engineered intelligence" I mean the efforts of computer engineers and bio-engineers who may create intelligence beyond that of a human being. In testimony at the House Science Committee,<sup>2</sup> the consensus of experts testifying was that in roughly 25 years we would have a computer that passed the Turing Test,<sup>3</sup> and more importantly exceeded human intelligence.

As we develop more intelligent computers, we will find them useful tools in creating even more intelligent computers, a positive feedback loop. I don't know whether we will be creating the maniacal Hal from 2001, or the earnest Data from Star Trek—or perhaps both.

There are those who say don't worry, even if a computer is intelligent and malevolent—it is in a box and it cannot affect the world. But I believe that there are those of our species who would give hands to the devil, in return for a good stock tip.

I do draw solace from the fact that just because a computer is intelligent, or even self-aware, this does not mean that it is ambitious. By ambitious, I mean possessing a survival instinct together with a desire to affect the environment so as to ensure survival, and usually a desire to propagate or expand.

My washing machine does not seem to care whether I turn it off or not. My pet mouse does seem to care. So even a computer possessing great intelligence may simply have no ambition, survival instinct, or interest in affecting the world.

DARPA<sup>4</sup> is the government agency on the cutting edge of supercomputer research. I have urged DARPA to develop computer systems designed to maximize the computer's utility, while avoiding self-awareness, or at least ambition.

I have spoken about computer engineering. But there is a whole different area of engineering: bio-engineering. Roughly 30 or 40 years from now bio-engineers should be able to start with human DNA and create a 2,000 pound mammal with a 300 pound brain designed to beat your grandkids on the LSAT. No less troubling, they might start with canine DNA and create a mammal with near-human intelligence, and no civil rights.

DNA is inherently ambitious. Those microbes which didn't seek to survive or replicate, didn't. Even birds seem to care whether they or their progeny survive, and they seek to affect their environment to achieve that survival.

In any case, you have the bio-engineers and the computer engineers both working toward new levels of intelligence. I believe in our

lifetime we will see new species possessing intelligence which surpasses our own.

The last time a new higher level of intelligence arose on this planet was roughly 50,000 years ago. It was our own ancestors, who then said hello to the previously most intelligent species, Neanderthals. It did not work out so well for the Neanderthals.

I used to view this as a contest between the bio-engineers and the computer engineers (or if you use the cool new lingo, wet nanotechnology and dry nanotechnology), in an effort to develop a new species of superior intelligence. I felt that the last decision that humans would make is whether our successors are carbon-based or silicon-based:<sup>5</sup> the product of bio-engineering or of computer engineering.

Now I believe we are most likely to see combinations that will involve nature, computer engineering, and bio-engineering: humans with pharmaceutical intelligence boosters; DNA enhancements; computer-chip implants; or all three. First, this will be used to cure disease, then to enhance human capacity. The partially-human will precede the trans-human.

Now how should we react to all of this? It is important that we benefit from science even as we consider its more troubling implications. I chair the House Subcommittee on Non-proliferation which deals with the only other technologies that pose an existential threat to humankind, namely the proliferation of nuclear and biological weapons.

The history of nuclear technology is instructive. On August 2, 1939, Einstein sent Roosevelt a letter saying a nuclear weapon was possible; six years later, nuclear technology literally exploded onto the world scene. Only after society saw the negative effects of nuclear technology, did we see the prospects for nuclear power and nuclear medicine.

The future of engineered intelligence will be different. The undeniable benefits of computer and DNA research will arrive long before the problematic possibilities. Their introduction will be gradual, not explosive. And fortunately, we will have far more than six years to consider the implications—unless we choose to squander the next few decades. My fear is that our philosophers, ethicists and society at large, will ignore the issues that will inevitably present themselves until . . . they actually present themselves. And these issues require more than a few years of thought.<sup>6</sup>

I have been urged not to make this issue the centerpiece of my reelection campaign. One journalist has told me that he can guarantee that computers will not be self-aware or overly intelligent: "All we have to do is get them elected to Congress."

I am confident that if we plan ahead we can obtain the utility of supercomputers, and the medical treatments available from bio-engineering, without creating new levels of intelligence. We can then pause and decide whether we in fact wish to create a new intelligent species or two.

Finally, I would quote Oliver Wendell Holmes in 1913 when he said, "I think it not improbable that man, like the grub that prepares a chamber for the winged thing it never has seen but is to be—that man may have cosmic destinies that he does not understand."<sup>7</sup>

Likewise, it is possible that within the next 30 or 40 years, our children—or should I say "our successors"—will have less resemblance

to us than a butterfly has to a caterpillar. I don't know whether to cry or rejoice, but I do know that our best minds in philosophy, science, ethics and even theology ought to be focused on this issue.

## ENDNOTES

1. I gave my first speech on the House floor regarding engineered intelligence on May 17, 2000. For speech go to <http://thomas.loc.gov/home/r106query.html> on page H 3306.

2. On April 9, 2003, the U.S. House of Representatives, Committee on Science, held a hearing titled *The Societal Implications of Nanotechnology*. The transcript is available at [http://commdocs.house.gov/committees/science/hy86340.000/hy86340\\_0f.htm](http://commdocs.house.gov/committees/science/hy86340.000/hy86340_0f.htm)

3. A test to determine whether computers are able to demonstrate intelligence matching a human's. In particular, a human sends text-only messages to communicate with both a computer and another human located in a different room. If the human sending the messages cannot determine if the response messages are composed by the computer or by the human, then the computer has passed the Turing Test. It should also be noted that one route to developing a computer with human intelligence is by reverse engineering the human brain perhaps using nanobots.

4. The Defense Advanced Research Projects Agency.

5. While I realize that supercomputers may not use chips with silicon substrate, I still prefer to call computer chips "silicon".

6. This issue is discussed in "Brave New World War" by Jamie Metzl. Published in Issue 8, Spring 2008, *Democracy: A Journal of Ideas*.

7. Oliver Wendell Holmes. "Law and the Court," speech at the Harvard Law School Association of New York, 15 February 1913.

## RECESS

The SPEAKER pro tempore. Pursuant to clause 12(a) of rule I, the Chair declares the House in recess until 2 p.m. today.

Accordingly (at 12 o'clock and 42 minutes p.m.), the House stood in recess until 2 p.m.

□ 1400

## AFTER RECESS

The recess having expired, the House was called to order at 2 p.m.

## PRAYER

The Chaplain, the Reverend Daniel P. Coughlin, offered the following prayer:

Eternal light, Who brightens our day, here in America You find a nation of compassion. We believe that You will measure us as a free society on how we treat the weakest and most vulnerable among us. Each day citizens across America answer the universal call to feed the hungry, comfort the sick, and care for the infirm.

May all citizens in this vast pluralistic society strengthen their resolve to contribute ever more responsibly to the life of this Nation, prove themselves proud of its goodness and generosity, and so reflect Your glory now and forever. Amen.

## THE JOURNAL

The SPEAKER. The Chair has examined the Journal of the last day's pro-

ceedings and announces to the House her approval thereof.

Pursuant to clause 1, rule I, the Journal stands approved.

## PLEDGE OF ALLEGIANCE

The SPEAKER. Will the gentleman from Illinois (Mr. JACKSON) come forward and lead the House in the Pledge of Allegiance.

Mr. JACKSON of Illinois led the Pledge of Allegiance as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

## CELEBRATING 60TH ANNIVERSARY OF ISRAEL

(Mr. CARNAHAN asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. CARNAHAN. Madam Speaker, today I rise to join in those sponsoring H. Con. Res. 322, celebrating the 60th anniversary of Israel's independence.

On May 14, 1948, the people of Israel proclaimed the establishment of the sovereign and independent State of Israel; and just minutes later in the White House, President Harry Truman signed the order so the U.S. would also recognize this new Jewish State of Israel.

Since then, the U.S. has had a close and special relationship with the State of Israel, shared democratic values and common strategic interests with the people of Israel and the United States.

The people of Israel have fought costs of war, have fought terrorism, and diplomatic and economic boycotts, and still they remain committed to peace and security in their country and the region.

I have had the privilege to visit the country twice and witness the strength and resilience of the people of Israel. They are committed to freedom of speech and freedom of religion. In this thriving democracy, we need to continue that support and the commitment to the peace process, and I congratulate Israel on the 60th anniversary of their independence.

## FISA

(Mr. PITTS asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. PITTS. Today marks the 66th day since this House allowed the Protect America Act that affects foreign intelligence surveillance to expire. For over 2 months now, we have needlessly hampered our intelligence agencies' ability to conduct surveillance on foreign terrorists because some in this Chamber would rather allow the trial lawyers to have an opportunity to sue telecommunications companies that assisted the government following the September 11 terrorist attack in some

50 frivolous lawsuits in the San Francisco courts.

Sixty-six days have passed while the House considers bills such as the Beach Protection Act, National Landscape Conservation System Act, Arts Require Timely Service Act, and the National Integrated Coastal and Ocean Observation Act. This body is failing in its responsibility to protect the American people by continuing to delay passage of a foreign intelligence surveillance bill that will provide our intelligence community with the tools they need to listen in on international phone calls from terrorists plotting to attack the United States.

No matter what my friends on the other side of the aisle say, this is an urgent matter.

## WE NEED LEADERSHIP

(Mr. WILSON of South Carolina asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. WILSON of South Carolina. Mr. Speaker, the Democrat majority in this House has said they have a plan to lower gas prices and help make America more energy independent. Since January 2007, we have seen no plan but we have seen the price of gas go up over \$1 per gallon.

Our outdated domestic refinery capacity, our dependence on foreign oil, and a growing global demand for oil are responsible for the increase in oil prices. So we need to target those issues. We need to build more refineries in the United States, promote all alternative energy sources, and tap unexplored oil and natural gas reserves, including ANWR. This majority wants to target the American taxpayer and raise taxes on American companies.

We need to stop turning our backs on the resources we have here at home and start reinvigorating our energy infrastructure. We need to start investing in American ingenuity and alternative fuels and stop trying to tax our way to energy independence while blaming American companies.

In conclusion, God bless our troops, and we will never forget September the 11th.

## SAN JACINTO DAY

(Mr. POE asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. POE. Mr. Speaker, April 21 is known as San Jacinto Day in Texas. In 1836, Texas was in a fight for independence from the dictator of Mexico, Santa Anna. On March 6, 1836, 186 volunteers from all races had fought and died at the Alamo trying to hold off the massive invading armies of Santa Anna. Meanwhile, General Sam Houston was forming an army of Texans and Tejanos—Tejanos were Texans of Mexican descent—to stand and fight the three invading armies of Mexico.