
The Age of Transitions

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Newt Gingrich, former Speaker of the U.S. House of Representatives, founded the Committee for New American Leadership to discuss and develop visions and solutions for the next century. The following is excerpted and adapted from a draft document posted on the committee's Web site: www.newamericanleadership.com. To offer ideas, comments, and suggestions for future drafts, e-mail age@newamericanleadership.com or call 202-463-6690.

Gingrich discussed the ideas in this article with a small group of Center of the American Experiment members and officers in Minneapolis in March 2000.

We are living through two tremendous patterns of scientific and technological change: the one brought on by computers, communications, and the Internet, and a coming combination of biology, information, and nanoscience (the science of minute objects one to four hundred atoms in size). Each would be powerful in itself. Combined, the two patterns guarantee constant transitions as one innovation follows another.

Those who study, understand, and invest in these patterns will live dramatically better than those who ignore them. Nations that focus their systems of learning, health, economic growth, and national security on these changes will have healthier, more knowledgeable

people in more productive jobs, creating greater wealth and prosperity and living in greater safety through more modern, more powerful intelligence and defense capabilities. Countries that ignore these patterns of change will fall behind and find themselves weaker, poorer, and more vulnerable than their wiser, more change-oriented neighbors.

The United States will have to continue to invest in science and to adapt our systems of health, learning, and national security to these patterns of change if we want to continue to lead the world in prosperity, quality of life, and military intelligence capabilities. At a minimum, we need to double the federal research budget at all levels, decisively reform science and math

learning, and modernize our government administration.

Since periods of transition are periods of dramatic cost crashes, we should be able to implement innovations and still save money. Government administration, for example, can be both more effective and less expensive.

The combination of better outcomes and lower costs will be produced not by liberal or conservative ideology, but by the systematic study and use of innovations and new technologies.

The Communications and Computer Revolution

The revolution that opened the Information Age began around 1965. Kenneth Boulding's *The Meaning of the Twentieth Century* (1964), Peter Drucker's *The Age of Discontinuity* (1969), Alvin and Heidi Toffler's *Future Shock* (1970), and their far more useful and analytical *The Third Wave* (1980) recognized this vast change. These commentators all understood that the industrial era was being replaced by something profoundly new. As Drucker's title indicates, they were not sure what would come out the other end, but they knew it would not simply be a more powerful industrial era.

Computing is a key element in this revolution. The numbers are stunning. According to Professor James Meindl, chairman of the Georgia Tech micro-electronics department, the first computer built with transistors, in 1955, had only 800 transistors. The Pentium 4 chip has 42 million transistors. In the next year or so, an experimental chip

with 1 billion transistors will be built. Within fifteen to twenty years, there will be a chip with 1 trillion transistors. That scale of change is enormous, and its implications are huge. It is fair to estimate that we are only one-fifth of the way into the computer revolution.

Yet focusing only on computer power understates the scale of change. Communications capabilities will continue to expand dramatically, and that may have as big an impact as computing power. Today, most homes get Internet access at 28,000 to 56,000 bits per second. Within a few years, a combination of new technologies for compressing information (allowing you to get more done in a given capacity) with bigger capacity (fiber optic and cable) and entirely new approaches (such as satellite direct broadcast for the Internet) may move household access up to at least 6 million bits per second; some believe that we may reach the 110 million bits needed for uncompressed motion pictures. Combined with the development of high-definition television and virtual systems, this will open up an amazing range of opportunities. The cell phone may develop into a universal utility with voice, Internet, credit card, and television applications all in one portable instrument.

The Nano World, Biology, and Information: The Next Wave of Change

While we are still in the early stages of the computer-communications revolution, we are already beginning to see

a new, even more powerful pattern of change that will be built on a synergistic interaction between three areas: the nano world, biology, and information.

The nano world may be the most powerful new area of understanding. The prefix nano denotes one-billionth: a nanosecond is one-billionth of a second; a nanometer is one-billionth of a meter. In this space, quantum behavior begins to replace the Newtonian physics you and I are used to.

In this world of atoms and molecules, new tools and new techniques are enabling scientists to create entirely new approaches to manufacturing and health. Nanotechnology “grows” materials by adding atoms and molecules; it is probably twenty years away, but it may be at least as powerful as space or computing in its implications for new tools and new capabilities.

Material technology breakthroughs will continue to change how we build things, how much they weigh, and how much stress and punishment they can take. For example, it may be possible to grow carbon storage tubes small enough to store hydrogen safely without refrigeration, thus enabling the creation of a hydrogen fuel cell technology with dramatic implications for the economy and the environment. New materials may make possible a one-hour flight from New York to Tokyo, an ultralightweight car, and a host of other possibilities. Imagine a carbon tube one hundred times as strong as steel and only one-forty-sixth as heavy; it has already been grown in the NASA Ames Laboratory. This

approach to manufacturing will save energy, conserve raw materials, eliminate waste products, and produce a dramatically healthier environment. The implications for the advancement of environmentalism and the irrelevance of oil prices alone are impressive.

The nano world makes it possible to grow molecular helpers: anticancer molecules, for example, that penetrate your cells without damage and hunt cancer at its earliest development. Imagine drinking with your orange juice 3 million molecular rotor rooters to clean out your arteries.

In the next decade, the Human Genome Project will teach us more about humans than our total knowledge to this point. The development of new technologies (largely a function of physics and mathematics) will increase our understanding of the human brain in ways previously unimaginable. From Alzheimer's to Parkinson's to schizophrenia, there will be virtually no aspect of our understanding of the human brain and human nervous system that will not be transformed in the next two decades.

We are on the verge of creating intelligent synthetic environments that will revolutionize how medical institutions both educate and plan. It will be possible to practice a complicated, dangerous operation many times in a synthetic world; feel, smell, appearance, and sound will all be precisely the same as in the real operation. Today's flight and combat simulators are stunningly better than the sand tables and paper targets of forty years

ago; an intelligent synthetic environment will be an even bigger breakthrough. Designing a building or an organization will be possible in the synthetic world before you do it for real. The opportunities for education will be unending.

The information revolution—computers and communications—will give us vastly better capabilities to deal with the nano world and with biology. The synergistic effect of these three systems—the nano world, times biology, times information—will lead to an explosion of new knowledge and new capabilities, thus creating the Age of Transitions.

Politics and Government in the Age of Transitions

In the foreseeable future, we will be inundated with inventions, discoveries, start-up companies, and entrepreneurial ventures that create new goods and services. The e-customer will become the e-patient and the e-voter. The process of politics and government will change accordingly.

No individual and no country will fully understand all the changes inherent in the entrepreneurial creativity of the Age of Transitions as they occur, or will be able to adapt to them flawlessly. There will be a significant premium on individuals, companies, and countries that learn and adjust rapidly.

A political party or movement that can combine into one national dialogue three elements—the reality and language of politics and government; the reality and language of everyday life; and the developments, ideas, and

realities of the Age of Transitions—will have an enormous advantage, both in offering better goods and services and in attracting the support of American voters.

New products and services are creating vast opportunities for improving everyday life. Government has an opportunity to use these new principles to develop far more effective and appropriate government services. Politicians have a chance to explain the opportunities offered by absorbing the innovations of the Age of Transitions into government and politics. We need political leaders who understand the scale of change we are undergoing and can offer effective guidance.

People are discouraged, and in some cases repulsed, by the conflict-oriented political environment, the nitpicking, cynical nature of political commentary, and the micromanaged, overly detailed style of political-insider coverage. The more Americans focus on the commonsense, cooperative efforts required in their own lives, and the more they focus on the excitement and the wealth-creating, opportunity-creating nature of the entrepreneurial world, the more they reject politics and government.

Not only do politics and government seem destructive and conflict-oriented, but their language seems increasingly archaic and their ideas increasingly trivial or irrelevant. People have grown accustomed to the speed, accuracy, and convenience of automatic teller machines that give them cash at any time in any city, to cell phones that work easily virtually everywhere,

to the ease of shopping on the Web and staying in touch through e-mail. They find the arcane, bureaucratic, interest-group nature of political dialogue and government policy to be painfully outmoded. Politicians attempt to popularize the obsolete.

Average voters sense that their lives are distant from the realm of politics—and this is even more true of the entrepreneurs and scientists who are inventing the future. They find the difference between their intensely concentrated, creative, and positive focus and the negative, bickering nature of politics especially alienating, so they generally stay aloof from politics unless a specific issue arouses their interest.

Voter-participation projects overlook the fact that voters avoid politics deliberately. In some ways this is a reversion to the American norm prior to the Great Depression and World War II. For most of American history, people focused their energies on their own lives and their immediate communities. The national government—and often even state government—seemed distant and irrelevant.

This was the world of very limited government desired by Thomas Jefferson and described by Alexis de Tocqueville in *Democracy in America*. With the exception of the Civil War period, this was the operating model from 1776 until the 1930s. The Depression led to the rise of big government, World War II to even bigger government, and the cold war to a focus on Washington: when there was a real danger of nuclear war and a threat to the survival of freedom, it was natural for the president to

be the central figure in America and for attention to focus on Washington.

With the collapse of the Soviet Union, power and attention gradually have shifted out of Washington and back to states and local communities. There has been a steady decline in popular attention to national politics. Those who complain about this pattern and seek higher turnout and greater public participation misunderstand the mechanisms that are at work.

Voters as customers are telling politicians and the government something profound by their indifference: political leaders are simply failing to produce ideas that are worth the time, attention, and focus of increasingly busy American citizens.

After a year of traveling through twenty-three states and spending time with entrepreneurs, scientists, and venture capitalists, I am increasingly convinced that the American voters are right.

Let us imagine a world of 1870 in which the private sector had completed the transcontinental railroad and the telegraph, but the political-governmental elites had decided to operate by the rules of the pony express and the stagecoach. In private life and business life, you could telegraph from Washington to San Francisco in a minute and ship cargo by rail in seven days. In political-governmental life, however, you had to send written messages by pony express (two weeks) and cargo by stagecoach (two months). The growing gap would have driven you to despair about anachronistic political and government systems.

Similarly, imagine a 1900 Washington conference on transportation improvement at which the political-governmental elites had ruled that the only topic would be the future of the horseshoe, and busied themselves with a brass-versus-iron debate. Henry Ford's idea of a mass-produced automobile would be ruled impractical and irrelevant. The Wright brothers' airplane would be laughed at as an absurd fantasy. Neither Ford nor the Wrights would champion either the brass or the iron side of the horseshoe debate. Yet which would do more to change transportation over the next two decades: the political-governmental power structure of Washington, or the visionaries experimenting without government grants, unknown to the elites?

Consider just one example of the extraordinary—and growing—gap between the opportunities of the Age of Transitions and the reactionary nature of government systems. You can use your ATM card to get cash out of your checking account twenty-four hours a day, seven days a week, anywhere in the country. Compare that speed, efficiency, security, and accuracy with the paper-dominated, fraud- and waste-ridden Health Care Financing Administration with its 133,000 pages of regulations (more than the Internal Revenue Service). As a symbol of a hopelessly archaic model of bureaucracy, there are few better examples than HCFA.

The growing gap between the emerging realities of private life in the Age of Transitions and the increasingly obsolete and timid proposals—the

horseshoe improvements—of politics and government causes more and more voters to ignore politics and focus on their own lives.

This is precisely the pattern Norman Nie and his coauthors describe in *The Changing American Voter*. A pool of latent voters who in the 1920s found nothing in the political dialogue to interest them simply stayed out of the process as long as it stayed out of their lives. The Depression did not mobilize them. They sat out the 1932 election. Only when Franklin D. Roosevelt's New Deal policies penetrated their lives did they become involved. In 1936 Alf Landon, the Republican nominee, actually received a million more votes than Herbert Hoover had gotten in 1932—but FDR received 7 million more votes than he had gotten in his first election. This massive increase in participation created the Democratic majority, which in many ways survived until the 1994 election.

When Republicans designed a positive campaign of big ideas in the 1994 Contract with America, some 9 million additional voters turned out (the largest off-year one-party increase in history). When Jesse Ventura offered a real alternative (at least in style) in 1998, younger Minnesota voters turned out in record numbers. Bold promises in a positive campaign engage people who have been turned off by politics.

An opportunity awaits those who can integrate the possibilities being created by the Age of Transitions into bold proposals and describe them in a way that makes sense to average Americans.

The Jeffersonians, the Jacksonians,

the early Republicans, the Progressives, the New Dealers, and the Reagan conservatives all created a new understanding of America at a historic moment. We aren't any smarter, and we won't get it done any faster, but the time to start is now, and the way to start is to understand the scale and underlying principles of the opportunity.

Characteristics of an Age of Transitions

Thirty-six years after Kenneth Boulding's first explication of the coming change, and thirty-one years after Peter Drucker explained how to think about a discontinuity, we know more about what is happening in the Age of Transitions.

More scientists, engineers, and entrepreneurs are active today than in all of previous human history. Venture capitalists are developing powerful models for investing in and growing start-up companies, and in the process they are acquiring more and more capital as the markets shift away from the smokestack industries and toward new models. In the growing world market, more entrepreneurs of more nationalities are competing for more customers than ever before in human history.

The growing momentum of change means that no understanding, no reform, no principle will last for very long. Just as we get good at one thing, or come to understand one principle, it will be challenged by a new idea or achievement emerging from a direction we haven't considered. We really know only one thing: more change is com-

ing. The full impact will not be known in our lifetime.

Within these humbling limitations, I define eighteen powerful characteristics of the Age of Transitions and their implications for developing government policy and politics.

Costs will crash. Declines in costs—in many cases steep declines—will continue. An ATM is dramatically cheaper than a bank teller. A direct-dial phone call is much less expensive than an operator-assisted call. My brother used Priceline.com to buy four airline tickets for his family for the price of one regular ticket. We have not even begun to realize how much costs will decline—including the costs of health care, education, and government administration. Nor have we yet learned to think in terms of purchasing power instead of salary, yet this is likely to be a huge change in both purchasing power and behavior for individuals and governments. Those who are aggressive and alert will find remarkable savings by moving to the optimum cost crashes faster than anyone else. As a result, they will dramatically expand their purchasing power.

Customer-centered, personalized systems will dominate. Amazon.com after a while begins to sense your interests and suggests books you may like. We can consider personal Social Security Plus accounts; we already have personal Roth IRAs and 401(k) accounts. We can consider personal learning and personal health systems just as we have e-tickets for our Internet-purchased airline tickets. Any system that is not

personalized and responsive will rapidly be replaced by one that is.

24-7 is the world of the future. Customer access twenty-four hours a day, seven days a week will be the standard. You can get cash anytime from an ATM, yet today's schools combine an agricultural-era nine- or ten-month school year (summers off for harvesting) with an industrial-era fifty-minute class, in which the foreman is at the front of the room facing a class of workers, in a factory-style school day, in a Monday to Friday workweek. In the future, customized learning will be embedded in the computer and on the Internet, available on demand to learners at their convenience. Similarly, government will have to accommodate its customers' needs rather than demanding that the customers make themselves available at the bureaucrats' convenience.

Convenience will be prized. As customers get used to one-click shopping (note the shopping-cart approach on Amazon), they will demand similar convenience from government. People increasingly will order products and services to be delivered to their homes; they will initially pay a premium for this convenience but over time will conclude that it is a basic requirement of any business they deal with. After a while, e-customers will begin to carry these attitudes into their relationship with bureaucracy, and as e-voters they will favor politicians who work to make their lives more convenient.

Convergence of technologies will increase convenience, expand capabilities, and lower costs. The various computa-

tion and communication technologies—cell phones, computers, landlines, mobile systems, satellite capabilities, cable—will rapidly converge into a unified system, dramatically expanding both capabilities and convenience.

Expert systems will empower processes. When you make an airline reservation on the Internet, you are dealing with an expert system. In virtually all Internet shopping, you are actually asking questions of such a system. The great increase in capability for dealing with individuals is a function of the growing capacity of expert systems, which will someday revolutionize health, learning, and government as they have the commercial world. A simple rule to apply to every government function is this: If an activity can be codified and standardized, it should be done by an expert system rather than a person.

Middlemen will disappear. This is one of the most powerful rules of the Age of Transitions. In the commercial world, where competition and profit margins force change, customers are served more and more from very flat hierarchies, with few people in the middle. In the protected guilds (medicine, teaching, law, and any group that can use its political power to slow change) and in government structures, there are still large numbers of middlemen. This will be one of the most profitable areas for political and governmental leaders to explore. In the Age of Transitions, the customer is foremost; eliminating unnecessary layers creates a more agile, more rapidly changing, more customer-centered, and less expensive system.

Changes will come from everywhere. The past thirty years have seen a growing shift toward new ideas coming from new places. Anyone can have a good idea, and the key is to focus on the power of the idea rather than the pedigree of the inventor. This principle directly challenges some of the peer review assumptions of the scientific community, much of the screening for consultants used by government, much of the credentialing done by education and medicine, and much of the contractor certification done by government. It requires us to search widely for the newest idea, the newest product, and the newest service, and it requires testing by trial and error more than by traditional credentials.

Resources will shift from opportunity to opportunity. One of the most powerful engines driving the American economy has been the rise of an entrepreneurial venture capitalism that moves investments to new opportunities and grows those opportunities better than any other economy in the world. There is as yet no comparable government capacity to shift resources to start-ups and to empower governmental entrepreneurs. There are countless efforts to reform and modernize bureaucracies, but that is exactly the wrong strategy. Venture capitalists seldom put new money into old corporate bureaucracies. Even many established corporations are learning to create their own start-ups: they have to house new ideas and new people in new structures to get the big breakthroughs. We need a doctrine for a venture capitalist-entrepreneurial model of government.

Rapid development of better, less expensive products will lead to a continued process of replacement. Goods and services will take on a temporary nature as their replacements literally push them out the door. The process of new, more capable and less expensive goods and services, and in some cases revolutionary replacements that change everything (as photocopiers, fax machines, e-mail, and personal computers have done) will lead to a sense of conditional existence and temporary leasing that will change our sense of ownership.

The focus will be on success. Entrepreneurs and venture capitalists have a surprisingly high tolerance for intelligent failure. They praise those who take risks, even if they fail, over those who avoid risks, even if they avoid failure. To innovate and change at the rate required by the Age of Transitions, government and politicians will have to shift their attitudes dramatically (and it would help if the political news media joined them in this). Today, it is far more dangerous for a bureaucrat to take a risk than it is to do nothing; the system rewards (with retirement and lack of controversy) serving your time in government. There are virtually no rewards for taking risks and sometimes failing, sometimes succeeding. In science, technology, and entrepreneurship, the great breakthroughs often involve a series of failures. (Consider how Thomas Edison's thousands of failed experiments would have appeared in a congressional hearing or a news media exposé.) Encouraging innovation and rewarding success while tolerating intelligent failure

would set the stage for a modernized government.

Venture capitalists and entrepreneurs will focus on opportunities. This is similar to focusing on success but refers to the zone in which energy and resources are invested. It is the nature of politics and government to focus on problems (schools that fail, hospitals that are too expensive, people living in poverty) when the real breakthroughs come from focusing on opportunities (effective new models of learning, lower-cost approaches to health care, ways to get people to work so they are no longer poor). Venture capitalists are good at focusing on opportunities. Politicians and the political news media tend to focus on problems. The great possibilities for change and progress are in the opportunities.

Real breakthroughs will create new products and new expectations. Before Disney World existed, it would have been hard to imagine how many millions of people would travel to Orlando. Before the Super Bowl became a cultural event, it would have been hard to imagine the entire country stopping for an evening. Before faxes and e-mail . . . well, you get the point.

One of the key differences between the public and private sectors is the speed at which new products are accepted and new expectations are created. In the private sector, competition and the customer force change. Government and government-protected guilds tend to use the new to prop up the old. For two generations, we have tried with minimal results to get computers into classrooms—but that's

backward: the key is to get the classroom into the computer and the computer into the child's home. Doctors still resist the information technologies that will revolutionize health care, lower administrative costs, and dramatically decrease unnecessary deaths and illnesses.

Speed will matter: new things need to get done quickly. "Launch and learn," an Internet-industry phrase, captures the entrepreneurial sense of getting things done quickly: you launch your business or your product and learn as you go. One Silicon Valley entrepreneur suggested that he had moved back to California because he could get things done there in the same number of days as the months it would have taken in the East. Moving quickly produces more mistakes, but it also produces the learning that occurs only by trying things out. The sheer volume of activity, and the speed of correcting mistakes as fast as they are discovered, allows a "launch and learn" system to grow dramatically faster than a "study and launch" system. This is one of the major differences between the venture capitalist-entrepreneurial world and traditional corporate bureaucracies.

Governments tend to study and study without ever launching anything truly new, and the gap between the public and private sectors gets wider in the Age of Transitions. It takes longer for a presidential appointee to be cleared by the White House and approved by the Senate than it takes to launch a start-up company in Silicon Valley.

Baby businesses will flourish. Venture capital and entrepreneurship are about baby businesses rather than small businesses. Venture capitalists know that in a period of dramatic change, it is the occasional home run rather than many singles that really makes the difference. The result is that venture capitalists examine every investment with a focus on its upside. If it does not have a big enough growth potential, it is not worth the time and energy to make the investment. Government tends to make large, risk-averse investments in relatively small, controllable changes. This is almost the exact opposite of the venture capital-entrepreneurial model. The question to ask is: If this venture succeeds, how big will the difference be? If the potential difference isn't very substantial, look for a more powerful proposal.

Business-to-business will be the first big profit opportunity. Although the Internet market at present is focused on sales to the final customer, that market is still relatively small and unprofitable. Meanwhile, Internet-based systems are creating business-to-business opportunities that will dramatically lower the cost of doing business. Every government, at every level, should be rationalizing its purchasing system, moving onto the Net to eliminate paper purchasing, and seeking savings in the 20 to 30 percent range. The opportunities for a paperless health care system could lead to a crash in costs.

Applying quality and lean thinking will save enormous amounts of money. Whether it is the earlier model of qual-

ity espoused by Edwards Deming or the more recent concept of lean thinking advocated by James Womack and Daniel Jones, there is an existing model of systematically thinking through production and value, and creating more profitable, less expensive approaches. Companies that have followed this approach have had remarkable success in producing better products at lower cost, yet it is almost never used by people who want to rethink government.

Partnering will be essential. No company or government can possibly understand all the changes of the Age of Transitions, and new ideas emerge with great speed. It is more profitable to partner than to try to build in-house expertise; this allows everyone to focus on what they do best while working as a team on a common goal. Although this is the dominant organizing principle of the current era of start-ups, it is prohibited throughout most of government. As government bureaucracies fall further and further behind the most dynamic of the start-ups (in part because civil service salaries cannot compete with stock options for the best talent), it will become more and more important to develop new mechanisms for government partnerships with the private sector.

The Principles of Political-Governmental Success in the Age of Transitions

In the Age of Transitions, breakthroughs in government and politics will have to meet several key criteria:

they will be personal (that is, they will affect people's daily lives); they will be based on big ideas; they will be couched in everyday language; and they will be practical, positive, and electronic.

Personal. Only a major crisis such as a steep recession or a major war will bring people back to politics. In the absence of a national crisis, political leaders will have to take government and politics into people's lives via new technologies and new opportunities to offer better solutions that will really affect people's lives.

Big ideas. People will simply nod pleasantly at the little ideas but do nothing to get them implemented. To attract millions of new people into the process, an idea will have to be big enough and personal enough to be worth their time and effort.

Common language. People have grown so tired of the bickering, the conflict, and the reactionary, obsolete patterns of traditional politics that they turn off the minute they hear them. New solutions require new words, and the words will have to grow out of daily life rather than out of the glossary of intellectual elites or the slogans of political consultants.

Practical. The successful politics of the Age of Transitions will almost certainly be pragmatic and practical rather than ideological and theoretical. The first question is going to be "Will it work?" People will favor conservative ideas they think will work, and they will favor big-government ideas that they think will work. Their first test will be "Will my family and I be better

off?" and their second test will be "Can they really deliver and make this work?" Only when a solution passes these two tests will a majority of people support it. Note that both questions are pragmatic; neither is theoretical or ideological.

Positive. Successful politicians in the Age of Transitions will devote 80 percent of their time to developing large positive solutions, communicating them in the language of everyday life, and gathering grassroots coalitions and activists to support them. They will never spend more than 20 percent of their effort on describing the negative characteristics of their opponents. When they do describe their opponents' destructive side, it will be in terms of the cost of reactionary forces blocking new solutions and better programs. (Study Franklin Roosevelt's 1936 and 1940 campaigns for models of this lifestyle definition of the helpful and the harmful. FDR was tough on offense, but, more importantly, he cast the opposition in terms of how they hurt the lives of ordinary people.)

Electronic. The successful large, personal, positive, practical movement of the Age of Transitions will be organized on the Internet, and it will be interactive. Citizens will have a stake in the movement and an opportunity to offer ideas and participate creatively in ways no one has ever managed before. The participatory explosion of Ross Perot's 1992 presidential campaign, in which tens of thousands of volunteers organized themselves, and the Internet-based activism of the closing weeks of Jesse Ventura's 1998

gubernatorial campaign in Minnesota are forerunners of an interactive, Internet-based movement.

No one has yet mastered the challenge of building a genuinely interactive citizen-focused system that allows people to get information when they want it, offer ideas in an effective feedback loop, and organize themselves in a reasonably efficient and convenient manner. When the magnitude of the solution and the sophistication of the system come together, we will have a new model of politics and government that will be as defining as the thirty-second commercial and the phone bank have been.

Proposals Big Enough to Attract the American People

To engage the attention and support of the American people, politicians must put forward bold ideas couched in everyday terms. The following proposals apply solutions available in the Age of Transitions to that end.

Establish Social Security Plus

All Americans deserve the right to control a portion of their FICA tax in a tax-free account they can invest in a broad range of instruments. This will save Social Security permanently without a tax increase or benefit cut. The poorest worker will have a savings account within six months of starting to work, and within a few years will be a saver and investor with a piece of the action.

For younger Americans, this can produce three to six times the retirement wealth they will get from the

government, and it will protect the system from collapsing when the baby boomers retire. For older Americans, this step, coupled with the end of the penalty for working, abolition of the death tax, and the guarantee that they would get every penny, including cost of living increases, that is due them, will improve their lives.

African American males, who have a lower life expectancy than other Americans, as a result transfer an average of \$10,000 in FICA tax to other people; Social Security Plus will allow them to pass their savings on to their families.

Hispanics have the lowest savings rate of any group in the country. Social Security Plus will create, overnight, a retirement savings account for every working Hispanic. It is a powerful tool for increasing the wealth of younger Hispanics and Hispanic families.

By transferring well over a trillion dollars from the control of government back into the private sector, Social Security Plus will lower interest rates, increase the availability of capital, and increase economic growth.

Properly communicated in personal terms and in the language and media of a variety of groups, and with the support of activist-advocates from all those groups, the advantages of Social Security Plus will draw an entire generation of younger Americans from all ethnic backgrounds into politics to support a reform that will dramatically improve their lives and increase their wealth. (See www.SocialSecurityPlus.org for more information.)

Establish a Max Tax

Americans deserve more take-home pay, both in the short run with a big tax cut and in the long run with lower taxes in general. (In everyday language, “more take-home pay” is more real and more powerful than “tax cuts,” which is a political term that translates into more take-home pay.)

The national budget surplus gives us an opportunity for a major tax cut, and the Age of Transitions gives us an opportunity to modernize and privatize government until we cap all taxes (state, federal, and local) so that no American pays more than a total of 25 percent of his or her income in taxes. The two goals are reinforcing but not identical.

The surplus belongs to American taxpayers, who deserve to get their own money back through a large tax cut. Money left in Washington will be spent by politicians to expand government and please interest groups. The choice offered by a surplus is simple: a tax cut or bigger government. A big tax cut will give taxpayers more take-home pay and keep the federal government from growing.

Within ten to fifteen years, modernizing and privatizing government should bring all taxation down to a maximum tax of 25 percent. For forty years, Americans have told *Reader's Digest* that they favor a maximum tax of 25 percent of their income. In peacetime, if you work all day Monday and part of Tuesday for the government, you should be allowed to work the rest of the week for yourself, your

family, your voluntary charities, your religious institution, and your own retirement.

Readers of Tocqueville's *Democracy in America* and Marvin Olasky's *The Tragedy of American Compassion* know that America historically was a very low tax nation. A 150-year history of limited government with limited taxation in peacetime ended in the 1930s. The theory was that strong citizens and active communities could work within limited, effective government in a pattern that maximized freedom and minimized the dangers of dictatorship (this is the heart of the eighteenth-century Whig critique of the British political system that was the basis of Jefferson's model of government).

The *Tragedy of American Compassion* makes painfully clear that our seventy-year experiment in large, centralized bureaucratic government has been costly in lives wasted and people trapped in poverty. One of our greatest achievements was the welfare reform that liberated over 50 percent of the people on welfare and returned them to jobs and to school. In some states, we now have so few people on welfare that there is a real opportunity to get every one of them to work.

After balancing the budget and reforming welfare, the next stage is to set as a goal the dramatic modernization and privatization of government so that total combined taxes can be capped at 25 percent of an individual's income. This goal may seem grandiose, but remember that when Governor Ronald Reagan first proposed welfare

reform at the National Governors' Conference in 1970, he was defeated 49 to 1. Not a single Republican governor voted with him; the idea was too bold. By 1996 we had won the argument so decisively that a New York Times poll found that 92 percent of the American people favored welfare reform, including 88 percent of the people on welfare.

America today ranks behind a number of other countries in the successful privatization of government functions. The Age of Transitions is going to make possible dramatic improvements in goods and services at lower costs simply by bringing together modern technology, entrepreneurship, and venture capital approaches to transform obsolete and archaic government services. Consider just a few examples of the possible changes that provide both better services and lower taxes:

- British and French water systems have never been run by the government, and the result is a higher level of technical and management skill than in most government-run systems. Contracting out its water system saved the city of Atlanta 44 percent a year. Savings in the seven major cities that have privatized their water so far have run from 20 to 50 percent; the average has been about a third—which would amount to \$500 million a year for New York City. The citizens get better water at lower cost.
- Only 18 percent of the child support that is due is actually paid. Government is so incompetent that

\$3 billion is actually sitting in the bank because it has been paid but the government can't find the children. Minimalist attempts at private contracting within the current system routinely fail because the public employee unions simply sabotage them; union dues apparently are more important than children. Liberal politicians sympathize with children in poverty, but not enough to fight the unions that elect them. We live in an age when Visa, MasterCard, and American Express all do a good job of finding their card members and getting them to pay. Private collection companies could make a big profit collecting more money for more children. Only our commitment to the obsolete model of bureaucratic enforcement keeps millions of children in poverty.

- Zoo Atlanta, once an \$800,000-a-year city bureaucracy run so badly it was on the verge of losing its accreditation, is now a privately run \$11 million-a-year research institution of world renown. A nationwide move toward privatized zoos with entrepreneurial leaders is creating better institutions with more aggressive, creative energy, a greater focus on the public, and much lower taxpayer costs.

These are just three examples of opportunities for privatization and modernization. Any serious look at Europe or Latin America would yield dozens of examples of systems formerly run by the

government now being run better, at lower cost and with greater customer satisfaction, in the private sector. (See www.MaxTax.org for more information.)

Modernizing and privatizing government to get the maximum tax down to 25 percent is perfectly compatible with paying down the federal debt; a smaller debt means smaller interest payments. A series of annual debt payments combined with annual tax cuts would achieve the goal of a smaller debt, a smaller government, lower taxes, more take-home pay, and greater economic growth, with lower interest rates. In 1997 we cut taxes and balanced the budget by controlling government spending. The alternative is to neither cut taxes nor pay down the debt but instead to divert the money. We should drop the argument of tax cuts versus debt reduction and simply do both.

End the Death Tax

Americans are overwhelmingly in favor of abolishing the death tax. This is not a new development. When ending the death tax was on the California ballot in 1982, it won with 65 percent of the vote despite media opposition.

People intuitively know that it is wrong to punish grandparents for saving for their grandchildren, that if government has already taxed money once it should not be able to tax it again, and that the very rich use lawyers and trusts to avoid the tax while the real losers are the workers who lose their jobs when the family business is sold.

This tax hurts economic growth by diverting money to lawyers and loop-

holes, and by discouraging economic activity among the elderly. We would have a bigger economy, with faster growth, more jobs, and greater wealth, if we abolished the death tax.

Use Technology to Empower the Disabled

The Age of Transitions is going to create marvelous opportunities to use technology to improve the lives of Americans with significant disabilities. With access to technology, people who have previously been perceived as unable to contribute to society can be productive. The Internet can create opportunities in ways we have yet to explore.

We should start by doubling the federal budget for scientific research and development, and overhauling both the bureaucratic structures and the anti-work, anti-common sense rules of the federal government. The 120 federal agencies currently dealing with disabilities administer public policies that clearly discourage work and undermine families while encouraging the warehousing of people in costly institutions. We need to make capital investments in people rather than "maintaining" them in lifelong dependence on the government. Citizens with significant disabilities are denied freedom and opportunity by existing policies that require them to be indigent and unproductive in order to be eligible for health care insurance and other essential supports.

If we are to empower citizens with significant disabilities, and if society is to benefit from their abilities, we must

redesign all federal and state disability programs to foster independence and dignity. The current “maintenance” model is a slow death that fosters dependence and dehumanization. An “empowerment model” will afford these Americans the same opportunities other citizens take for granted—the opportunities to live, work, and learn in their communities.

This is a perfect example of a bold Age of Transitions solution that simply leaves behind the bureaucratic rhetoric of the old system.

Improve Health and Health Care

Health and health care can be dramatically improved for virtually every American, and in the process the price will come down.

According to an Institute of Medicine report, our obsolete system kills an estimated 98,000 hospitalized Americans a year. Two-thirds of those deaths (about 65,000) are caused by inappropriate prescriptions for people whose current drug prescriptions or past history make the new prescription lethal. Hundreds of thousands of Americans are rehospitalized annually as a result of inappropriate prescriptions. The human and financial cost is a significant part of our health budget.

The Age of Transitions has already invented solutions that would save more than 50,000 lives and several billion dollars a year: doctors could enter prescriptions in a small portable computer; patients could have computerized health records; a computer could check each new prescription against a

patient’s records to make sure it will do no harm. The technology is available, but each part of the system clings to obsolete processes.

Patients ought to own their own health records, and those records should be electronic. Billing should be electronic, and the patient should be able to review it for accuracy (imagine a restaurant that refused to let you see the bill). Patients ought to have access to full information about their health situation and to the most current developments that might affect their chances of survival.

Litigation laws must be reformed to protect doctors and hospitals that voluntarily report their errors. The system will keep lying to itself and to us if the price of honesty is a lawsuit and bankruptcy. Some system of balance between the right to sue and the vital importance of honest self-reporting must be found.

Citizens should have the true patients’ right: the right to buy their own tax-deductible health insurance if they don’t like the HMO or insurance company their employer has chosen. Tax-deductible group health insurance is an accident of a 1943 wage-price decision to help workers without increasing inflation. We do not need to abolish group insurance; we simply need to give workers the right to take their share of the deduction if they disagree with their employer’s choice.

The argument that individual insurance is too expensive is simply technologically ignorant. Within a year or two, the Internet will allow aggregated

individual accounts without agents' commissions (unless state laws artificially block such accounts).

Every citizen should be allowed 100 percent deductibility in buying health insurance so that everyone is on an equal footing. In the Age of Transitions, all citizens should have their own health insurance; this requires a Fair Care approach of creating a focused tax credit for the working poor. It would also require changing Medicare and Medicaid into vouchered systems to return the power of purchasing health insurance to individual Americans.

The absurdity of the Health Care Financing Administration's 133,000 pages of regulations and the fact that HCFA continues a paper system when electronic billing would save billions of dollars and decrease fraud by allowing patients to review their records should be all we need to know to replace HCFA with an entrepreneurial model for encouraging the most modern delivery of health care at the lowest cost.

We should favor doubling the federal science budget as rapidly as possible and across the board. As the public follows events like Michael J. Fox's battle with Parkinson's disease, there is a growing constituency for finding solutions. The movement that recognizes the value of scientific advance and is prepared to make it an extremely high priority will have a vast coalition of people who support that goal. The investment should be broad rather than narrowly focused on the National Institutes of Health; the basic sciences—math, physics, chemistry—provide the under-

lying principles and technologies that make scientific advances possible.

Improve Learning

Learning is a primary requirement of success in the Age of Transitions. Everyone will have to learn all his or her life. Our current failure in bureaucratic, government-run education is clearly a threat to our success in the next quarter century. Some key steps need to be taken:

Learning must be defined as a lifetime process, and learning systems should be learner-focused, Internet-based, and available on a 24/7 basis.

Every school should deliver good education or be closed. Children should not be sacrificed for union dues or bureaucratic comfort.

Every child deserves a publicly financed education, but the child's parents should determine whether the school is meeting the child's needs. If the school is failing, parents should have the right to send their child to a school (public or private) that they believe will prepare their child for a lifetime of work and citizenship.

Teachers should have a disciplined environment in which to focus on teaching. Master teachers and star teachers should be paid commercially competitive salaries. Teaching should become an entrepreneurial and missionary endeavor, and great teachers should have access to stock options, salaries, and bonuses that make teaching a competitive profession again (note that the measure is student success—not accreditation, certification, years in service, etc.). Start-ups and

companies could be encouraged by tax breaks and changes in SEC rules to donate stock to pools for star and master teachers. The first teacher millionaire who earned the money by education achievement would dramatically change thinking about teaching as a profession.

Unnecessarily expensive colleges and universities should use new technologies and systems to lower the cost of higher education and make it dramatically more accessible for all Americans. There are virtually no incentives, and a lot of roadblocks and hostilities, to any effort to modernize and rationalize higher education, yet the cost to families, taxpayers, and students is growing absurd.

Rebuild National Defense

We must take at least seven major steps to rebuild America's strength and provide for our security in an increasingly dangerous world:

Focus resources on helping Colombia win its war against the drug cartels. Colombia is vastly more important to America's immediate interests than Kosovo or Bosnia, yet we have starved the war in Colombia and ignored the needs of our neighbor. We should undertake all steps necessary to support democracy in Colombia and to destroy the drug cartels' ability to survive in that country.

Build a space-based global missile defense system that is capable of protecting our troops on overseas deployments, our allies' cities, and our homeland. We could someday lose a city or an expeditionary force because

the diplomats and the lawyers prevailed over the scientists and the engineers. We should be committed to giving our people and our allies maximum protection against a limited missile attack by building the best system we can develop.

Develop a much more sophisticated intelligence capability in order to simultaneously monitor terrorist groups, a wide variety of countries, and several emerging centers of power. We will need more human intelligence about terrorists and more human analysis of complex events. Those who complain that the intelligence agencies overlook things should realize that intelligence is even more thinly stretched than the military, and that the requirements of a decentralized world have dramatically expanded the burden on the intelligence agencies. We will also have to rethink hiring and salary policies if the intelligence agencies are to have access to the new sciences that have attracted venture capital support and priced government out of the market.

Overhaul the failed policies of not protecting our secrets. From penetration of the political process by Chinese and Indonesian sources to penetration of the nuclear laboratories by foreign spies to a scathing report by the State Department inspector general, there has been a government-wide failure to protect American secrets. This has to be reversed, and American security has to be reestablished.

Establish a homeland defense system to counter the grave danger of weapons of mass destruction (nuclear, biological, and chemical) and to prepare for

the health, security, and reconstruction requirements of a terrorist or rogue state attack on one or more American cities using a biological, chemical, or nuclear weapon. The danger is greater than people believe, and the complications of dealing with such an attack are enormous. A prepared America could save hundreds of thousands—and possibly millions—of lives. A coordinated effort of the military, the Federal Emergency Management Administration, the Centers for Disease Control and Prevention, the FBI, and state and local authorities is required.

Launch research and development for a next-generation military and intelligence capability. The Age of Transitions will require a series of leapfrogging disruptive technological advances if the United States is to maintain its current lead over the rest of the world. The tendency of all bureaucracies is to focus on risk-avoiding incremental change. In a period of dramatic scientific and technological advance, that will allow others to catch up with us. Our goal should be to create a bloc obsolescence of the current American defense system and replace it with a next-generation model around 2010 and then a second replacement wave around 2020.

Symbolically reduce the Pentagon—a massively hierarchical bureaucracy in a world of small venture start-ups—to a triangle by eliminating at least 40 percent of the midlevel management, decentralizing, and focusing on the forces in the field rather than the bureaucracy in the city.

Promote Safety at Home

Protecting ourselves from violence is one of the most important obligations of government. We need to take three decisive steps—two short-term and one long-term—toward a safer America.

First, we must focus the resources necessary to win the war on drugs. We have to sharpen the focus on discouraging drug use in America. A decline in drug use has a significant impact on violence; we have all too often focused on almost anything but winning the war on drugs.

Second, we should focus on criminals in order to decrease crime. The program developed in Richmond, Virginia, to lock up felons who are picked up with guns has dramatically lowered the violent crime rate in Richmond. It works without registering guns. We will expand the proven success of creating safer cities to every part of the country by focusing on the criminal rather than harassing the innocent. If we implemented this program across America, thousands of innocent people who would have become victims of violent crime will instead be safe. We can save those citizens and their families by aggressively going after the guilty.

Finally, over the long run, we have to reintegrate adolescents, and especially adolescent males, into adult society. The Age of Transitions will create many opportunities for young people to be engaged in far more exciting activities than standing on a street corner. In the most violent and lost parts of our culture, nothing less than reintegration

into healthy relations with adults and opportunities to do real work for real rewards will suffice to keep some young people from destructive and self-destructive behaviors.

Institute Scientifically Based Environmentalism

The Age of Transitions will make possible a dramatically more powerful understanding of the environment and of how we can manage our role on the planet for optimum biodiversity and economic growth. We should pioneer breaking out of the current regulatory-litigious-bureaucratic-and-political sloganeering approach to the environment and develop a much more powerful and positive model of integrating scientific knowledge into decision making.

Global warming is a perfect example of the gap between scientific knowledge and political rhetoric. Tens of billions of dollars have been allocated for various Kyoto Conference agreements and other measures to “fix” a problem that is considered “conventional wisdom” in the political world. However, we are learning new information every day that casts, at the very least, a reasonable doubt on how much we actually know about the existence of global warming or its potential causes.

We have just learned, for instance, about a new phenomenon—only three years in discovery—called the Pacific Decadal Oscillation, which scientists believe may put us on the brink of a change in climate patterns that could last twenty or thirty years (Washington

Post, January 20, 2000). The Pacific Ocean—one-third of the earth’s surface—is affected by it. These scientists believe they would need ten years’ worth of data in order to “declare with confidence” that they know what it means. It involves fluctuations and reversals in temperature, and it has the potential to affect weather from China to the Sahara.

Rather than engaging in an ideological fight over global warming, we should insist that the National Oceanic and Atmospheric Administration, the National Science Foundation, NASA, and the National Academy of Sciences develop a thorough ten-year strategy for dramatically increasing our understanding of weather and climate. Only then will we have the level of knowledge necessary to make the tough environmental decisions that have a significant impact on society.

Additionally, many of our clean air problems will be solved if hydrogen fuel cell technology continues to develop.

Finally, a sophisticated monitoring system for the rain forests, combined with corporate leadership in developing strategies for protecting them, could lead to a dramatic improvement in their survival.

These are examples of a more aggressive approach—based on science and technology, modern management, and free enterprise—to a healthier environment, greater biodiversity, a growing economy, and expanded freedom.

Include Everyone

Our political system cannot be effective without being inclusive. The American people have decisively concluded that they want a unified nation with no discrimination, no bias, and no exclusions based on race, religion, sex, or disability. A political party or movement that is seen as exclusionary will be a permanent minority. The majority party in the Age of Transitions will offer solutions that improve the lives of the vast majority of Americans and will recruit activists from minority groups to communicate in minority media and to work with existing institutions in minority communities. For Republicans, in particular, this will mean a major effort to attract and work with every American of every background. Only a visibly, aggressively inclusive party will be capable of being a majority in the Age of Transitions.

The ultimate arbiter of majority status in the next generation will be the Hispanic community. The numbers are simple and indisputable. If Hispanics become Republican, the Republican Party will be the majority party for the foreseeable future; if Hispanics become Democrats, the Democratic Party will be the majority party for at least a generation. On issues and values, Hispanics are very open to the Republican Party; on historic affinity and networking among professional politicians and activist groups, Democrats have an edge among Hispanics. There should be no higher priority for American

politicians than reaching out to and incorporating Hispanics at every level in every state.

Conclusion

The political party or movement that first understands the potential of the Age of Transitions, develops an understanding of its operating principles and applies them to creating better solutions, and then communicates those solutions in the language of everyday life will have a great advantage in seeking to become a stable, governing majority.

This paper outlines the beginning of a process as big as the advent of the Progressive Era or the rise of Jacksonian democracy, the New Deal, or the conservative movement of Goldwater and Reagan. It describes the beginning of a journey, not its conclusion. Creating the inevitable breakthroughs will require a lot of people learning, experimenting, and exploring over the next decade. To participate in that process or be informed as it develops, send an e-mail message to:
age@newamericanleadership.com. n