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Al Gore's five challenges to the telecom world

This is the third time in four years I have had the honour of speaking to this distinguished audience. The first time, I travelled 8000 km from the White House to Buenos Aires. The second time, I spoke to you by way of satellite in Kyoto, and invited you to come to the United States this year.

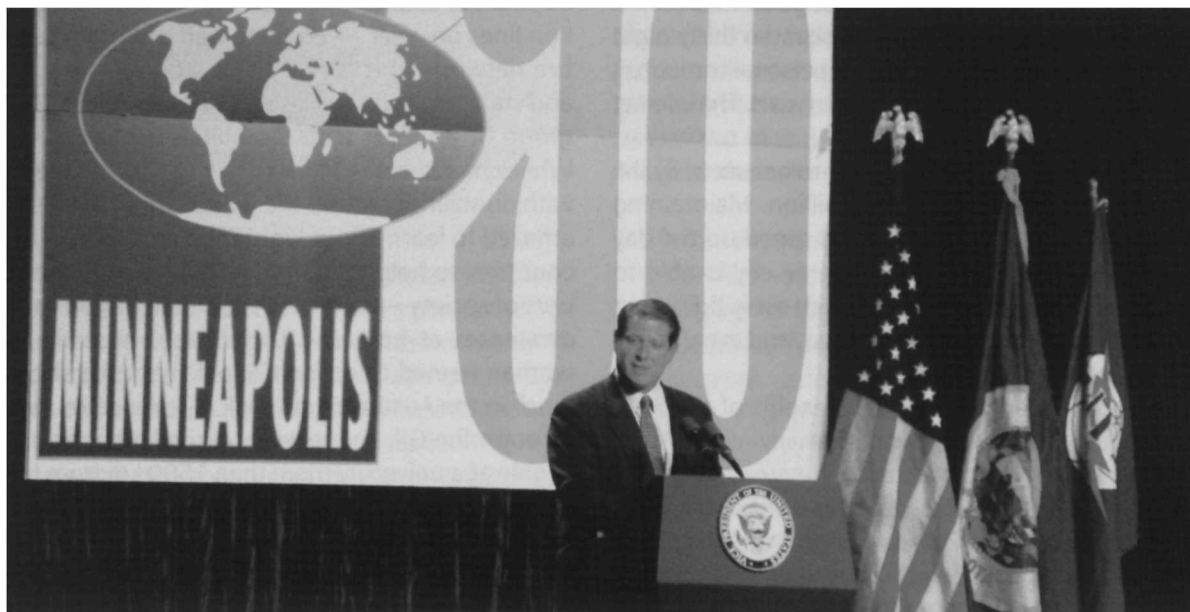
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Today, we are at the dawn of a new technology and telecommunications renaissance, one that is still in its infancy. But perhaps the greatest promise of this electronic and digital age lies not in what is *new*, but in the values that are *renewed*.

As each breathtaking new development brings us closer together in communication, and in common cause — building a true global electronic village — we have chance to spread a new prosperity, a new literacy, a new love of freedom and democracy — and even a new sense of community to the farthest regions of the world.

That is why, four years ago, I set forth five principles that I believe are essential to reap the full harvest of the global information infrastructure [GII]. Those five principles were: private investment, competition, open access, flexible regulatory framework, and universal service. These are not just common principles, but common values we all need to strengthen. I am heartened to report enormous progress on all five.

■ First, we have encouraged private investment, because private investment is the lifeblood of innovation. Today, we see the results — over USD 600 billion of private capital has been invested in telecommunications since 1994. More than 48 telecom operators have been privatized. I invite any remaining doubters to go back to Buenos Aires and ask Argentina how well privatization works — just since we met there they have gone from 4 million telephone lines to more than 18 million. Not only is their priva-



Al Gore posing five challenges

Photo: A. de Ferron (ITU 980112)

tized system more efficient and more profitable — it is bringing an entire generation of Argentinians closer together.

■ Second, we have promoted competition, because competition leads to innovation, better services, and better prices for consumers. In 1994, only seven countries had competitive markets for basic voice service. Today, 47 countries either have full competition or are committed to it. One of those is South Africa, which last year decided to license a second cellular operator. And in just one year, the number of subscribers jumped from 40 000 to 340 000.

Here in the United States, we have also taken broad steps to promote competition as well. Since 1996, when we signed a landmark telecommunications law that advances all five principles, the birth of dozens of new competitors has raised USD 20 billion to invest in advanced communications, and created over 50 000 jobs. Now, we need competition between fibre-optic cables around the globe, especially with the stunning expansion of broadband capacity. The bottom line is: competition works if we let it.

■ Third, we have made open access a priority, because open access guarantees that every user of the GII will be able to reach thousands of different sources of information from every country, in every language. Today, the Internet is turning that goal into a reality. Here in the United States, it took radio thirty-eight years to reach 50 million people, personal computers sixteen years, and television thirteen years. The Internet took only four years.

Today, there are 100 million Internet users. By the year 2000, there will be 320 million. Maintaining open access means that we will speed up the day when every child in any village or city is able to reach across a keyboard and reach every book ever written, every song ever composed, and every painting ever painted.

We have seen the dramatic benefits of open access to the telephone network. Similarly, as new technologies emerge, open access will increase competition and deliver great benefits to users and service providers alike. The ITU's role in setting standards is crucial to this goal.

Experience has shown that competition among multiple standards is the best way to meet users'

diverse needs — as long as each individual standard is designed to increase, and not reduce the potential for interoperability.

■ Fourth, we have worked towards a flexible regulatory framework, because it promotes competition and investment while protecting consumers. A growing list of nations agree: over the past four years, 18 independent regulatory agencies have been established in the Americas, 17 in Africa, and 11 in the Asia-Pacific Region. I was pleased to see 58 nations recently commit to the World Trade Organization's Reference Paper on Regulatory Principles. I want to commend one of them — OSIPTEL [*Organismo Supervisor de Inversión Privada en Telecomunicaciones*] of Peru — which recently moved to promote competition by ending *Telefónica's* monopoly one year ahead of schedule.

■ Fifth, we have promoted universal service to basic telecommunication services, because the ability to pick up a phone or hook up a computer and have instant access to your village, your nation and your world is one of the most liberating and empowering forces in human history, and it should be available to all people.

Since 1994, the principle of universal access has led to more than 200 million phone lines being added. For example, China is installing 14.5 million lines per year — equal to half of Britain's entire network. This is not just a story of numbers and statistics, but families and faces. In Thailand, a group of students with disabilities use the Flying Wheelchair Bulletin Board to talk to other students with disabilities around the world. They have been amazed to learn about legislation passed in other countries to help the disabled become full members of society — and now they are trying to raise awareness at home. In Longbeach, Australia, a woman named Christine Chapel lives on a sheep ranch in the Australian outback. By telecommuting through the GII, she recently earned a bachelor's degree at a university more than 1500 km from her home.

Thanks to the work we set in motion four years ago, the structure for the global information infrastructure is largely in place. The information superhighways of many nations are beginning to take

shape. Now, more than ever before, we must all decide where they will lead.

My message to you is simple: today, on the eve of a new century and a new millennium, we have an unprecedented opportunity to use these powerful new forces of technology to advance our oldest and most cherished values. We have a chance to extend knowledge and prosperity to our most isolated inner cities, to the barrios, the favelas, the colonias and our most remote rural villages; to bring 21st century learning and communication to places that do not even have phone service today; to share specialized medical technology where there are barely enough family doctors today; to strengthen democracy and freedom by putting it on-line, where it is so much harder for it to be suppressed or denied. Today, we are more connected than ever before. Now, let us use our new tools and technology to build on that interdependence — to build a stronger global community, and make real our common values.

Today, I want to pose five great challenges that still remain to be met. Together, they make up a Digital Declaration of Interdependence that can create a brighter world for us all

First, we must improve access to technology so everyone on the planet is within walking distance of voice and data telecommunication services within the next decade.

Right now, 65% of the world's households have no phone service. Half of the world's population has never made a phone call. Iceland has more Internet hosts than all of Africa. Today, I challenge the business community to create a global business plan — to put data and voice telecommunication within an hour's walk of everybody on the planet by the end of the next decade. This plan should include ways to stimulate demand. It should involve local business. It should allow for access to distance learning and telemedicine. It should provide hands-on training. We know it can be done — and it must be done.

Second, we must overcome our language barriers and develop technology with real-time digital translation so anyone on the planet can talk to anyone else.

Just imagine what it would be like to pick up a phone, call anywhere in the world, and have your voice translated instantly so you could have a conversation without language being a barrier. Just imagine if the translation many of you are receiving through your earphones here today could be accomplished digitally and instantly. I can see the day when we have a true digital dialogue around the world — when a universal translator can instantly shatter the language barriers that so often hold us back in this global and information age.

Imagine also a world where computers do not need keyboards, where you can simply speak into your PC, and have every word perfectly translated and typed. Imagine how much it could reduce the cost of doing business, and increase international cooperation. Imagine if there were no barriers between basic literacy and computer literacy — where any person who can speak can operate a computer and tap into the world's information simply by speaking into a small device.

Today, I want to challenge the research community: take these discoveries and develop new technology that allows people around the world to communicate with each other, that makes international cooperation easier, and that allows people to participate in our global community without losing their linguistic and cultural heritage.

Third, we must create a Global Knowledge Network of people who are working to improve the delivery of education, health care, agricultural resources, and sustainable development — and to ensure public safety.

Just imagine what it would be like if a sick child in rural Mongolia could be linked through video-conference to the Sydney Children's Hospital. A small sensor, like a mouse, could broadcast X-rays or an MRI back to Australia. A blood sample could be put

on a slide and scanned for sickle cell anaemia. A leading doctor could prescribe treatment — and the tests would be waiting when the child arrived. Within a few short years, this technology can be in our hands.

In an age when information is everywhere, we should be able to find ways to group information by need.

Just think if every farmer in Africa could tap into a local weather channel that provides them with the information they need to plant and rotate their crops. And in natural disasters, we know that just an hour's advance warning can save thousands of lives.

Today, some of the most forward-thinking companies are using new "knowledge management" techniques that share best practices and take advantage of accumulated knowledge. Today, I issue a challenge to the education community to use these same techniques to link practitioners, experts, and non-profit organizations that are working on our most pressing social and economic needs.

For example, in the world today, five billion people do not have access to secondary and higher education. If we can create a "knowledge network" that extends distance learning around the globe, we can quadruple the number of people who have access to higher education and lifelong learning.

Fourth, we must use communications technology to ensure the free flow of ideas and support democracy and free speech.

Four years ago in Buenos Aires, I said that the GII would promote democracy and greatly increase people's participation in decision-making, by making available the information they need to express their speech freely.

Self-government is built on the assumption that each citizen should have the power to control his or her own life. More than five centuries ago, this concept was alive in Europe — but it did not become functionally possible until the printing press helped to widely spread a large body of shared civic knowledge to an informed and engaged public. Just as the printing press delivered that knowledge five hundred years ago, I believe the GII can deliver a new wave of civic knowledge — comprehensive enough to strengthen the capacity for self-government everywhere. The continu-

ing challenge to all of us — governmental and non-governmental organizations alike — is not to tell other nations what to do, or what values to pursue, but rather to empower people to recognize and act upon their own choices. We must continue to work to ensure that the GII promotes the free flow of ideas and supports democracy around the globe.

Fifth, we must use communication technology to expand economic opportunity to all families and communities around the globe.

Everyone in every part of the world should have the opportunity to succeed if they are willing to work for it.

In a remote farming village near Chincheros, Peru, life has changed more in the past two years than in the previous half century. In 1996, an Internet service provider set up a Net-link for 50 peasant families. The village leaders formed an on-line partnership with an international export company, which arranged for its vegetables to be shipped and sold in New York. Before e-mail, the village's income was about USD 300 a month. Today, it has jumped to USD 1500 a month.

Across the globe, micro-enterprise — which often starts with initial loans of as little as USD 50 — has been a path out of poverty for millions. Today, there are more than 500 million micro-entrepreneurs — like those Peruvian farmers who eke out an existence by selling their wares and service to their immediate communities. There are countless micro-entrepreneurs whose quality of life and incomes would change dramatically overnight if they had access to the same tools.

Today, I challenge the non-profit community to work with development organizations to provide more of these opportunities. These networks will create jobs and enable micro-entrepreneurs to avoid a middle-man and keep more of their profits.

Some estimate that global electronic commerce will grow to more than USD 300 billion per year in just a few years. By the year 2010, we can triple the number of people who are able to support themselves and their families because they are able to reach world markets through the Internet. It will also help give consumers access to a whole new world of goods and services.

Today, I want to announce two additional steps our government will be taking to increase opportunity and empower micro-entrepreneurs across the globe.

First, I am pleased to announce that our Peace Corps has committed to make technology and communications an increasingly important strategic tool in the work of Peace Corps volunteers.

Before Peace Corps volunteers go into the field, the Peace Corps will make sure they have the know-how to enable people to use technology to gain information, improve education, and enhance economic development. Whenever possible, the Peace Corps will also help increase access to telecommunications in the communities it serves.

Second, I am proud to announce that USAID [United States Agency for International Development] will lead a new initiative to promote Internet access and electronic commerce for development in eight countries.

This initiative will go hand-in-hand with legal and regulatory reforms aimed at liberalization and universal access, to stimulate new businesses through electronic commerce, and demonstrate applications in democracy and governance, economic growth, environment, education, and medical assistance. This initiative will build on the Leland initiative, a USD 15 million effort to provide 21 African countries with support for Internet connections.

This is our Digital Declaration of Interdependence — five challenges that can strengthen our global community for the 21st century.

Before I conclude, I want to say a special word about how we must work together to avoid the Year 2000 computer problem — which could stall much of our progress in international telecommunications if we do not mount a major, worldwide, public and private crusade to fix it. Today, we potentially have hundreds of millions of computers and devices that literally cannot read the year “2000”. This means that when the clock strikes midnight at the dawn of 1 January 2000, everything from air traffic control to

water systems, heart monitors to nuclear power plants could be affected.

Here in the United States, we have a major effort under way to cope with the challenge. Within the White House, we are pursuing a top-priority, high-level initiative to make sure our national government is prepared. But in an era of global interdependence, there is a shared global responsibility to meet the challenge.

And I say to every single company, and every single nation, that has benefited from global trade and global telecommunications: just as you have shared the benefits of this global and information age, you have an obligation to help shoulder this critical burden.

All of our economies will be hurt if the Year 2000 problem is not solved in time. One weak link in the system will weaken us all. I appreciate the work being done by our Federal Communications Commission and the ITU on this issue — but we have more work to do. Let us meet the Year 2000 challenge together, so we can begin the 21st century with confidence, and without computer problems. Our ambassadors are ready to work with you and provide any technical assistance you need. Together, we must solve this problem.

Throughout this millennium, the story of human achievement has been a story of wonder, a story of discovery, a story of imagination, but also of a story of courage — to try new things, to believe in what we cannot see, and to boldly follow wherever the road may take us.

Today, that road of discovery is a highway of light and speed to connect the largest city to the smallest village across the globe. In a world once limited by borders and geography, the only limits we face today are the borders of our imagination. More than any other time in our history, the promise of new discovery and new technology has made it possible to renew and strengthen our oldest and most cherished values.

As we move into a new century and a new millennium, let us take that same sense of wonder, that same sense of discovery, and that same sense of courage to make real the values that centuries of human experience have aspired to create — to end suffering, to eradicate disease, to promote freedom, to educate our children, and to lift our families and our nations up.

We do not have a moment to waste. Because our children and our world are waiting. ■