INTERNATIONAL TELECOMMUNICATION UNION

**WORLD TELECOMMUNICATION
DEVELOPMENT CONFERENCE**

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INAUGURATION OF THE FIRST
WORLD TELECOMMUNICATION DEVELOPMENT
CONFERENCE (WTDC-94)

Remarks prepared for delivery by

*Mr. Al Gore
U.S. Vice President*

I have come here, 8,000 kilometres from my home, to ask you to help create a Global Information Infrastructure. To explain why, I want to begin by reading you something that I first read in high school, 30 years ago.

"By means of electricity, the world of matter has become a great nerve, vibrating thousands of miles in a breathless point of time .... The round globe is a vast .... brain, instinct with intelligence!"

This was not the observation of a physicist - or a neurologist. Instead, these visionary words were written in 1851 by Nathaniel Hawthorne, one of my country's greatest writers, who was inspired by the development of the telegraph. Much as Jules Verne foresaw submarines and moon landings, Hawthorne foresaw what we are now poised to bring into being.

The ITU was created only 14 years later, in major part for the purpose of fostering an internationally compatible system of telegraphy.

For almost 150 years, people have aspired to fulfil Hawthorne's vision - to wrap nerves of communications around the globe, linking all human knowledge.

In this decade, at this Conference, we now have at hand the technological breakthroughs and economic means to bring all the communities of the world together.

We now can at last create a planetary information network that transmits messages and images with the speed of light from the largest city to the smallest village on every continent.

I am very proud to have the opportunity to address the first Development Conference of the ITU because the President of the United States and I believe that an essential prerequisite to sustainable development, for all members of the human family, is the creation of this network of networks. To accomplish this purpose, legislators, regulators, and business people must do this: build and operate a Global Information Infrastructure (GII). This GII will circle the globe with information superhighways on which all people can travel.

These highways - or, more accurately, networks of distributed intelligence - will allow us to share information, to connect, and to communicate as a global community. From these connections we will derive robust and sustainable economic progress, strong democracies, better solutions to global and local environmental challenges, improved health care, and - ultimately - a greater sense of shared stewardship of our small planet.

The Global Information Infrastructure will help educate our children and allow us to exchange ideas in, within a community, and among nations. It will be a means by which families and friends will transcend the barriers of time and distance. It will make possible a global information marketplace, where consumers can buy or sell products.

I ask you, the delegates to this Conference, to set an ambitious agenda that will help all governments, in their own sovereign nations and in international cooperation, to build this Global Information Infrastructure. For my country's part, I pledge our vigorous, continued participation in achieving this goal - in the Development Sector of the ITU, in other Sectors and in Plenipotentiary gatherings of the ITU, and in bilateral discussions held by our Departments of State and Commerce and our Federal Communications Commission.

The development of the GII must be a cooperative effort among governments and people. It cannot be dictated or built by a single country. It must be a democratic effort.

And the distributed intelligence of the GII will spread participatory democracy.

To illustrate why, I'd like to use an example from computer science.

In the past, all computers were huge mainframes with a single processing unit, solving problems in sequence, one by one, each bit of information sent back and forth between the CPU and the vast field of memory surrounding it. Now, we have massively parallel computers with hundreds - or thousands - of tiny self-contained processors distributed throughout the memory field, all interconnected, and together far more powerful and more versatile than even the most sophisticated single processor, because they each solve a tiny piece of the problem simultaneously and when all the pieces are assembled, the problem is solved.

Similarly, the GII will be an assemblage of local, national, and regional networks, that are not only like parallel computers but in their most advanced state will in fact be a distributed, parallel computer.

In a sense, the GII will be a metaphor for democracy itself. Representative democracy does not work with an all-powerful central government, arrogating all decisions to itself. That is why communism collapsed.

Instead, representative democracy relies on the assumption that the best way for a nation to make its political decisions is for each citizen - the human equivalent of the self-contained processor - to have the power to control his or her own life.

To do that, people must have available the information they need. And be allowed to express their conclusions in free speech and in votes that are combined with those of millions of others. That's what guides the system as a whole.

The GII will not only be a metaphor for a functioning democracy, it will in fact promote the functioning of democracy by greatly enhancing the participation of citizens in decision-making. And it will greatly promote the ability of nations to cooperate with each other. I see a new Athenian Age of democracy forged in the fora the GII will create.

The GII will be the key to economic growth for national and international economies. For us the United States, the information infrastructure already is to the U.S. economy of the 1990s what transport infrastructure was to the economy of the mid-20th century.

The integration of computing and information networks into the economy makes U.S. manufacturing companies more productive, more competitive, and more adaptive to changing conditions and it will do the same for the economies of other nations.

These same technologies are also enabling the service sectors of the U.S. economy to grow, to increase their scale and productivity and expand their range of product offerings and ability to respond to customer demands.

Approximately 60% of all U.S. workers are "knowledge workers" - people whose jobs depend on the information they generate and receive over our information infrastructure. As we create new jobs, 8 out of 10 are in information-intensive sectors of our economy. And these new jobs are well-paying jobs for financial analysts, computer programmers and other educated workers.

The global economy also will be driven by the growth of the Information Age. Hundreds of billions of dollars can be added to world growth if we commit to the GII. I fervently hope this Conference will take full advantage of this potential for economic growth, and not deny any country or community its right to participate in this growth.

As the GII spreads, more and more people realize that information is a treasure that must be shared to be valuable. When two people communicate, they each can be enriched - and unlike traditional resources, the more you share, the more you have. As Thomas Jefferson said, "He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me."

Now we all realize that, even as we meet here, the Global Information Infrastructure is being built, although many countries have yet to see any benefits.

Digital telecommunications technology, fiber optics, and new high-capacity satellite systems are transforming telecommunications.

And all over the world, under the seas and along the roads, pipelines, and railraids, companies are laying fiber optic cable that carries thousands of telephone calls per second over a single strand of glass.

These developments are greatly reducing the cost of building the GII.

In the past, it could take years to build a network. Linking a single country's major cities might require laying thousands of kilometres of expensive wires. Today, a single satellite and a few dozen ground stations can be installed in a few months - at much lower cost.

The economics of networks have changed so radically that the operation of a competitive, private market can build much of the GII. This is dependent, however, upon sensible regulation.

Within the national boundaries of the U.S., we aspire to build our information highways according to a set of principles that I outlined in January in California. The National Information Infrastructure, as we call it, will be built and maintained by the private sector.

It will consist of hundreds of different networks, run by different companies and using different technologies, all connected together in a giant "networks of networks", providing telephone and interactive digital video to almost every American.

Our plan is based on five principles:

- First, encourage private investment;
- Second, promote competition;
- Third, create a flexible regulatory framework that can keep pace with rapid technological and market changes;
- Fourth, provide open access to the network for all information providers; and
- Fifth, ensure universal service.

Are these principles unique to the United States? Hardly. Many are accepted international principles endorsed by many of you. I believe these principles can inform and aid the development of the Global Information Infrastructure and urge this Conference to incorporate them, as appropriate, into the Buenos Aires Declaration, which will be drafted this week.

Let me elaborate briefly on these principles.

First, we propose that private investment and competition be the foundation for development of the GII. In the U.S., we are in the process of opening our communications markets to all domestic private participants.

In recent years, many countries, particularly here in Latin America, have opted to privatize their state-owned telephone companies in order to obtain the benefits and incentives that drive competitive private enterprises, including innovation, increased investment, efficiency and responsiveness to market needs.

Adopting policies that allow increased private sector participation in the telecommunications sector has provided an enormous spur to telecommunications development in dozens of countries, including Argentina, Venezuela, Chile and Mexico. I urge you to follow their lead.

But privatization is not enough. Competition is needed as well. In the past, it did make sense to have telecommunications monopolies.

In many cases, the technology and the economies of scale meant it was inefficient to build more than one network. In other cases - Finland, Canada and the U.S., for example - national networks were built in the early part of this century by hundreds of small, independent phone companies and cooperatives.

Today, there are many more technology options than in the past and it is not only possible, but desirable, to have different companies running competing - but interconnected - networks, because competition is the best way to make the telecommunications sector more efficient, more innovative and more profitable as consumers make more calls and prices decline.

That is why allowing other companies to compete with AT&T, once the world's largest telephone monopoly, was so useful for the United States.

Over the last ten years, it has cut the cost of a long-distance telephone call in the U.S. more than 50%.

To promote competition and investment in global telecommunications, we need to adopt cost-based collection and accounting rates. Doing so will accelerate development of the GII.

International standards to ensure interconnection and interoperability are needed as well. National networks must connect effectively with each other to make real the simple vision of linking schools, hospitals, business and homes to a Global Information Infrastructure.

Hand in hand with the need for private investment and competition is the necessity of appropriate and flexible regulations developed by an authoritative regulatory body.

In order for the private sector to invest and for initiatives opening a market to competition to be successful, it is necessary to create a regulatory environment that fosters and protects competition and private sector investments, while at the same time protecting consumers' interests.

Without the protection of an independent regulator, a potential private investor would be hesitant to provide service in competition with the incumbent provider for fear that the incumbent's market power would not be adequately controlled.

Decisions and the basis for making them must also be made public so that consumers and potential competitors are assured that their interests are being protected.

This is why in the U.S., we have delegated significant regulatory powers to an independent agency, the Federal Communications Commission. This expert body is well-equipped to make difficult technical decisions and to monitor, in conjunction with the National Telecommunication and Information Administration and the Department of Justice, changing market conditions.

We commend this approach to you.

We need a flexible, effective system for resolution of international issues too - one that can keep up with the ever-accelerating pace of technological change.

I understand that the ITU has just gone through a major reorganization designed to increase its effectiveness. This will enable the ITU, under the able leadership of Dr. Tarjanne, to streamline its operations and redirect resources to where they are needed most. This will ensure that the ITU can adapt to future and unimaginable technologies.

Our fourth principle is open access. By this I mean that telephone and video network owners should charge non-discriminatory prices for access to their networks. This principle will guarantee every user of the GII can use thousands of different sources of information - video, programming, electronic, newspapers, computer bulletin boards - from every country, in every language.

With new technologies like direct broadcast satellites, a few networks will no longer be able to control your access to information - as long as government policies permit new entrants into the information marketplace.

Countries and companies will not be able to compete in the global economy if they cannot get access to up-to-date information, if they cannot communicate instantly with customers around the globe. Ready access to information is also essential for training the skilled workforce needed for high-tech industries.

The countries that flourish in the twenty-first century will be those that have telecommunications policies and copyright laws that provide their citizens access to a wide choice of information services.

Protecting intellectual property is absolutely essential.

The final and most important principle is to ensure universal service so that the Global Information Infrastructure is available to all members of our societies. Our goal is a kind of global conversation, in which everyone who wants can have his or her say.

We must ensure that whatever steps we take to expand our worldwide telecommunications infrastructure, we keep that goal in mind.

Although the details of universal service will vary from country to country and from service to service, several aspects of universal service apply everywhere. Access clearly includes making service available at affordable prices to persons at all income levels. It also includes making high quality service available regardless of geographic location or other restrictions such as disability.

Constellations of hundreds of satellites in low earth orbit may soon provide telephone or data services to any point on the globe. Such systems could make universal service both practical and affordable.

An equally important part of universal access is teaching consumers how to use communications effectively. That means developing easy-to-use applications for a variety of contexts, and teaching people how to use them. The most sophisticated and cost-efficient networks will be completely useless if users are unable to understand how to access and take full advantage of their offerings.

Another dimension of universal service is the recognition that marketplace economics should not be the sole determinant of the reach of the information infrastructure.

The President and I have called for positive government action in the United States to extend the NII to every classroom, library, hospital and clinic in the U.S. by the end of the century.

I want to urge that this Conference include in its agenda for action the commitment to determine how every school and library in every country can be connected to the Internet, the world's largest computer network, in order to create a Global Digital Library. Each library could maintain a server containing books and journals in electronic form, along with indexes to help users find other materials. As more and more information is stored electronically, this global library would become more and more useful.

It would allow millions of students, scholars and business people to find the information they need whether it be in Albania or Ecuador.

Private investment ... competition ... flexibility ... open access ... universal service.

In addition to urging the delegates of this Conference to adopt these principles as part of the Buenos Aires Declaration, guiding the next four years of telecommunications development, I assure you that the U.S. will be discussing in many fora, inside and outside the ITU, whether these principles might be usefully adopted by all countries.

The commitment of all nations to enforcing regulatory regimes to build the GII is vital to world development and many global social goals.

But the power of the Global Information Infrastructure will be diminished if it cannot reach large segments of the world population.

We have heard together Dr. Tarjanne's eloquent speech setting forth the challenges we face. As he points out: the 24 countries of the OECD have only 16% of the world's population. But they account for 70% of global telephone mainlines and 90% of mobile phone subscribers.

There are those who say the lack of economic development causes poor telecommunications. I believe they have it exactly backwards. A primitive telecommunications system causes poor economic development.

So we cannot be complacent about the disparity between the high and low income nations, whether in how many phones are available to people or in whether they have such new technologies as high speed computer networks or videoconferencing.

The United States delegation is devoted to working with each of you at this Conference to address the many problems that hinder development.

And there are many.

Financing is a problem in almost every country, even though telecommunications has proven itself to be an excellent investment.

Even where telecommunication has been identified as a top development priority, countries lack trained personnel and up-to-date information.

And in too many parts of the world, political unrest makes it difficult or impossible to maintain existing infrastructure, let alone lay new wire or deploy new capacity.

How can we work together to overcome these hurdles? Let me mention a few things industrialized countries can do to help.

First, we can use the Global Information Infrastructure for technical collaboration between industrialized nations and developing countries. All agencies of the U.S. government are potential sources of information and knowledge that can be shared with partners across the globe.

The Global Information Infrastructure can help development agencies link experts from every nation and enable them to solve common problems. For instance, the Pan American Health Organization has conducted hemisphere-wide teleconferences to present new methods to diagnose and prevent the spread of AIDS.

Second, multilateral institutions like the World Bank, can help nations finance the building of telecommunications infrastructure.

Third, the U.S. can help provide the technical know-how needed to deploy and use these new technologies. USAID and U.S. businesses have helped the U.S. Telecommunications Training Institute (USTTI) train more than 3500 telecommunications professionals from the developing world, including many in this room.

In the future, USTTI plans also to help business people, bankers, farmers, and others from the developing world find ways that computer networking, wireless technology, satellites, video links, and other telecommunications technology could improve their effectiveness and efficiency.

I challenge other nations, the development banks, and the UN system to create similar training opportunities.

The head of our Peace Corps, Carol Bellamy, intends to use Peace Corps volunteers both to help deploy telecommunications and computer systems and to find innovative uses for them.

Here in Argentina, a Peace Corps volunteer is doing just that.

To join the GII to the effort to protect and preserve the global environment, our Administration will soon propose using satellite and personal communication technology to create a global network of environmental information. We will propose using the schools and students of the world to gather and study environmental information on a daily basis and communicate that data to the world through television.

But regulatory reform must accompany this technical assistance and financial aid for it to work. This requires top-level leadership and commitment - commitment to foster investment in telecommunications and commitment to adopt policies that ensure the rapid deployment and widespread use of the information infrastructure.

I opened by quoting Nathaniel Hawthorne, inspired by Samuel Morse's invention of the telegraph.

Morse was also a famous portrait artist in the U.S. - his portrait of President James Monroe hangs today in the White House. While Morse was working on a portrait of General Lafayette in Washington, his wife, who lived about 500 kilometres away, grew ill and died. But it took seven days for the news to reach him.

In his grief and remorse, he began to wonder if it were possible to erase barriers of time and space, so that no-one would be unable to reach a loved one in time of need. Pursuing this thought, he came to discover how to use electricity to convey messages, and so he invented the telegraph and, indirectly, the ITU.

The Global Information Infrastructure offers instant communication to the great human family.

It can provide us the information we need to dramatically improve the quality of their lives. By linking clinics and hospitals together, it will ensure that doctors treating patients have access to the best possible information on diseases and treatments. By providing early warning on natural disasters like volcanic eruptions, tsunamis, or typhoons, it can save the lives of thousands of people.

By linking villages and towns, it can help people organize and work together to solve local and regional problems ranging from improving water supplies to preventing deforestation.

To promote; to protect; to preserve freedom and democracy, we must make telecommunications development an integral part of every nation's development. Each link we create strengthens the bonds of liberty and democracy around the world. By opening markets to stimulate the development of the global information infrastructure, we open lines of communication.

By opening lines of communication, we open minds. This summer, from my country cameras will bring the World Cup championship to well over one billion people.

To those of you from the 23 visiting countries whose teams are in the finals, I wish you luck - although I'll be rooting for the home team.

The Global Information Infrastructure carries implications even more important than soccer.

It has brought us images of earthquakes in California, of Boris Yeltsin on a tank in Red Square, of the effects of mortar shells in Sarajevo and Somalia, of the fall of the Berlin Wall. It has brought us images of war and peace, and tragedy and joy, in which we all can share.

There's a Dutch relief worker, Wam Kat, who has been broadcasting an electronic diary from Zagreb, for more than a year and a half on the Internet, sharing his observations of life in Croatia.

After reading Kat's Croatian diary, people around the world began to send money for relief efforts. The result: 25 houses have been rebuilt in a town destroyed by war.

Governments didn't do this. People did. But such events are the hope of the future.

When I began proposing the NII in the U.S., I said that my hope is that the United States, born in revolution, can lead the way to this new, peaceful revolution. However, I believe we will reach our goal faster and with greater certainty if we walk down that path together. As Antonio Machado, Spanish poet, once said, "Pathwalker, there is no path, we create the path as we walk."

Let us build a global community in which the people of neighbouring countries view each other not as potential enemies, but as potential partners, as members of the same family in the vast, increasingly interconnected human family.

Let us seize this moment.

Let us work to link the people of the world.

Let us create this new path as we walk it together.

Definition of WTDC in the Abbreviations.com acronyms and abbreviations directory. Â This page is about the meanings of the acronym/abbreviation/shorthand WTDC in the Community field in general and in the Development terminology in particular. World Telecommunication Development Conferences. Community Â» Development. Add to My List. Edit this Entry. Rate it: (1.00 / 1 vote). Translation. Find a translation for World Telecommunication Development Conferences in other languages: Select another language WTDC-94. World Telecommunication Development Conference (Buenos Aires, 1994). 21 - 29 March 1994 - Buenos Aires, Argentina. The World Telecommunication Development Conference held in Buenos Aires in 1994 was the first WTDC held since the establishment of ITUâ€™s Telecommunication Development Sector in 1992. The purpose of the conference was to review the progress made in telecommunication development since the publication of â€œThe Missing Linkâ€ and to set goals and objectives that would address the serious imbalance in world telecommunications development. The Buenos Aires Declaration and Action Applied Linguistics Conferences 2021/2022/2023 is an indexed listing of upcoming meetings, seminars, congresses, workshops, programs, continuing CME courses, trainings, summits, and weekly, annual or monthly symposiums. Â Applied Linguistics conference listings are indexed in scientific databases like Google Scholar, Semantic Scholar, Zenedo, OpenAIRE, EBSCO, BASE, WorldCAT, Sherpa/RoMEO, Compendex, Elsevier, Scopus, Thomson Reuters (Web of Science), RCSI Library, UGC Approved Journals, ACM, CAS, ACTA, CASSI, ISI, SCI, ESCI, SCIE, Springer, Wiley, Taylor Francis, and The Science Citation Index (SCI). Â Aviation Engineering (94). Avionics (355). Axioms (12).