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Series/Staff Member: Gene Sperling
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OA/ID Number: 20706
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Folder Title:
DIGITAL DIVIDE 4/2000 [8]

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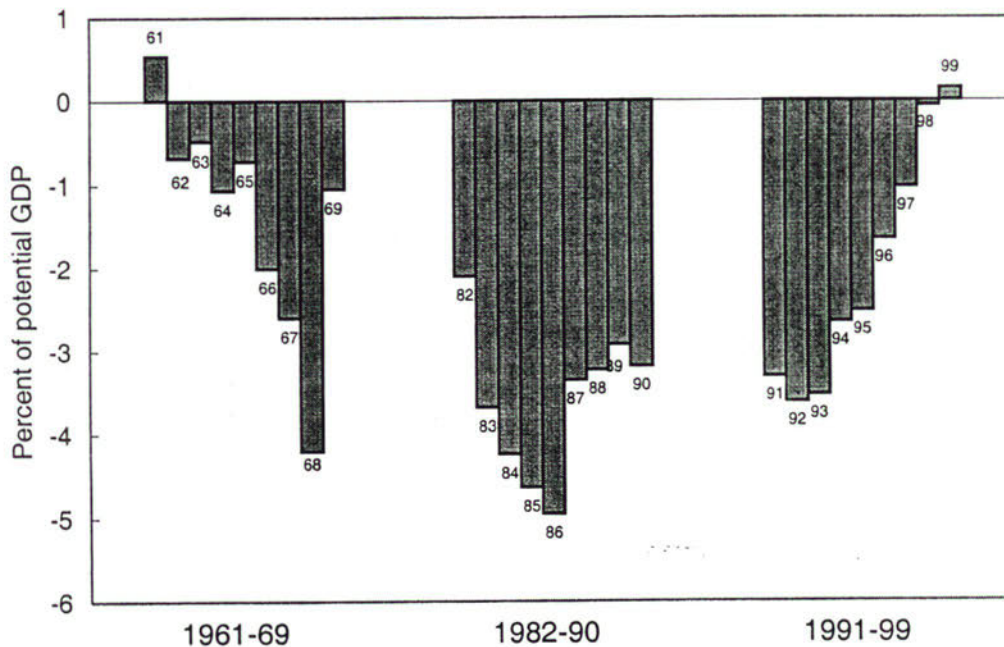
WEEKLY ECONOMIC BRIEFING OF THE PRESIDENT OF THE UNITED STATES

Prepared by the Council of Economic Advisers
with the assistance of the Office of the Vice President

January 14, 2000

CHART OF THE WEEK

The Structural Budget Balance in Three Long Expansions



The structural budget balance has moved steadily from deficit to surplus over the last 7 years of this expansion. In the 1961-69 expansion, by contrast, the structural deficit grew larger until the 1968 tax increase; and the structural deficit was large throughout the 1982-90 expansion. (The structural deficit reflects adjustments to the deficit to remove cyclical and temporary factors; it measures what the deficit would be at full employment.) A Special Analysis in this Briefing discusses other indicators of fiscal restraint in this expansion.

SPECIAL ANALYSIS

Fiscal Discipline and Economic Growth

As shown in the Chart of the Week, the decline in the structural budget deficit in this expansion has been unusual compared with what happened in the other two long expansions. This reflects an unusual decline in federal expenditures relative to GDP.

Contributions to growth. Growth in GDP can be disaggregated into the contributions of the major demand components: consumption, investment, government purchases, and net exports. In this expansion, the proportion of

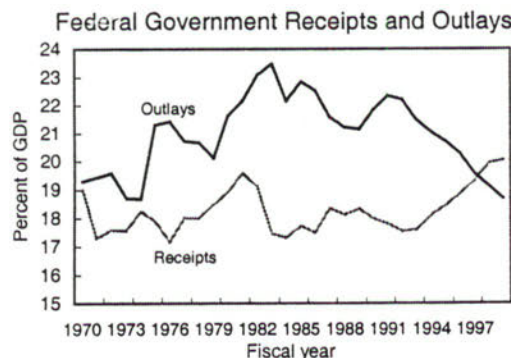
Contributions to Economic Growth in Expansions



growth represented by consumption (the largest component of GDP) has been a little higher than in the other long expansions and the negative contribution of net exports has been larger (see upper chart). The difference that reflects fiscal discipline, however, is the relatively small contribution from government and the relatively large contribution from private fixed investment. Moreover,

the modest contribution of government is entirely accounted for by growth in state and local spending: federal purchases of goods and services were smaller in 1999 than they were in 1991 after adjusting for inflation.

Federal expenditures and revenues. Total federal expenditures, which include Social Security and other transfers in addition to purchases of goods and services,



fell from 22.3 percent of GDP in 1991 to 19.0 percent in 1999 (see lower chart). This decline of 3.3 percentage points is more than twice the decline of 1.3 percentage points during the 1982-90 expansion. Moreover, the decline in spending in the 1980s was associated with a decline in revenues (as a share of GDP), whereas the decline in the current expansion occurred during a period of rising revenues. This

contradicts the view that increases in government revenue simply invite a corresponding increase in spending.

Analysis. Budget deficits can be useful in stimulating the economy when private demand is weak. And arguably they served that role in the early stages of the 1960s and 1980s expansions. However, fiscal restraint was applied too late to prevent a sharp rise in inflation later in the 1960s expansion. It was never a

feature of the 1980s expansion, and the combination of loose fiscal policy and tight monetary policy was associated with relatively high real interest rates and declining saving and investment. In the current expansion, by contrast, fiscal discipline has allowed monetary policy to accommodate strong growth with low inflation. Interest rates have been lower than they would have been without fiscal discipline, and investment has flourished.

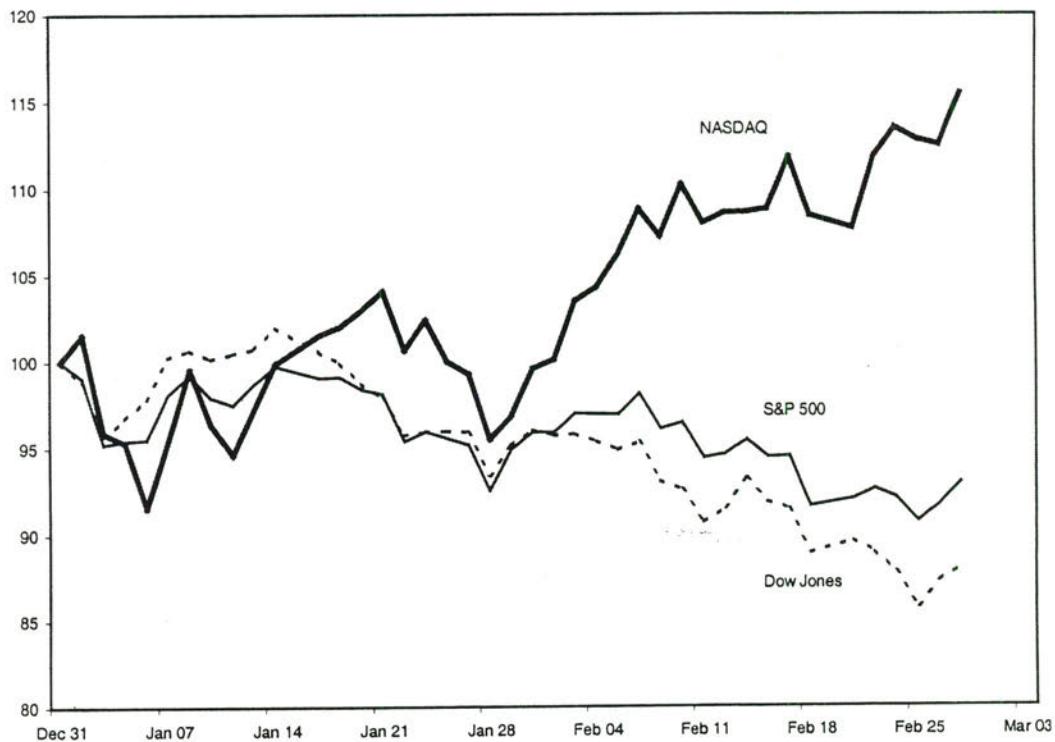
WEEKLY ECONOMIC BRIEFING OF THE PRESIDENT OF THE UNITED STATES

Prepared by the Council of Economic Advisers
with the assistance of the Office of the Vice President

March 3, 2000

CHART OF THE WEEK

A Tale of Two Stock Markets



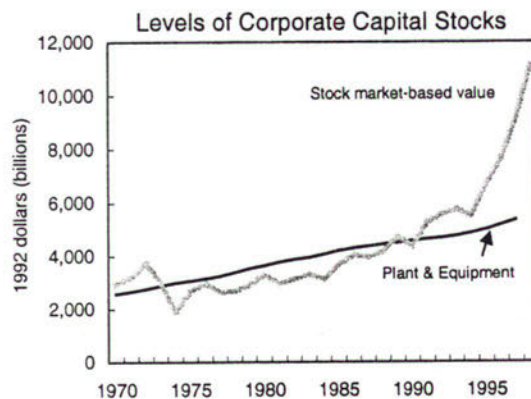
Thus far in 2000, the NASDAQ stock market index has risen another 15 percent (after an increase of xx percent in 1999). The less technology-stock-heavy Standard and Poor's 500 and Dow Jones Industrial indexes, by contrast have fallen in value.

SPECIAL ANALYSIS

Intangible Capital and the Stock Market

Recent research based on stock market valuations suggests that over the last decade U.S. businesses have accumulated large quantities of intangible capital that raise productive capacity but are not accounted for in standard measures of the capital stock. Intangible capital includes the value of intellectual property, organizational structure, management expertise, and past investments in job training. According to a measure of capital based on stock market valuation, growth in the total capital stock including intangible capital has been more rapid than that in plant and equipment alone. Such rapid growth in the capital stock would imply faster trend labor productivity growth than one would expect based on the more limited measure of capital. However, the stock market-based method of measuring business capital has yet to be the subject of careful study and remains controversial.

The stock market as a measuring stick. The premise of this research is that the stock market accurately measures the true productive capacity of businesses, and therefore provides a better yardstick for capital accumulation than standard measures based on past investments in plant and equipment. Economic theory argues that, at least over longer periods of time, the market value of a business should equal its replacement cost—including the cost of replacing its intangible capital. One implication of this theory is that the doubling of the stock market value of nonfinancial corporate businesses over 1990-1997 implies an equally large increase in their productive capital stock, well above



the 17 percent increase based on investments in plant and equipment alone (see chart). If total capital accumulation has in fact been faster than previously thought, this should have a positive effect on labor trend productivity growth.

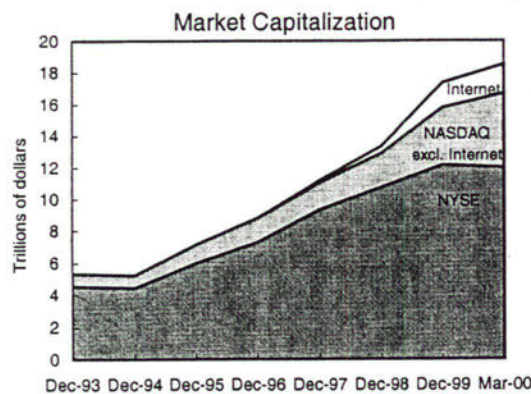
Intangible capital and the IT revolution. Why might the stock of intangible capital have grown so rapidly in the 1990s? A number of explanations have been put forward. One is that businesses have intensified efforts at increasing efficiency and productivity. A second is that the explosion in information technologies has led to a surge in investment in intangible capital—including investments in computer software (not currently counted as business capital), the creation of new products and services, and the redesign of production processes and management strategies. In this view, businesses have invested considerable resources in order to take advantage of the opportunities provided by the IT revolution. Investors perceive that these investments will pay off and this is

ARTICLE

The Changing Stock Market and the Economy

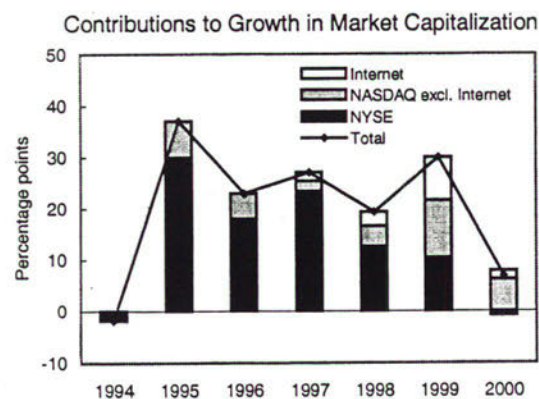
Over the past 2 years, increases in stock market wealth have come disproportionately from technology and Internet stocks. It remains an open question, however, whether this has made the market more or less vulnerable to shocks or corrections and how the market will respond if interest rates keep rising.

Market capitalization. Stocks listed on either the New York Stock Exchange (NYSE) or the NASDAQ account for almost all of the market capitalization of U.S.-listed stocks. At the end of 1994, NYSE stocks had a market capitalization of about \$4.4 trillion, with NASDAQ stocks adding another \$0.8 trillion (see



upper chart). In 1995-97, the market capitalization of each approximately doubled. Since 1998, however, the market capitalization of NASDAQ stocks generally and Internet stocks in particular have grown much faster than that of NYSE stocks. (Internet stocks are treated in the chart as a subset of NASDAQ stocks, because AOL is the only significant non-NASDAQ Internet stock). With a market capitalization of about \$1.9 trillion (up from less than \$0.2 trillion in December 1997), Internet stocks now represent about 10 percent of the combined NASDAQ and NYSE market capitalization of roughly \$19 trillion. The share of NYSE stocks has fallen from 85 percent in December 1994 to 65 percent today.

Patterns of growth. With their larger initial market capitalization and roughly balanced growth across the two exchanges, NYSE stocks accounted for the bulk



of the increase in stock market wealth in 1995-97 (see lower chart). By 1999, however, the bulk of the increase came from NASDAQ stocks. Looking at technology stocks more generally, almost half of the growth in the market capitalization of the Standard and Poor's 500 stocks (from about \$4.6 trillion in 1995 to \$11.5 trillion today) came from technology stocks, which now account for roughly a third of the S&P 500's market capitalization.

Is there froth? Although the stock market is at very high levels based on historical values of measures such as price-earnings ratios, no one can be certain that it is fundamentally overvalued. But suppose Internet stocks were to lose half

their value. This would reduce stock market wealth by about \$1 trillion. Based on the "wealth effect" rule of thumb that each dollar change in stock market wealth translates into a permanent change in consumption of about 3½ cents, this would cut consumption by about \$35 billion, and knock perhaps a third to a half percentage point off GDP once investment and other effects were taken into account. Any assessment of how the overall market would react to such a sharp decline in Internet stocks is highly speculative. At times this year, investors have acted as though they regard technology and blue chip stocks as substitutes—when the NASDAQ falls the Dow goes up and vice versa. This would imply that a correction focusing on Internet stocks would not have a negative effect on the rest of the market and might even be offset by rallies elsewhere. But at other times, stocks have tended to move together suggesting that a decline could spread.

Interest rates and stock prices. Economic theory suggests that the value of a stock varies directly with the company's earnings prospects but inversely with interest rates (because the present value of future profits goes down when interest rates rise). This would suggest that higher interest rates would cause the prices of Internet stocks to go down since most of their expected profits are in the future. Nevertheless, fluctuations in the price of Internet stocks (and technology stocks generally) may be more sensitive to changing expectations about future profits than about changes in interest rates in the short run. Higher interest rates (particularly in the context of tighter monetary policy and slower growth) might, however, have a depressing effect on "old economy" stocks to the extent that real near-term profits are expected to go down.

What is the Fed up to? These considerations suggest that tightening monetary policy might affect spending through a stock market effect. However, any concern that the Federal Reserve is conducting monetary policy with an eye to cooling off the stock market appears to be misplaced. Rather, the Fed seems to be conducting monetary policy the old-fashioned way. Recent tightening seems motivated by a general concern that demand is growing faster than potential supply, threatening a buildup of inflationary pressures. Higher interest rates might or might not affect stock prices, but they would likely have the usual effects of slowing housing and other interest-sensitive spending. As these sectors slowed, the impact would then spread more widely.

Conclusion. Increases in stock market wealth, which recently have come disproportionately from technology and Internet stocks, are one factor that has fostered the ongoing strong growth in spending that the Fed is now trying to slow. But the Fed does not appear to be targeting the stock market per se, and it certainly is not trying to discourage the acceleration in productivity and future growth in potential supply that is probably an important factor contributing to the rise in stock prices.

Digital Divide

Le Secrétaire général adjoint
The Deputy Secretary-General

SSC(00)123

24 November 2000

Dear Colleagues, members of the *dot force*,

The OECD will organise the Emerging Market Economy Forum (EMEF) on Electronic Commerce on 16-17 January 2001. This event will take place in Dubai, U.A.E. and will be hosted by the Government of Dubai. It will be preceded, on 15 January, by two meetings organised in parallel by the business sector (the "Business-Government Forum") and a group of concerned civil society organisations (the "Public Voice Conference") respectively. Full information regarding these events is available on the OECD web site. You can access it through the OECD home page <http://www.oecd.org/>. The direct URL is http://www.oecd.org/dsti/sti/it/ec/act/dubai_ec/index.htm. The web site is updated every week.

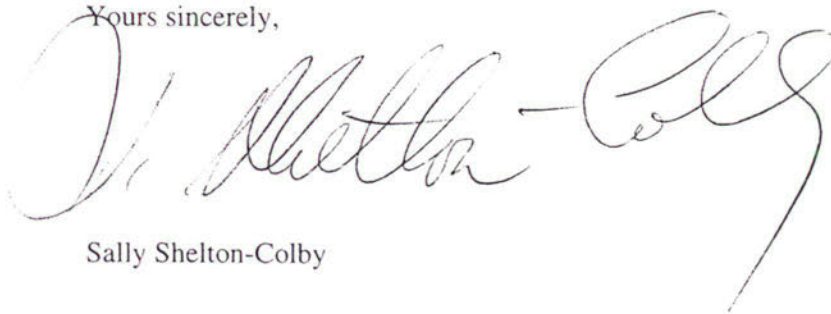
I have the honour of inviting all members of the *dot force* to participate in the event. The Secretariat of the OECD has consulted with the staff of the World Bank and UNDP serving the *dot force* in shaping the agenda and discussion schedules in order to give attention to the issues of major concern to the *dot force* and the Okinawa Charter, taking into account the outcome of your deliberations at your inaugural meeting in Tokyo 27-28 November. In addition, the Dubai authorities have undertaken to provide a separate meeting facility for the *dot force* in the wings of the OECD event, should the *dot force*, or some sub-group, wish to pursue its work on that occasion.

Participants are responsible for covering their own costs of travel and accommodation. The infoDev Conference Scholarship Fund provides assistance to participants from developing countries attending conferences on IT and has informed the OECD that they will grant a limited sum for the Dubai event, with preference given to the lower-income countries.

Further information: john.dryden@oecd.org or asako.takahashi@oecd.org.

I look forward to the participation of as many of you as possible in Dubai.

Yours sincerely,



Sally Shelton-Colby

About the EMEF

The EMEF on Electronic Commerce is part of the programme of work of the OECD Centre for Co-operation with Non-members (CCNM). It is the latest in the series of major international dialogues sponsored by the OECD on the development of policy approaches to the networked world of electronic commerce and the first to be hosted outside its own Member countries. It is expected that among the issues discussed will be the first broad-based examination by all major stakeholders of policy strategies related to the digital divide in the context of the global policy environment of electronic commerce and the digital economy. The previous fora have been held in Turku, Finland in 1997, at Ministerial level in Ottawa, Canada in 1998 and in Paris in 1999.

Most of the participants at the Forum will be at a senior working level. In addition to assessing progress accomplished and outstanding tasks since the Ottawa Conference and the Paris Forum, it will broaden the dialogue between the stakeholders in the global digital economy by bringing together participants from a larger number of non-member economies (NMEs) and from OECD governments, business, non-governmental organisations and international bodies. It will provide an opportunity to discuss their needs, aspirations and perceptions of the remaining barriers standing in the way of creating a favourable environment for the development of electronic commerce that is truly global.

OECD AND THE DIGITAL DIVIDE: A SOURCE OF EXPERTISE FOR THE DOT FORCE

OECD

- Has expertise in the area of information and communications technology (ICT) to be drawn upon depending on the needs and priorities of the Dot Force.
- Is ready to share with countries outside the Organisation the experience and expertise we have gained within OECD countries in analysing policies and formulating guidelines, recommendations and principles.
- Is making “digital divide - digital opportunities” one of the principal themes of OECD’s Emerging Market Economies Forum on Electronic Commerce in Dubai on 15-17 January 2001. Many of the problems raised by G8 leaders at Okinawa will be addressed, and a large number of non-OECD countries will be invited. OECD and the Dubai authorities are preparing for a possible meeting of the dot force in the margins of this Conference.

I. Important Elements for Bridging the Digital Divide:

OECD identifies the following as elements of an overall policy framework to enable developing countries to take advantage of digital opportunities:

- Awareness of the importance of the issue at the level of policy-makers.
- Appropriate macroeconomic and structural policies, including a stable fiscal and commercial framework.
- Appropriate telecommunications policies.
- Efficient ICT infrastructure.

Developing countries can take advantage of technological advances, often leapfrogging earlier generations of technology (e.g. digital rather than analogue telecommunications).

- Efficient transport infrastructure (to take advantage of e-commerce possibilities).
- Flexible labour markets and human capital building strategies.
- Entrepreneur-friendly policies to favour ICT investment and promotion.

Liberalisation of regulation required for improved market access and to promote competition. Liberalisation of investment regimes can encourage foreign investment in telecommunications and Internet sectors.

- Development of ICT skills and education for providers and users.

Technical skills are especially important for programmers/web designers as, without sufficient local language content, the Web will remain of limited use.

II. OECD expertise: Member countries' experiences

OECD can offer considerable off-the-shelf experience and analytic capacity that have been developed in the following policy areas of our Member countries:

i. Access to infrastructure and telecommunications

- Market competition policies to deregulate domestic and international service markets (i.e. competition for fixed and mobile telephony, provision of broadband services, Internet access and pricing policies, etc).
- Economic studies of telecommunications markets, services and regulatory approaches;

ii. Building trust in the digital economy: consumer/user legal and operational frameworks

- Codes of conduct, legislation, and voluntary agreement packages to protect online transactions and customers;
- Development of codes of conduct for privacy protection online;
- Development of online mechanisms for the resolution of disputes in cyberspace;
- Development of co-operative government private sector mechanisms to securing networks from cybercrime (revision of the security guidelines);

iii. A Stable Regulatory framework for taxation and commercial practices

- Taxation (development of agreed taxation principles for electronic commerce);
- Certification and authentication technologies - recommendations for interoperable authentication and certification mechanisms/technologies;

iv. Government actions to promote an entrepreneurial friendly environment

- Development of best practices on the uptake of digital technologies to render government more efficient, including enhanced e-government information and services for citizens
- Development of best practice government policies for encouraging market entry and development of small IT based and Internet firms.

v. IT and skills: Education practices and the development of IT related skills

- Development of best practice policy approaches by OECD governments to encourage the continuous updating of necessary IT skills (new educational institutional arrangements, life-long learning)

vi. Collection, Harmonisation and analysis of primary data

- Development of statistical methodology and indicators for the development and impacts of the digital economy
- Update of analytical tools and methods.
- Development of new approaches to productive and growth analysis.

III. The Role of the Development Assistance Committee (DAC) and the Development Centre: Translation of this Expertise into Policy Recommendations for Developing Countries

Building on this body of OECD work, the Development Co-operation Directorate (DCD) and the Development Centre (DEV) have the capacity to synthesise and analyse the experiences of OECD Member countries, and to adapt these into policy options suitable for non-member countries.

The **Development Assistance Committee (DAC)** brings together the major bilateral donors to increase the effectiveness of their common effort to support sustainable development. The DAC can, therefore, assist donors in developing programmes to address the digital divide in developing countries.

DCD is collecting information on current donor experience in the ICT field in preparation for a Joint OECD/UNDP/World Bank Forum in March 2001. The forum will bring together, by invitation, representatives of governments, civil society and the private sector—from both OECD and developing countries—and of international and regional organisations to discuss ways to bridge the international digital divide.

The **Development Centre (DEV)**, which applies the OECD's multidisciplinary expertise to development issues, has embarked on a research project on the role of e-commerce in development, beginning with an issues paper that is available on its website. This project has four elements:

- analysis of the key elements of the policy and institutional framework that needs to be put in place to promote e-commerce in developing countries, given different starting points;
- assessment of the feasibility of alternative models for ensuring low-cost Internet access to low-income entrepreneurs and other users in developing countries;
- sectoral analyses of how e-commerce is changing or is likely to change the competitive landscape for small-scale entrepreneurs in relatively low-technology sectors of developing countries; and
- model-based assessment of the impacts of ICT on productivity, costs, growth and distribution in developing countries.

Advance Notice

Joint OECD/UN/UNDP/World Bank Global Forum Development Programmes to Bridge the Digital Divide at OECD, Paris, 5 and 6 March 2001

The forum will bring together, by invitation, representatives of governments, civil society and the private sector—from both OECD and developing countries—and of international and regional organisations to discuss ways to bridge the international digital divide.

There will be two main themes:

- the integrated policy framework for the digital economy;
- the role of development co-operation to help countries exploit the digital opportunities.

The first theme will seek ways make existing OECD work and experience on e-commerce, e-government, IT education, policy and regulatory environments, privacy, security, consumer protection, etc. accessible for the use of developing and transition countries. This work provides an integrated policy framework covering: enabling macroeconomic and structural policies; flexible labour markets; strategies for building human capital; and entrepreneur-friendly policies that favour information and communications technologies (ICT) investment and innovation.

The second theme will provide an opportunity to examine and share examples of what works and what does not in promoting access to and use of ICT in developing countries. The examples will include local initiatives and partnerships between public and private sectors—with or without donor assistance. They will serve to sensitise bilateral donors in the OECD's Development Assistance Committee to the potential of ICT and the importance of helping to build capacity for developing countries to benefit from the ICT revolution. The forum will benefit from the results of a survey of what donors are already doing to bridge the digital divide and encourage them to make more use of ICT as a tool to help attain the overarching development goal of poverty reduction. This will cover the role of ICT in promoting job-creating growth and helping to achieve—including through improved co-ordination and facilitating partnerships—the other international development goals of universal education for both girls and boys, reduced child and maternal mortality, access to reproductive health services and environmental sustainability.

The forum is a major part of OECD's response to the Okinawa Charter on the Global Information Society—agreed by the G8 at their summit in July 2000. The Charter established the Digital Opportunity Taskforce (dot.force) to integrate efforts to bridge the digital divide into a broader international approach. The forum is being hosted by the OECD, in collaboration with the UN, UNDP and World Bank that provide the secretariat of the dot.force. It also forms part of the consultations and discussions by the United Nations Information and Communication Technology Task Force that will be created in early 2001 as agreed by ECOSOC in July and endorsed by the Millennium Summit in September.

It is intended to publish the proceedings of the forum. The forum will be an inaugural event of the OECD Global Forum on the Knowledge Economy and follow-up on the Emerging Market Economy Forum on Electronic Commerce (Dubai, January 2001). It will link to work on policy coherence in OECD countries.

The agenda will be developed during December and invitations issued at the turn of the year. Those interested in participating are invited to register their interest by visiting the forum site at www.oecd.org/dac/digitalforum.

DigBride

**Digital Opportunity Task Force Meeting
Tokyo, Japan
November 27, 2000**

**Remarks by Zoë Baird
President, Markle Foundation
U.S. Non-profit Organization Member of the DOTForce**

On behalf of the Markle Foundation and other non-profit organizations, it is a pleasure to be here and we look forward to being part of this effort.

I had the privilege of participating in the Heads of State meeting in Tokyo last July where this initiative was first discussed, and I must commend you for the leadership you have exhibited by expanding the participants and taking this forward with a sense of importance and urgency.

And I look forward to hearing from the country leaders from outside the G-8 about how we can support your objectives.

Creating digital opportunity for all is a challenge of enormous magnitude. Many of us around this table know first-hand the economic, social and political benefits a networked world can provide. But, we also know that market forces alone will not drive these benefits to places where there are obstacles. Lack of infrastructure, human capacity, access to capital, or unprepared regulatory environments are clear obstacles for many countries to create their own participation.

Let us be clear about why we must collectively devote ourselves to creating digital opportunities.

On the one hand, we are seeing growing evidence that information and communication technologies can meet some of people's most critical needs, and, in some instances, even allow countries to "leapfrog" over some of the persistent development challenges of the last twenty years. No one is suggesting that technology is a silver bullet here, rather, that it can be a powerful and breakthrough compliment or change agent to current development efforts.

On the other hand, we know that the unique nature of the information revolution means that failing to find ways to allow those currently not part of the networked world to participate risks deepening the gap even further. And, we know that some efforts, despite their best intentions, have the potential to fail or to harm by not respecting local cultures, perspectives and needs.

In short, the potential is enormous and so is the peril. But it is important to recognize today that, while this group represents a vast array of interests in the world, we are all here for the same reason – our convergence of interests in improving people's lives and our common recognition that information and communication technologies can make a meaningful, if not transformational, contribution to that end.

This task force has the potential to be the embodiment of this view, and to be significant for several reasons:

First, we are at a unique moment in time. As information and communication technologies grow globally at an exponential rate, unprecedented resources can be directed toward improving life in ways that may not be true several years from now. We currently find ourselves in an environment in which business and regulatory models are not yet fixed, government and public expectations are not formed, and many stakeholders' views are not set. If we miss this moment, we can easily find ourselves ten years from now with the commercial sector disinterested, the developing world disappointed, and the non-profit community having limited the role of ICT in their strategies.

Second, the very composition of this task force can be seen as a powerful standard for the new global policy-making bodies that are emerging as a result of globalization and the rise of the networked world. Many of our institutions are learning the hard way that all stakeholders must be represented at the table if they are to succeed. Placing non-profit organizations and developing countries at this table is necessary to the DOT Force's effectiveness and legitimacy. While the success of the DOT Force's work remains to be achieved -- and depends on our ability to work together to make something of it -- the equal representation of sectors will have lasting impact in setting standards for policy-making in the future.

Lastly, the substantial resources, knowledge and experience represented in this group raises the bar for this task force, encouraging us to produce much more than a report, but rather an effective strategy that broadly enables people to reap the benefits of the networked world and creates a serious mobilization of resources. The creation of the DOT Force has generated a great deal of initial interest and raised expectations....And that is exactly the point.

Let me turn to my own sector -- the non-profit organizations in this room. We represent only the beginning of the on-the-ground expertise, commitment and resources that ultimately will be necessary to make this effort work.

Each one of these organizations has a critical role to play: Whether it is by utilizing our deep community networks, employing the power of examples of work we have already done, putting our financial resources toward new strategic endeavors, or by forming stronger relationships with our counterparts in the South in order to strengthen their work.

We will need to be a vehicle for broad non-profit input as well as dissemination. And, this community will be an important partner in attending to preserving local cultures.

Having co-led the U.S. private sector working group leading up to the G-8 Summit in Okinawa, we saw first-hand the desire of non-profits, businesses, and governments to work together. Our goal is to continue that trend by further bridging the non-profit community with the ICT strategies and applications that can support the goals of developing countries.

With a shared set of principles, and the vast resources represented around this table, we should be able to make the significant idea of the DOT Force generate significant output.

Specifically, we should aim for our work: to set important goals; to create the context for country strategies; to identify and scale up best practices; and to create substantial commitment and investment for the future.

Achievement on these fronts will create the foundation for self-generating growth and will ultimately have made the DOT Force an important, though temporary, interlocutor.

Thank you.

Dr. D. D. D.

Barriers to Realising the Benefits of the ICT in Bolivia

In Bolivia, and in general in Latin American countries, diverse barriers are present by which users cannot consent to the Internet with the same levels of quality and penetration percentages as with developed countries.

The challenge that stands is how to ensure that all segments of society get appropriate access to the benefits that ICTs offer. Before discussing the constraints which are at the root of this challenge, it may be useful to consider the overall objectives to be met.

First, there is the issue of "benefits", that is, how to ensure that the benefits are consistent with individual, local, national, regional, global development priorities and do not contradict or undermine indigenous development goals.

A second caveat is the need for clarity on what "all segments of society" means. There are many potential end-users of ICTs within any developing country context including individuals, universities and educational institutions, NGOs and community organizations, businesses, government, public institutions and donors. Each of these users has different sets of needs in terms of content, technology applications, equipment and data speed transfer, levels of connectivity and interactivity, etc.

They represent different age groups and cultural perceptions, with different affinities for and familiarity with ICTs. They also have different infrastructure constraints, e.g. urban, semi-urban, rural and remote as well as limited budgets for purchasing equipment and software.

Emphasis must be placed not only on making sure the end-users are connected to the Global Information Infrastructure but also that they are connected to each other within the nation and local communities.

It is important to emphasize that barriers concern not only issues of technological access but financial, content, political, regulatory, organizational, human capital, knowledge, socio-cultural and ethical issues are also involved.

Technological Constraints

▪ CONNECTION TO THE INTERNATIONAL BACKBONE

The first and main matter is the exclusivity that has Entel (National Telecommunications Company) in the service of transmission of data at international level. The competition lack makes that the company doesn't have to worry to establish appropriate parameters of Quality of Service because, like it is the only operator that offers the connection to the international backbone, the other ISP are forced to hire its services.

Likewise, it was found that the cost of the rent of circuits and service carrier is very high in comparison with the international standards, what generates a direct damage to the final user.

▪ GUARANTEES IN THE HIRED BAND WIDTH

In the moment of the establishment of contracts with Entel, the ISPs don't find guarantees of wide of band, neither efficient parameters that assure a desirable quality of the service in the communication toward the Internet backbone, this implies that those ISPs cannot guarantee the quality of the service to their users.

▪ TELECOMMUNICATION INFRASTRUCTURE

The service of Internet doesn't reach beyond department capitals (and even not to all these). Serious constraints also exist with lack of reliable sources of power (indispensable input for the telephone and internet.) The availability of electricity is still very poor and vial access which facilitates the maintenance and construction of the facilities.

There is also a lack of redundant links and back-up equipment in many cases which tends to limit the reliability of applications. Alternatives in low-cost integrated solar power and battery recharge systems are being considered.

▪ TECHNOLOGY OBSOLESCENCE

The age of informatics equipment is a problem to be reckoned. In many cases, there may be a problem of compatibility between technologies, and with systems not fast enough to run, for example, Internet applications. Previous experiences with various technologies serve to raise the spectre of technology obsolescence, in organizations have invested heavily in a particular technology and found it out of date in a few years.

Financial Constraints

The high cost of ICTs constitutes one of the major obstacle. The costs are typically discussed in four areas: infrastructure, hardware, and telecommunication tariffs.

▪ HIGH COSTS OF DEDICATED CONNECTIONS

A factor that limits a better development of the Internet in Bolivia is the existence of monopolies in the basic local telephony service, which is handled by cooperatives along the Bolivian territory, and whose repercussions are described in the following chart:

Barrier	Description
Double charge for the phone traffic and the Internet service	The users have the perception that the service of Internet costs are a lot, due to the obligation that some ISPs have of including the minutes of use for the phone line (that is a service of the cooperative and not of the ISP) inside their invoices of the Internet service.
Low T1 readiness	- The administrative procedures to facilitate T1 connections by the cooperatives to the competitive ISPs it is annoying and supremely delayed. - Justness doesn't exist in the distribution of T1 between the ISPs cooperatives and the ISPs competing with those.
High T1 costs	The prices of the T1 connections is elevated in comparison with other Latin American countries

Barriers that are presented due to the Cooperatives

One of the barriers that is mentioned is the high cost of T1 connections, and that can be compared with the next chart:

Country	T1 Installation	Monthly T1 Cost (US\$)	Monthly Cost per line (US\$)
Colombia	-	250.00	8.33
Argentina	1,980.00	680.00	22.67
México	-	706.00	23.53
Chile	-	285.00	9.50
Brasil	975.00	329.28	10.98
Panamá	240.00	820.00	27.33
Guatemala	990.00	600.00	20.00
El Salvador	-	530.00	17.67
Costa Rica	360.00	337.52	11.25
Nicaragua	15,000.00	700.00	23.33
Honduras	900.00	330.00	11.00
Uruguay	3,360.00	623.00	20.77

▪ BILLING

The billing of the Internet services that becomes present in some cities of Bolivia, especially in La Paz, doesn't allow the growth and penetration of Internet. This is due to the combined fee for the phone calls with the monthly rate for the Internet access. This fee makes the users not to be interested in using Internet, since they think that the cost of the service is exaggerated.

▪ DISCRIMINATION OF PRICES

A situation that doesn't stimulate the use of dedicated channels by the ISPs was that the prices for final users and ISP's are different, where the rates were more expensive for the ISPs. This problem was solved last month and it is considered that it looks forward for the well-being of the users, either intermediate or final.

▪ COST OF APPLICATIONS AND CONTENT

The cost of producing and marketing applications and content represents another major hurdle. Most of developing countries are forced to buy extensively from the industrialized countries. For example, the software market is dominated today by the United States, Japan, Germany, Britain and France. The situation is not satisfactory to the industrialized countries either, since it results in the fact that much of the content available in developing countries is pirated.

Content and Interface Limitations

The question of access to content involves deeper issues than simply costs. There are strong concerns over very little diversity and relevance of content, particularly at local levels, as well as low production quality. Most content is produced either in the industrialized countries or in the urbanized capitals of developing countries. It often fails to reflect the physical conditions, the culture, the experiences and the development priorities of many current and potential users.

Language can also be a serious barrier to access. Besides Spanish, as the official language in Bolivia, other three languages are spoken by important sectors of the population such as Aymara, Quechua and Guaraní.

It is important, not only for the issue of access but also for that of diversity, that the production of localized content in many different languages be supported. However, today there is a lack of appropriate enabling environments (facilities, equipment, training, etc.) for the creation of local information products and materials.

Human Resource constraints

▪ Human Capital

The ability to effectively use and access ICTs in developing countries is severely constrained by lack and loss of highly trained human resources.

- Users lack the minimum level of "digital literacy" required to make effective use of and choices around ICT opportunities.
- There is a tremendous lack of technically trained personnel required to support National and Local Information Infrastructures.
- Intellectual capital is the greatest strength of the countries, the world faces an incredible need for more qualified people, and the developed countries have important immigration policies to welcome skilled high-tech workers from abroad. This of course, has a negative impact in the developing countries of losing good technical people and not being able to compete internationally for skilled people and better paid jobs.
- Incentives and cooperation must be established to educate, attract, and retain skilled people.

▪ Illiteracy

Illiteracy seriously limits the ability of Bolivian communities to utilize computers and online resources. Illiterate users are excluded from the information.

The illiteracy rate in Bolivia is 14.32%, with higher degree in rural areas.

14 % of Bolivian populations have no electrical services, especially in rural areas therefore have no access to the information highway.

Redesigning curricula to encourage the use of ICT from early stages of education in the pursuit of problem solving is essential and ITC tools must be incorporated in the learning system.

▪ Local Content

The LOCAL content on the internet has a tremendous importance to ensure access to a culturally and linguistically diverse cyberspace, becoming an opportunity to significantly accelerate and spread the benefits of economic development. A diversity of languages and local content would encourage

people to access and receive the benefits of the ICTs and the community will have access to information that is locally relevant.

Of course, the fact that 80 per cent of net content is in English, it means that 75% of the world population who can't speak English may not be able to realise the potential of ICTs as a resource.

From the point of view of regionalisation, local content could provide more jobs, reduce costs of goods and services, improve access to basic services, health and education and encourage local value-added activities. This would be a good way to decrease rural migration to urban areas with the direct impact of more unemployment in the cities and greatly contribute to economic growth by increasing the productivity and competitiveness across the agricultural, manufacturing and services sectors. In tandem, these technologies and services can generate many new and rewarding employment opportunities.

- **Awareness**

This matter should be a central objective for addressing the challenge of bridging the divide. This divide will become an opportunity when business leaders, policy-makers and members of civil society are aware of it's benefits and importance.

The opportune insert of Bolivia in the speedy world traffic toward the information society, contains promises of material prosperity, social justness, cultural revitalization and democratic development not perceived some years ago. The achievement of these promises demand to the country a strategic bet for the future that demands a quick institutional adaptation to the changes that induce the new ICTs.

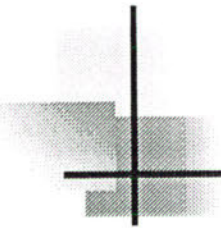
It is critical and urgent that political leaders take up the challenge and have the commitment to design and to implement a strategy that deploys the national infrastructure of information. This will only be accomplished if this authorities are aware of the benefits that brings the ICTs, and that the implementation and strategies of these technologies be developed by qualified and specialized professionals without political influence and interference.

Proposed Next Steps For the Dot Force

November 28, 2000

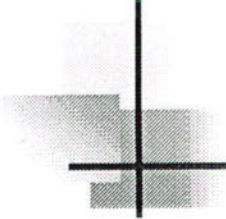
Thomas Kalil

The White House



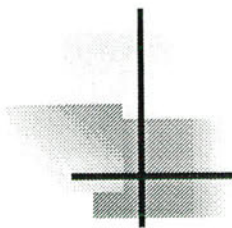
Working groups

- Policy, network readiness
- Access
- Human capital
- E-commerce and e-business
- Societal applications (e.g. e-health, e-learning, e-governance, cultural heritage)



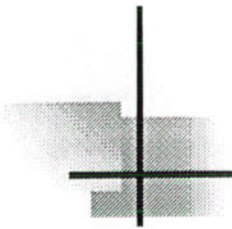
Working group tasks

- Existing activities
- Promising practices
- Seminal reports, articles, web sites
- Proposed goals, with metrics if possible
- Suggested initiatives to meet goals
- Roles and responsibilities of actors
- Open questions (what we don't know)



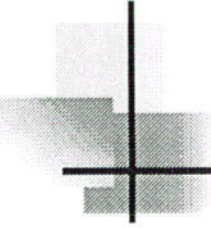
How will we get all of this done?

- Archived mailing lists with expert level participation
 - Written submissions, posted on Web site
 - At least one face-to-face meeting in January or February at experts level
 - One chair per working group
- 



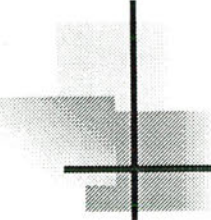
Policy, network readiness

- Goal: technical assistance for “digital opportunity” strategy for every developing country that wants it
 - Goal: capacity-building for independent telecom regulator to support pro-competitive policies
 - Question: what are barriers to telecom reform (e.g. loss of foreign exchange) – appropriate support for transition costs
- 



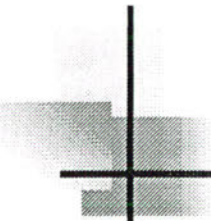
Access

- Goal: Scaling number of tele-centers and other forms of shared access – on a sustainable basis
 - Goal: Increase academic & industry computing R&D for unique challenges of developing countries (ultra-low cost, lack of power, multi-linguality, lower levels of literacy)
 - Question: what policies will promote both competition and universal access?
- 



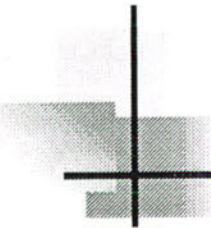
Human capital

- Goal: Expand availability of training for:
 - IT workers
 - End-user training (doctors, educators, NGOs, gov't agencies)
 - Content developers
 - Regulator-to-regulator
 - Entrepreneurs



Human capital

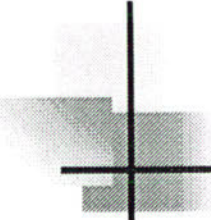
- Questions:
 - Where are the needs most critical?
 - For a given type of training, what mix of support make sense? (workshops, upgrading local universities, distance learning, scholarships)
 - Should dot force endorse creation of a Global NetCorps?
 - How could developing countries take advantage of "networked diaspora"?



E-commerce, e-business

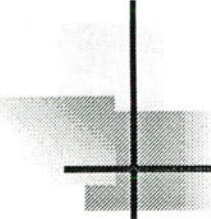
- Goal: increase capacity for developing country entrepreneurs to be engine of growth and job creation
- Goal: encourage new business models for serving poorest 3-4 billion with IT products and services





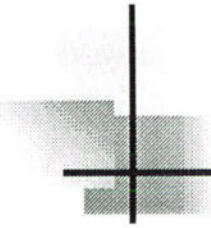
E-commerce, e-business

- Questions:
 - What changes need to be made in local business environment (cost of being “legal”)
 - Would private sector be willing to establish targeted investment funds for this purpose?
 - Is gov’t “risk-sharing” needed? If so, what changes in ODA would be necessary?
 - What forms of intermediary/support institutions are needed?
 - What new market opportunities are created for developing countries?



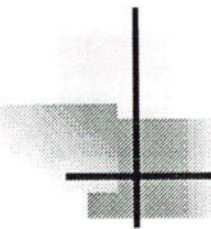
Societal applications

- Goal: harness power of IT for most pressing developing challenges in areas such as:
 - Poverty reduction
 - E-health
 - E-learning
 - E-governance
 - Cultural heritage



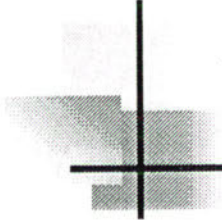
Societal applications

- Questions:
 - Should dot force endorse new pilot projects? If so, what would distinguish them from current efforts (e.g. scale, new kinds of projects being supported)?
 - What are some strategies other than pilots that should be considered?



Overall questions

- How do we make this a “presidential” level issue?
 - How can the dot force support the implementation of already well-defined regional and national strategies?
 - Can we have large-scale efforts that also take advantage of grassroots knowledge, creativity, and participation?
 - How can we increase learning between mainstream development community and the IT community?
- 



Overall questions

- What level of coordination and cooperation between the plethora of national, regional, global and private sector efforts is desirable and achievable?
- What should happen to the dot force and international cooperation more broadly post-Genoa?

Bridging the Digital Divide

On-going Initiatives

A background note prepared by the *Dot Force* secretariat
for the Tokyo meeting of 27-28 November 2000

This note provides brief description of initiatives, funded by multilateral/bilateral organizations, development agencies and collaborative networks, that (1) are related to the use of Information and Communications Technologies and (2) allow the creation of networks bridging the digital divide.

I. PROGRAMS BY MULTILATERAL AGENCIES

EUROPEAN COMMISSION

http://europa.eu.int/comm/index_en.htm

The activities of the European Commission in the field of Information Technology are executed through the Information Society Activity Center (ISAC). The center aims at ensuring coherence and maximum synergy among different information society approaches in the framework of the European Union. The main objective of ISAC is to mainstream the information society into all the other policies of the European Union, contributing to fully exploit its potential impact and benefits.

The Information Society Promotion Office (ISPO)

<http://www.ispo.cec.be/>

ISPO was set up in 1994 as the main organ of ISAC to support, promote and orient private and public actions in the field of the information society. ISPO

- calls for proposals;
- acts as one stop shop provision of information services;
- promotes Information Society awareness;
- creates inventories of Information Society projects and actions;
- identifies best practices;
- facilitates networking between European Information Society actors.

ISAC has a separate unit (ISAC 2) focusing on regional aspects and international diffusion of the information society. ISAC 2 aims to develop and promote a European approach to information society within regional and international contexts. It covers a broad range of activities including: collecting information at regional and international levels on the progress of information society take-up; promoting the information society in developing countries in co-operation with the European

Commission; supporting the development of information society policy orientations through the elaboration of specific proposals; developing issue-specific regional/international networks, and coordinating dialogues through seminars, conferences or other actions.

INTER-AMERICAN DEVELOPMENT BANK (IDB)

<http://www.iadb.org/>

The Inter-American Development Bank is a regional multilateral development institution to help accelerate economic and social development in Latin America and the Caribbean.

The Information Technology for Development (ITD)

http://www.iadb.org/regions/itdev/about_us.htm

The Information Technology for Development Unit of IDB provides technical advice and technical guidance to borrowing client governments and private entities in the area of Information Technologies.

ITD offers strategic and technical advice to governments on how to make better use of available information management technologies; develops cooperation agreements and co-financing arrangements to support research activities, studies, training, seminars, technical assistance and pilot projects; promotes linkages between public and private institutions within the region and between the region and institutions in non-borrowing countries, in order to strengthen the participation of local institutions in the identification and development of technical solutions to information management problems.

INTERNATIONAL TELECOMMUNICATION UNION (ITU)

<http://www.itu.int>

The International Telecommunication Union is an international organization within which governments and the private sector coordinate global telecom networks and services.

The Telecommunication Development Bureau (TDB)

<http://www.itu.int/ITU-D/Overview.htm>

The Telecommunication Development Bureau of ITU encourages and enables ITU Member States, especially emerging markets, to draw maximum benefit from technical, financial and regulatory changes in the telecoms environment. The TDB provides the infrastructural support for a comprehensive and collaborative development program for the enhancement of telecommunication systems and services. Whether advising on appropriate institutional structures, networks and services for efficient telecommunications or assisting in mobilizing the financial and human resources necessary to introduce technological innovations, the Bureau's

work extends the ITU's commitment to encouraging the application of new technology.

ITU Initiatives:

ELECTRONIC COMMERCE FOR DEVELOPING COUNTRIES (EC-DC)

<http://www.itu.int/ECDC/>

One of the TDB's primary initiatives is the Electronic Commerce for Developing Countries (EC-DC) project. The EC-DC project aims to allow emerging markets to use their current infrastructures and services to take part in electronic commerce, to transfer the know-how of electronic commerce technology and to motivate the planning and deployment of the telecommunication infrastructure.

This project will also stimulate Internet penetration, boosting businesses for local content and connection services providers, and will encourage better regional and multi-national co-operation through easier communications.

UNITED NATIONS – ECONOMIC AND SOCIAL COUNCIL (ECOSOC)

<http://www.un.org/esa/coordination/ecosoc/itforum/ict.htm>

The setting up of this UN Digital Task Force will establish a pivotal role for the UN system in the ICT area and provide an interface between the information technology community and the development community bringing together the private sector, the foundations, and the donor community to develop innovative modalities to bring ICT capacity to the developing world.

The mission of the Task Force would be to provide overall leadership in helping to formulate strategies for ICT development and putting them at the service of development for all, to forge a strategic partnership between the United Nations system, private industry and financing trusts and foundations, donors, program countries and other relevant stakeholders, and to mobilize new resources for ICT for development. The Task Force will also administer a Trust Fund to be established and funded on the basis of voluntary contributions by interested partners.

Main Next Steps:

- Establishment of the ICT Advisory Group
- Consultation process of the ICT Advisory Group (October through December 2000)
- Presentation of the report of the Secretary-General to ECOSOC (January 2001)
- Establishment of the Task Force (February 2001)
- Formation of the Trust Fund (May 2001)

UNITED NATIONS VOLUNTEERS (UNV) -- UNITEs

<http://www.unites.org/>

The intention of the initiative, the United Nations Information Technology Service, or UNITEs, is to create a worldwide program for information technology volunteers. They will work with their developing country partners to strengthen capacities for applying information and communications technologies (ICT) to human development, in particular in areas such as health, education, environment and small and micro-enterprises.

UNITEs will work through a broad coalition of institutions from both the South and the North, including governments, civil society, the private sector, development agencies and academia. The volunteers will come from the South as well as the North. The program intends to foster the participation of developing country nationals as volunteers to the greatest possible extent. This includes creating the possibility for national volunteers to work in their own countries. The initiative highlights the role given to ICT-savvy volunteers in responding to the important challenge to extend the benefits of the information revolution to all people everywhere.

UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

<http://www.undp.org/>

The United Nations Development Programme's mission is to help countries in their efforts to achieve sustainable human development by assisting them to build their capacity to design and carry out development programs in poverty eradication.

UNDP has a dedicated ICT for Development Unit (<http://www3.undp.org/it4dev>) which provides overall policy and technical advice to both country programs and developing country governments for harnessing the use of ICT to foster sustainable economic growth and social equity. A series of new initiatives are being launched in partnership with key private sectors firms and organizations as well as the World Bank and other UN agencies.

UNDP Initiatives:

THE SUSTAINABLE DEVELOPMENT NETWORKING PROGRAMME (SDNP)

<http://www.sdn.undp.org/>

The Sustainable Development Networking Programme is part of the UNDP's effort to address the issues of the increasing 'information gap' between industrialized countries and developing countries. SDNP operates at the country level, launching and supporting local Internet sites, and building national capacities and knowledge resources. The program focuses on connectivity, capacity building and content creation and dissemination based on a participatory and multi-sectoral approach.

Launched in twelve national pilot projects in 1993, SDNP now operates in over 40 developing countries. The program aims to make information technology more accessible, more usable and more understandable to both governments and civil society, tailored to each country's situation and needs. For example, in Jamaica, Mozambique and Honduras, the program focused on enhancing civil society's access to IT, while in Honduras and Pakistan, the program provided support in emergency situations.

THE SMALL ISLAND DEVELOPING STATES NETWORK (SIDSNET)

<http://www.sidsnet.org>

Launched in 1996 by SDNP, is a community of 42 developing country islands connected through the Internet for information sharing and action coordination on key issues, identified by the UN Barbados SIDS conference of 1994, affecting island countries. Works in close association with the Alliance of Small Island States (AOSIS) and provides dedicated networking and training to SIDSNet partners at the national and regional levels.

WIDE

<http://www.wide.org.br/>

WIDE is the most recent initiative of UNDP, run by Technical Cooperation between Developing Countries (TCDC). It is an Internet-based service designed to foster technical cooperation among developing countries to build communication and to promote wider and more effective cooperation among developing countries. WIDE provides world-wide real-time information on knowledge, skills, experience, resources, and technical know-how available in developing countries. WIDE will set up an expert database with useful up-to-date data and promote its use for greater South-South cooperation. WIDE will also allow a network of partners to build capacity within countries and organizations in the South.

The WIDE Initiative consists of:

WIDE OnLine: An Internet-based public access database containing user-maintained data on experts, institutions and best practices in the South which will also allow electronic marketing campaigns.

WIDE InterLink: A network of stakeholders sharing the WIDE electronic venue to build capacity for technical cooperation among developing countries.

ICT FOR DEVELOPMENT PROGRAMME

<http://www.undp.org/info21>

Launched in 1997, aims to increase awareness and generate ICT strategies at the national level, building national capacities and deploying Technology Access Community Centers in selected pilot locations. It also manages a substantial portal site that contains state-of-the-art information on ICT and development issues.

THE WORLD BANK GROUP

<http://www.worldbank.org>

The World Bank Group's mission in the information technology and telecommunications sectors is to bring the information age closer to emerging markets, and help them in becoming part of the global economy. On January 2000, the telecom group of the International Financial Corporation (IFC) and the telecom group of the World Bank were brought together to form the new Global Information and Communications Technologies Group. The new group will be able to provide both governments and private companies with the capital and expertise needed to liberalize their telecommunications industries, and enable developing countries to benefit from the Information Revolution.

infoDEV

<http://www.infoddev.org>

The Information for Development Program (*infoDev*) is a multi-donor grant facility created in September 1995 with the objective of exploring the opportunities offered by information technology, and addressing the obstacles facing developing countries in an increasingly information-driven world economy. A global program managed by the World Bank, *infoDev* pools the intellectual, technical and financial resources of the public and private sectors, facilitates market development and promotes the use of information and communication technologies (ICTs) in areas such as education, health, government, commerce and environmental protection.

infoDev provides a framework for initiating and field-testing new development ideas. Project proposals are submitted by individuals, government agencies, private companies, academic institutions or non-governmental organizations (NGOs). Projects selected for financing:

- Create a market-friendly environment to accelerate access to information technologies;
- Reduce poverty and economic exclusion;
- Promote education, health and environment; and
- Improve the efficiency and transparency of governments.

infoDev's work program focuses on building consensus on the use of information technology for development; consolidating efficient markets in the sectors of communications and information infrastructure; innovating through small-scale projects that have a potential for replicability on a larger scale or at different places; disseminating best practices and lessons learned from the operations it supports, as well as other experiences of relevance to the development community.

infoDev also supports special initiatives, such as regional connectivity, reform of telecommunication, accounting rates or the Y2K-Initiative (this was developed to remedy potentially serious disruptions at the turn of the year 2000 and help governments in its client countries manage the risks.) Recently, *infoDev* is supporting the development of the *Global Development Gateway*, a new initiative

that is expected to become the premier development portal in the World Wide Web. The Global Development Gateway initiative aims to harness knowledge and technology for sustainable development and poverty reduction.

The World Bank Group Initiatives:

AFRICAN VIRTUAL UNIVERSITY (AVU)

<http://www.avu.org/>

The African Virtual University is an interactive-instructional telecommunications network established to serve the countries of sub-Saharan Africa. The objective of AVU is to build capacity and support economic development by leveraging the power of modern telecommunications technology to provide world-class quality education and training programs to students and professionals in sub-Saharan Africa. AVU's objective is to use information and communication technologies to increase quality of education, build management and technology capacities at African Universities, develop telecommunication networks for sharing of academic resources among African Universities and between academic institutions in Africa and the rest of the world.

In addition to offering classes, AVU also maintains a sophisticated, internet-based digital library of journals, academic studies, and textbooks that allows both student and teacher alike access to a wide range of information.

EMERGING MARKETS – INTERNET FUND

<http://www.softbank.com/sbem/>

The International Finance Corporation (IFC) which is the part of the World Bank Group financing private sector led projects in developing countries recently announced Emerging Markets Internet Fund in collaboration with Softbank Corp. of Japan, a new initiative to help close the digital divide. The fund will form joint ventures with major Internet businesses in Emerging Markets which will in turn set up specific Internet Businesses in each particular country: central to the initiative is the establishment of incubators in each country which will provide start-up services to set up Internet business. This initiative will help and support entrepreneurs in developing countries to use established business models to start up locally adapted versions of some of the world's leading Internet companies.

GLOBAL DEVELOPMENT GATEWAY (GDG)

<http://www.worldbank.org/gateway>

The Global Development Gateway is envisioned as a Web portal on development issues, where users can acquire information, resources, and tools—and contribute their knowledge and experience. The Gateway will create a common platform for shared material, dialogue, and problem solving that is easier to access and navigate than the current wealth of information on the Internet. This will enable those in the development field to share information, communicate easily, and build communities of practice around significant development challenges from the grassroots up.

The Gateway has two main elements—the Global Gateway and Country Gateways. Global Gateway portals will serve the needs of community groups, governments, the private sector, and donor agencies at an aggregate and global level. Country Gateways will serve as portals to specific countries and will be tailored to the same groups as the Global Gateway. Fifty Country Gateways are to be established in the next three years.

GLOBAL DEVELOPMENT LEARNING NETWORK (GDLN)

www.worldbank.org/gdln

The Global Development Learning Network is a leading-edge tool that aims to help bridge the digital divide. Linked through a web of high-speed communications technologies, network members are part of a worldwide exchange of learning activities, including courses, seminars, and discussions on key development issues. These technologies allow people everywhere to share their know-how and experience, regardless of time zones, distance, or national boundaries.

Connecting distance learning centers in cities around the world, the network harnesses the latest learning tools—interactive video, electronic classrooms, satellite communications, and the Internet—to help bridge the knowledge divide. Providing videoconferencing services for one-way and two-way connections, each distance learning center offers high-speed access to the Internet and a fully equipped multimedia learning room with computer workstations. Each center provides and manages its space, infrastructure, and program of courses and seminars. This includes local marketing and promotion of the learning program and such administrative support as participant registration and follow-up.

GLOBAL DEVELOPMENT NETWORK (GDN)

<http://www.gdnet.org/about.htm>

The Global Development Network is a collaborative initiative of development institutions globally created in 1998. GDN aims to support and link research and policy institutes involved in the field of development, and whose work is predicated on the notion that ideas matter. The GDN encourages the generation and sharing of knowledge for development and to help bridge the gap between the development of ideas and their practical implementation. Achieving these goals involves strengthening the capacity of research and policy institutions to undertake high-quality, policy-relevant research and to move research results into the policy debates, at both national and global levels.

The GDN expects to offer research and policy institutes and existing networks around the world a menu of products -- workshops; networking opportunities; research grant competitions; training opportunities; and other services to improve research skills, business practices, and improved connectivity with sources of knowledge. In addition, GDN supports activities that emphasize the organizational side of think tank activity, such as fundraising, evaluation, and effective dissemination of research products.

GLOBAL KNOWLEDGE PARTNERSHIP (GKP)

<http://www.globalknowledge.org/whoarewe.html>

The Global Knowledge Partnership is an evolving, informal partnership of public, private and not-for-profit organizations. The GKP secretariat is hosted by World Bank Institute. Partner organizations are committed to sharing information, experiences and resources to promote broad access to, and effective use of, knowledge and information as tools of sustainable, equitable development. The GKP emerged from the cooperation of several dozen organizations in sponsoring the Global Knowledge 97 conference.

The work of the Global Knowledge Partnership is rooted in the conviction that access to, and effective use of knowledge and information are increasingly important factors in sustainable economic and social development for individuals, communities and nations; that the information revolution can be a positive force for empowering the world's poor; that effective action to assure the inclusion of the poorest individuals, communities and nations in the global information economy requires increased Partnership and mutual learning among public, private and not-for-profit organizations.

WORLD LINKS FOR DEVELOPMENT (WorLD)

<http://www.worldbank.org/worldlinks>

The World Links for Development (WorLD) Program is a global collaborative learning program sponsored by the World Bank Institute, in coordination with the World Links Organization. The WorLD program links students and teachers in secondary schools in developing countries with their counterparts in industrial countries, for collaborative learning programs through email and the Internet. As a complement to the WorLD program, the World Bank Institute's Development Education Program provides curricular tools and resources for teachers and students to explore social, economic, and environmental issues of sustainable development. Now operating in 500 schools in 20 countries, the WorLD program benefits about 100,000 teachers and students.

PARTNERSHIPS

THE DIGITAL OPPORTUNITY INITIATIVE

This partnership with Andersen Consulting, Markle Foundation, the World Bank and UNDP) will deliver a global assessment of the extent and implications of new information and the knowledge gap, propose a concrete plan of action for closing that gap in the next 10 years, and develop innovative and breakthrough exemplar projects spanning the globe.

GLOBAL NETWORK READINESS AND RESOURCE INITIATIVE

This partnership with the UN Foundation, IBM, the Markle Foundation, the World Economic Forum, the Center for International Development at Harvard University and others, will offer country-level assistance to build national information infrastructure strategies, including expanded human capacity, community initiatives and indigenous entrepreneurship, pro-competitive policy and regulatory environments and rural connectivity. UNDP will act as a lead agency for network readiness initiatives worldwide.

II. REGIONAL/NATIONAL EFFORTS

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC)

<http://www.idrc.ca/>

The International Development Research Centre is a public corporation created by the Canadian government to help communities in the developing world find solutions to their social, economic, and environmental problems. IDRC connects people, institutions, and ideas to ensure that the results of the research it supports and the knowledge that research generates, are shared equitably among all its partners, North and South.

In the realm of information technology, IDRC is dedicated to reduce the information gap, and supports:

- Research on applications of information and communication technologies in problem solving, decision-making, and knowledge access;
- Networking and the use of information and communication technologies to meet the needs of local communities and to promote equity in development; and
- Policies and practices that will increase the benefits and reduce the negative impacts of the evolving information infrastructure on developing countries and their people.

IDRC Initiatives:

ACACIA

http://www.idrc.ca/acacia/acacia_e.htm

IDRC launched the Acacia Initiative to empower sub-Saharan African communities with the ability to apply information and communication technologies to their own social and economic development. Its objectives are to find out how disadvantaged sub-Saharan African communities can apply information and communication in solving local development problems; to disseminate the research results widely and to promote international interest in this field.

Mozambique, Senegal, South Africa and Uganda are the pilot countries for the initiative. Initial projects focus on reforming policy, extending infrastructure, addressing technology and usage issues, and supporting the creation of relevant applications and content.

BELLANET

<http://www.bellanet.org>

Bellanet is a program initiated by IDRC and is governed by the Bellanet International Steering Committee, whose membership is drawn from the institutions which provide core funding. Bellanet's mission is to foster inter-agency collaboration through more effective use of information and communication technologies (ICTs). It brings together partnerships sharing a specific focus and creates "collaborative initiatives."

Bellanet's activities are geared towards strengthening the capacity of donors and partners in the South to use ICTs to enhance collaboration; identifying and solving problems hindering effective collaboration; and identifying, sharing and applying best practices and lessons learned.

PAN NETWORKING

http://www.idrc.ca/pan/index_e.html

The mission of the PAN Program Initiative is to establish efficient communication and networking among developing-country research and development institutions, NGOs, and development workers to support their efforts to solve development problems. The program aims to ensure that the Internet provides all social groups with benefits that contribute to improving their standards of living. To fulfill its mission, PAN will continue to concentrate its efforts on the four cornerstones upon which it has been built in Asia.

The overall objective of PAN is to determine how researchers and development workers in developing countries can best use, develop, and adapt networking technologies to improve communication, their access to information, and the impact of the research they conduct to solve development problems — social, economic, cultural, political, educational, or environmental.

INTERNATIONAL INSTITUTE FOR COMMUNICATION & DEVELOPMENT (IICD)

<http://www.iicd.org/index.ap>

The International Institute for Communication and Development has originally been established by the Netherlands Ministry of Development and Co-operation in 1997. IICD assists developing countries to keep up with the latest developments in information and communications technologies (ICTs). IICD places special emphasis on electronic communication applications that can be used to improve the range and the access to services such as healthcare, education, public information, and environmental protection, particularly by the underprivileged in society.

IICD acts as an independent broker between countries in development and the stakeholders that drive the international market of ICTs. In order to achieve this, IICD has been commissioned to assist key players in developing countries to obtain access to information technology markets, become involved in decision making processes, to use

these technologies to foster sustainable development and to reflect on potential negative impacts of ICT applications on traditional cultures.

To implement its mission, IICD focuses on four core activities:

- Initiating National ICT Roundtables in developing countries to assist in the creation of ICT policy platforms;
- Helping to formulate pilot projects where these technologies can be implemented for the benefit of all members of society;
- Organizing and facilitating international policy workshops and seminars on ways to integrate ICTs within development processes; and
- Managing ICT Information Services, where the Service Desk and a databased website are available to deal with issues related to the use of new technologies in development.

THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)

<http://www.usaid.org>

The U.S. Agency for International Development is the U.S. federal government agency that implements America's foreign economic and humanitarian assistance programs. As the distribution of information has become a very important aspect of global development, USAID has dedicated itself to empowering developing countries with the knowledge and technology to not only survive but to thrive in the global networked economy. Many of USAID initiatives on information technology aim to facilitate access to the Internet by improving connectivity, increasing access to information for sustainable development and promoting policy reform to reduce barriers to open connectivity.

USAID Initiatives:

LELAND INITIATIVE

<http://www.info.usaid.gov/regions/afr/leland/project.htm>

The Leland Initiative is an effort to extend full Internet connectivity to over twenty countries in Africa in order to promote sustainable development. The Leland Initiative seeks to bring the benefits of the global information revolution to people of Africa, through connection to the Internet and other Global Information Infrastructure technologies. The Leland Initiative aims to:

- Create an enabling policy environment by promoting policy reform to reduce barriers to open connectivity;
- Provide a sustainable supply of Internet services by identifying appropriate hardware, assisting with full Internet connectivity, and assisting private sector ISPs to develop their industry;
- Enhance Internet use for sustainable development by increasing the ability of African societies to use the communication and information tools of the Internet.

<http://www.info.usaid.gov/regions/afr/alnk/welcome.html>

AfricaLink facilitates effective African networking -- the regular and routine sharing of information by working in close collaboration with USAID bilateral and regional missions in Africa. The initiative supports regional networks of African policy makers and scientists in agriculture, natural resource management, and the environment.

AfricaLink focuses on the problem of access for members of specific, organized networks. AfricaLink assistance to network members is coordinated through formal network leadership and furnished through local and regional service providers in Africa, largely in the private sector.

III. OTHER MAJOR COLLABORATIVE NETWORKING INITIATIVES

ASSOCIATION FOR PROGRESSIVE COMMUNICATIONS

<http://www.apc.org>

The Association for Progressive Communications (APC) is a global network of non-governmental organizations (NGOs) whose mission is to empower and support organizations, social movements and individuals in and through the use of information and communication technologies to build strategic communities and initiatives for the purpose of making meaningful contributions to equitable human development, social justice, participatory political processes and environmental sustainability.

APC has 25 worldwide member networks which offer a wide range of services in software and hardware support, enabling thousands of activists and organizations to access the Internet, collaborate online and set up a Web presence for their cause.

E-ASEAN TASK FORCE

<http://www.e-aseantf.org/>

The e-ASEAN Task Force was created by ASEAN to develop a broad and comprehensive action plan for an ASEAN e-space and to develop competencies within ASEAN to compete in the global information economy. The Task Force will give effect to the ASEAN Heads of State / Government directive to establish an ASEAN Information Infrastructure (AII). In developing the plan, the Task Force has been asked to examine the physical, legal, logistical, social, and economic infrastructure needed to create the basis for ASEAN's competitiveness in the 21st century.

The e-ASEAN Task Force will undertake the following specific functions:

- Review and consolidate the recommendations of the WG-AII and the Private Sector Core Group on the AII.
- Determine the Policy, Legal, and Regulatory environment that will encourage the development of the AII.

- Assess the infrastructure and human resource needs of ASEAN member countries and recommend ways of achieving full participation in the most cost efficient and expeditious way.
- Recommend ways of including the social and cultural dimensions of ASEAN into e-space.
- Identify projects and project paradigms that could jump start the AII and show immediate benefits.
- Prepare best practices tools for human resources development and education to support the e-space.
- Promote e-ASEAN to the communities in ASEAN, including corporations, governments and the people, as well as externally.
- Evaluate other matters that could affect the e-ASEAN initiative, concerning IT development in the ASEAN region or globally.

ELECTRONIC DEVELOPMENT AND ENVIRONMENT INFORMATION SYSTEM (ELDIS)

<http://www.ids.ac.uk/eldis/eldis.html>

Electronic Development and Environment Information System is a Gateway or a one-stop tool for easy access to information on development and the environment. ELDIS provides an ever increasing number of descriptions and links to a variety of information sources, including WWW and gopher sites, databases, library catalogues, bibliographies, and email discussion lists, research project information, map and newspaper collections. The information sources listed are chosen for their quality by a staff at the Institute of Development Studies (IDS) in the University of Sussex, UK, and priority is given to full-text documents. The service is mainly funded by DANIDA of Denmark; and it remains a project of the IDS.

THE GLOBAL BUSINESS DIALOGUE ON ELECTRONIC COMMERCE (GBDE)

<http://www.gbd.org/>

The Global Business Dialogue on Electronic Commerce (GBDe), a CEO and Board Member-led initiative of more than 72 companies from countries around the world, announced plans to expand cooperation with business and government leaders in the Asian Pacific Economic Cooperation (APEC) region to contribute to APEC's development of an "Action Agenda for the New Economy."

GBDe announced that it is working with governments to help create the Internet-based "knowledge network" that will allow government officials, non-profit groups, academics, and others to obtain updated information on digital divide projects around the world. The knowledge network will build on the compendium of international digital divide projects assembled for this summer's G-8 Summit by posting the information on the web, allowing information and projects to be added and making them more accessible and interactive. The GBDe plans to work with the U.S. Government to expand the initiative with other APEC countries. GBDe also looks forward to developing similar programs with other governments.

THE GLOBAL INFORMATION INFRASTRUCTURE COMMISSION (GIIC)

<http://www.giic.org/index.html>

The Global Information Infrastructure Commission is a project under the Center for Strategic and International Studies (CSIS) and is an independent, non-governmental initiative involving leaders from developing as well as industrialized countries. The mission of GIIC is to foster private sector leadership and private-public sector cooperation in the development of information networks and services to advance global economic growth, education and quality of life.

GIIC works toward promoting involvement of developing countries in the building and utilization of truly global and open information infrastructure; and facilitating activities and identify policy options which foster effective applications of telecommunications, broadcasting and information technologies and services.

SATELLIFE AND HEALTHNET

<http://www.satellife.org>

SATELLIFE is an international non-profit organization which uses satellite, telephone and Internet technology to serve the communication and information needs of the health sector of developing countries. Its mission is to improve health by enhancing connectivity among professionals in the field via electronic communications and exchanges of information in the areas of public health, medicine, and the environment. SATELLIFE focuses on areas where access is limited by poor communications, economic conditions, or natural disasters.

HealthNet is SATELLIFE's computer-based telecoms system that links health care professionals in Africa, Asia, Central America and South America to each other. HealthNet is used by 19,500 health care workers in more than 150 countries worldwide. Applications include physician collaborations, data collection, health care delivery, medical alerts and access to medical libraries.

Dot Force Secretariat, V. 1.2 (22 Nov 00)

Dot Force

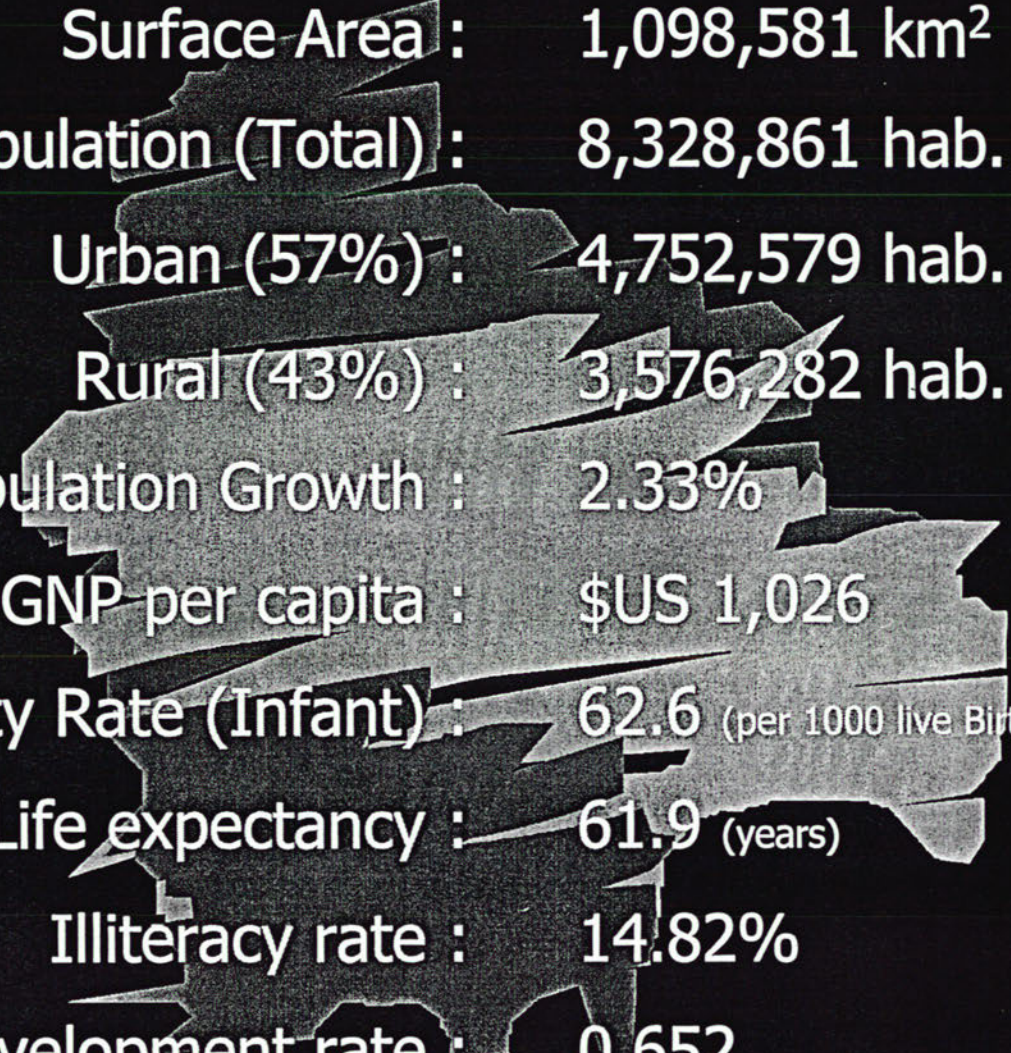
Information and Communications Technology

(BOLIVIA)

Rodrigo Arce Jofré
Chief Head of the Information and Technology Unit
(UFI)

Inaugural Meeting of the Dot Force
Tokyo, Japan
27-28 November, 2000

Bolivia



Surface Area :	1,098,581 km ²
Population (Total) :	8,328,861 hab.
Urban (57%) :	4,752,579 hab.
Rural (43%) :	3,576,282 hab.
Population Growth :	2.33%
GNP per capita :	\$US 1,026
Mortality Rate (Infant) :	62.6 (per 1000 live Births)
Life expectancy :	61.9 (years)
Illiteracy rate :	14.82%
Human development rate :	0.652

Technology and infrastructure

Telephone mainlines installed : 460,877

Telephone density : 5.53 %

Telecomm. weight in the GDP : 1.9 % (below the Latin America average 2,1%)

Concentration of lines installed : 80 % (in the three major cities)

Personal Computers : 7.5 (per 1000 people)

Internet Hosts : 0.8 (per 10,000 people)

Internet Service Providers, ISP : 18

ISP users (inscribed) : 40,000 (aprox.)

Concentration of users : 90 % (in the three major cities)

Monthly access rate : \$US 20.- (plus local service costs)

Extreme Poverty



Bolivia is the only landlocked Andean country. It has a largely indigenous Indian population that has preserved its native languages and much of its traditional way of life. It borders Peru and Chile in the west, Brazil in the east, and Paraguay and Argentina in the south

Bolivia is one of the poorest countries in Latin America. About two-thirds of the Bolivian population is poor, with low levels of education, health and nutrition.

Human Capital

Session 5

Content

Knowledge

Education

Human Capital Flight



The future is built today, not tomorrow

Only kangaroo jumps are worth

Enormous opportunities are there to be seized and shared by us all



Tank you, from the
people of Bolivia



BOLIVIA

Day Divide

G8 DOT Force

Information for All

=

Education for All

27 November, 2000

UNESCO - ADG/CI

One Fact

World population in 2000 : 6 billion

**5% have access to Internet (85% are living
in the industrialized countries)**

**15% are excluded from the information
society for lack of basic literacy**



One Question:
How can we use ICTs to accelerate progress
towards Education for All and throughout
life?

By promoting use of ICTs as levers
for educational change to break
through the boundaries of traditional
education systems



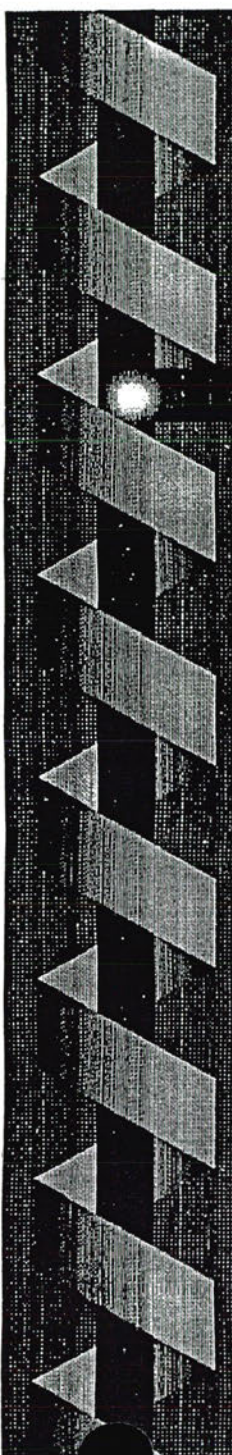
Bearing in mind that :

- ❑ ICTs are only tools**
- ❑ It is educational needs and goals, not materials or technology, that must drive educational change**
- ❑ Internet is an information and documentation system, not an education system. It does not replace teachers**



ONE PRIORITY: TEACHERS (1)

- ☐ **Creating new forms of distance delivery of education, notably for teacher training, in-service training and up-grading**
- ☐ **Networking of teacher training institutions, and teachers**
- ☐ **Building up and expanding electronic libraries for education and of educational materials**



ONE PRIORITY : TEACHERS (2)

- ❑ Establishing strategies for the use of ICTs for pedagogy : self-learning, classroom interaction, classroom access to learning materials at a distance**
- ❑ Supporting the creation of centres of innovation and excellence with regard to effectively using ICTs in education**



Many ethical and legal issues are unresolved concerning widespread use of ICTs in education

- ☐ **Ownership of knowledge**
- ☐ **Legal and tariff framework that governs cross-border exchange of knowledge**
- ☐ **Learning opportunities and educational materials**
- ☐ **Education produced and traded as a commodity**
- ☐ **Globalization of education versus cultural diversity**



Therefore, there is a need for a permanent global debate on education and ICTs with a view to

- ❑ **Identifying, assessing and disseminating information about “what works” in using ICTs for learning**
- ❑ **Carrying out research activities that examine legal, economic and social implications of using ICTs in education**
- ❑ **Developing an educational portal to access information, providing platform for dialogue and exchange**

Digital Divide

Inaugural Meeting of the Digital Opportunity Task Force (DOTForce)

„Internet-access for the whole World“

Presentation of the private-sector representative
of Germany

Friedrich Fröschl,
Siemens Business Services GmbH & Co. OHG

27 November 2000, Tokyo

Prime Minister,
Ladies and gentlemen,

Internet access for the whole world. If we succeed in achieving this aim, the digital divide will no longer be relevant.

We, and I am now speaking on behalf of the G8 private sector representatives, welcome the initiative of the G8 countries to establish a task force to bridge the digital divide between industrialized and developing countries.

We believe that we can achieve this aim only by joining forces. Success will come only if all stakeholders pull in the same direction. For this reason I am delighted that the Japanese government has managed to get all the parties concerned together here in Tokyo.

As we all know, the new IT technologies are making fast, cost-efficient communication possible worldwide, thus opening up a wealth of new opportunities. And yet the digital divide between industrialized and developing countries has widened in recent years. This serves to remind us that new technologies alone cannot work miracles. What is needed is the clear political will to create a market-economy framework which enables the rapid deployment of information technologies all over the world.

There is a giant task ahead of us. To accomplish that task we will require a systematic approach, a public-private partnership where all involved are crystal clear about what they have to do. This partnership needs to be agreed and defined by milestones.

We also believe that we have to begin by reaching agreement on design principles and basic approaches. We also have to focus for example on specific regions and developing countries. And we need clear criteria for monitoring success.

How this could be achieved in detail is already being worked out by a number of different bodies, such as the *World Economic Forum*, the *Global Business Dialogue on Electronic Commerce*, or the *Global Infrastructure Commission*. The important thing is that their work is coordinated and results in a joint program of action.

From the point of view of industry, the digital divide revolves around three issues:

1. the question of **connectivity**,
2. the area of **training**, and
3. the encouragement of **entrepreneurship**.

The issue of connectivity includes questions of internet access, charges and content. Enabling people to use the new medium will be one of the key factors in its success. Encouraging entrepreneurship means stimulating creative ideas such as creation of business incubators, facilities to provide seed money, and the development of entrepreneurial networks.

Responsibility for taking the initial step must, however, remain in the hands of the politicians, because this is where decisions are taken about the framework conditions. The faster the pace of change, the more important it is for governments to create statutory frameworks with the highest possible degree of flexibility. You all know the buzz words: privatization, deregulation, creation of a competitive environment, and so on.

So what is the role of the private sector?

Industry is able, and also willing, to contribute its experience to flesh out the above three issues.

Let's be more specific about what we have in mind:

1. Project identification: What projects are suitable for a digital bridge campaign?
2. Project selection: The list of projects can provide the basis for further focus. What projects are suitable to be taken up by industry? What projects would be better in the hands of other stakeholders? When making the selection, recognized success stories should be used for guidance.

The private sector will respond wherever it anticipates lucrative investment opportunities. In the area of information technology the opportunities are very encouraging, and there is no doubt that industry will take up the challenge by getting involved in real projects.

Thank you for your attention.

Org Divide



Dot Force Meeting

27-28 November 2000

Tokyo Japan

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2. Programme

Monday, 27 November

Test for Power Point Presentation

8:00-9:30

It is recommended that those who are planning to give presentation using Microsoft Power Point should test respective data during this time period.

Registration

9:15-9:45

Participants are requested to receive the name card at the registration desk in front of the conference room.

Working Session (at the room "KOHUN", PAMIR)

9:45-10:10

Adoption of Agenda

10:10-10:20

Opening Remarks by Prime Minister Mr. Yoshiro MORI (to be confirmed)

10:20-10:40

G8 Perspectives

Presentation by the following representatives (no substantial debates)

- Government: Japan
- Business: Germany
- NPO: US

10:40-12:10

Assessing the Digital Divide - Connectivity and access
Discussion leaders - UNDP (*), ITU, GBD, Brazil, China, Tanzania

Buffet Lunch (at the room "SUIUN", PAMIR)

All participants are cordially invited.

Working Session (at the room "KOHUN", PAMIR)

14:00-15:40

Human capital - Content, knowledge and education
Discussion leaders - World Bank (*), UNESCO, ECOSOC, WEF, Bolivia, India, Senegal

(coffee break)

16:00-17:30

Content and wealth creation - e-commerce, e-government, new vs old economy ?

Discussion leaders - OECD (*), UNCTAD, GIIC, Egypt, Indonesia, South Africa

(*) Session moderator

3. Participants

JAPAN

- Mr. Yoshiji NOGAMI (Chairman)
Deputy Minister for Foreign Affairs
- Mr. Taizo NISHIMURO
Chairman, Toshiba Co., Ltd.
- Mr. Kaoru ISHIKAWA
Deputy Director-General of the Economic Affairs Bureau,
Ministry of Foreign Affairs
- Mr. Koji TOMITA
Director of the Second International Organizations Division,
(Director of the IT Cooperation Division)
Economic Affairs Bureau, Ministry of Foreign Affairs
- Mr. Atsushi KUWABARA
Assistant Director of the IT Cooperation Division,
Economic Affairs Bureau, Ministry of Foreign Affairs
- Ms. Mayumi FUKUSHIMA
Official, IT Cooperation Division,
Economic Affairs Bureau, Ministry of Foreign Affairs
- Mr. Yasuhiro SHIMURA
General Manager, Secretaries' Office,
Executive Assistant to the Chairman of the Board,
Toshiba Co., Ltd.
- Mr. Takashi WATANABE
Group Manager, International Relations,
Industry Cooperation Division, Toshiba Co., Ltd.
- Mr. Shoichiro AMIKURA
General Manager, Industry Cooperation Division,
Toshiba Co., Ltd.
- Mr. Kazuhiro IWATANI
Section Chief,
Information Technology Policy Office,
Cabinet Counsellor's Office on Internal Affairs
- Mr. Hiroshi MATSUMURA
Director, International Economic Affairs Division,
International Trade Policy Bureau,
Ministry of International Trade and Industry
- Mr. Yoshifumi MURASE
Vice-Director, International Economic Affairs Division,
International Trade Policy Bureau,
Ministry of International Trade and Industry

UK

Mr. Richard MANNING
Director- General, Department for International Development
Mr. Vernon ELLIS
International Chairman, Andersen Consulting
Ms. Anuradha VITTACHI
Director, OneWorld International Foundation

Mr. David WOOLNOUGH
Assistant to the Director General
Ms. Elizabeth PADMORE
Mr. Peter BALLANTYNE
OneWorld Think Tank Editor

GERMANY

Dr. Eike ROEHLING
Director General for Technology and Innovation Policy,
New States of the Federal Republic of Germany,
Federal Ministry of Economics and Technology
Dr. Friedrich FROESCHL
President and Chief Executive Officer of Siemens Business
Services GmbH & Co. OHG
Dr. Dietrich MUELLER-FALCKE
Assistant Professor at the German Centre for Research
on Development

Mr. Michael LEIBRANDT
Deputy Head of Section

ITALY

Mr. Vincenzo SCHIOPPA
Diplomatic Advisor to the Minister for Public Administration
Mr. Vincenzo MONACI
Former President of EDS Italia
Prof. Domenico SINISCALCO
Director, Fondazione MATTEI

BOLIVIA

Mr. Rodrigo Xavier ARCE JOFRE
Chief Head of the Unidad de Fortalecimiento Informatico

BRAZIL

Mr. Eduardo Tadao TAKAHASHI
General Coordinator of the Information Society Program
Task Force

Mr. Guilherme DE AGUIAR PATRIOTA
Head of Science and Technology Division,
Ministry of Foreign Affairs

Mr. Eduardo Richardo GRADILONE NATO
Minister-Counsellor, Brazilian Embassy in Tokyo

Mr. Samuel BUENO
Secretary and Head of the Science & Technology Section,
Brazilian Embassy in Tokyo

CHINA

(to be confirmed)

EGYPT

Dr. Raafat Abdelbaky RADWAN
Chairman of Information & Decision Support Center
for the Cabinet of Ministries(IDSC)

INDIA

Mr. Vinay KOHLI
Secretary, Ministry of Information Technology

Mr. S. SUNDARESHAN
Minister (Economic & Commercial) , Embassy of India,
Tokyo

Mr. Thangluna DARLONG
First Secretary, Embassy of India, Tokyo

INDONESIA

Dr. J.B. KRISTIADI
Deputy Minister for State Administrative Reforms

Mr. Aizirman DJUSAN
Assistant Deputy Minister,
Ministry of State for Administrative Reforms

Mr. John WEELLY
Vice Chairman, Indonesia Telecom Association

UNESCO

Mr. Alain MODOUX
Assistant Director-General a.i.,
Sector of Communication, Information and Informatics

Ms. Mary SCHAEFFER-TEISSIER
Secretarial Assistant
of Office of the Assistant Director-General

UNCTAD

Mr. Jean GURUNLIAN
Director UNCTAD/SITE

Mr. Isao ONUKI
Economic Affairs Officer, Transport Section

O E C D

Ms. Sally SHELTON-COLBY
Deputy Secretary-General

Mr. Steve CUTTS
Principal Administrator, Office of Ms. Shelton-Colby

W E F

Mr. Claude SMADJA
Managing Director

Ms. Julianne LEE
Project Manager

Mrs. Yu SERIZAWA
Advisory for Japan to the WEF

GBDe

Dr. Yong-Kyung LEE
Chairman and CEO, Korea Telecom Freetel

Dr. Joo-Young SONG
Vice-President, Internet Business, Korea Telecom Freetel

Mr. Jay SHIN
Economic Analyst, Korea Telecom Freetel

Secretariat

Mr. Bruno LANVIN
Executive Secretary, World Bank
Ms. Kerry Stephen McNAMARA
Knowledge and NPO Expert, World Bank
Mr. Raul ZAMBRANO
ICT Policy Advisor/ Programme Manager, UNDP

Conference Organization Team (Ministry of Foreign Affairs)

Mr. Kiyoshi WADA
Ms. Yukiko Matsuda
Mr. Yuichiro Nishida
Ms. Marie NAKAJIMA

6. Accommodation (Takanawa Prince Hotel, Sakura Tower, New Takanawa Prince Hotel)

Room-to-room calls: Dial 8 then the required room number if the room has a four digit number. If it has a three digit number, dial 80 then the room number.

Outside calls from the hotel: Dial 0 then the required telephone number. For Tokyo, dial 0, 03, then the required number. For international calls, dial 0, 001, then the country code and the required number.

Calls from outside must first be directed through the hotel's telephone switchboard (+81-3-3442-1111 (international) or 03-3442-1111 (domestic)), then ask for the name or room number of the person you wish to speak to.

All the participants are requested to check out individually.

(At Sakura Tower, Takanawa Prince Hotel)

Check-in time is after 15:00

Check-out time is before 15:00

(At New Takanawa Prince Hotel)

Check-in time is after 12:00

Check-out time is before 12:00

If you wish to check in or out at a different time, please contact the Japanese secretariat in the room "SUIUN", PAMIR.

Embassies, European Commission Delegation,
International Organizations Offices

Japan

Ministry of Foreign Affairs

2-2-1, Kasumigaseki, Chiyoda-ku, Tokyo, 100-8919

Telephone: 03-3580-3311

(Office of Deputy Director-General for General Affairs, Economic Bureau

Telephone: 03-3581-3812

FAX : 03-3592-0157)

France

Embassy of France in Japan

4-11-44 Minami-Azabu, Minato-ku, Tokyo, 106-8514

Telephone: 03-5420-8800

FAX : 03-5420-8924

United States

Embassy of the United States of America in Japan

1-10-5 Akasaka, Minato-ku, Tokyo, 107-8420

Telephone: 03-3224-5000

FAX : 03-3505-1862

United Kingdom

Embassy of United Kingdom in Japan

1 Ichiban-cho, Chiyoda-ku, Tokyo, 102-8381

Telephone: 03-5211-1100

FAX : 03-5275-3164

Germany

Embassy of Germany in Japan

4-5-10 Minami-Azabu, Minato-ku, Tokyo, 106-0047

Telephone: 03-3473-0151

FAX : 03-3473-4243

Italy

Embassy of Italy in Japan

2-5-4 Mita, Minato-ku, Tokyo, 108-8302

Telephone: 03-3453-5291

FAX : 03-3456-2319

Canada

Embassy of Canada in Japan

7-3-38 Akasaka, Minato-ku, Tokyo, 107-8503 -

Telephone: 03-5412-6200

FAX : 03-5412-6303

Indonesia

Embassy of the Republic of Indonesia

5-2-9, Higashi-Gotanda, Shinagawa-ku, Tokyo, 141-0021

Telephone: 03-3441-4201

FAX : 03-3447-1697

Senegal

Embassy of the Republic of Senegal

1-3-4, Aobadai, Meguro-ku, Tokyo, 153-0042

Telephone: 03-3464-8451

FAX : 03-3464-8452

South Africa

Embassy of the Republic of South Africa

4F., Zenkyoren Building, 2-7-9, Hirakawa-cho, Chiyoda-ku, Tokyo, 102-0093

Telephone: 03-3265-3366/9

FAX : 03-3265-1108

Tanzania

Embassy of the United Republic of Tanzania

4-21-9, Kamiyoga, Setagaya-ku, Tokyo, 158-0098

Telephone: 03-3425-4531

FAX : 03-3425-7844

World Bank

Tokyo Office of the International Bank for Reconstruction and Development
and the International Development Association

Fukoku Seimei Bldg., 10F.,

2-2-2, Uchisaiwaicho, Chiyoda-ku, Tokyo, 100-0011

Telephone: 03-3597-6650

FAX : 03-3597-6695

UNDP

United Nations Development Programme Tokyo Office

United Nations University Headquarters Bldg., 8F.,

5-53-70, Jingumae, Shibuya-ku, Tokyo, 150-0001

Telephone: 03-5467-4751/2

FAX : 03-5467-4753

OECD

OECD Tokyo Centre

Landic Akasaka Bldg., 3F.,

2-3-4, Akasaka, Minato-ku, Tokyo, 107-0052

Telephone: 03-3586-2016

FAX : 03-3584-7929, 3586-2298

big divide

Global Digital Opportunity

Thomas Kalil

thomas_kalil@opd.eop.gov

The White House

November 21, 2000

Is IT relevant to development?

■ Yes, but:

- Not an end in itself
- Clearly only a piece of the development puzzle (along w. health, education, clean water, debt relief, sound macro policies, etc.)
- Will be used in different ways (e.g. Chinese use of pagers)
- May require technology & business model innovation

Is IT relevant to development?

- Price discovery for rural farmers
- Participation in global e-commerce (could reach \$7 trillion by 2004)
- Societal applications (e.g. e-learning, tele-health)
- Formation of global “communities of interest” around development issues
- Democratization

Digital Opportunity Taskforce

- Launched at G8 summit in Okinawa
- Composition - G8, developing countries, private sector, NGOs, international organizations
- UNDP/World Bank secretariat
- Tasked with producing a report for next G8 summit - June 2001 (Genoa)

Digital Opportunity Taskforce

- Range of issues that dot force will examine:
 - Policy, regulatory framework
 - Access
 - Human capacity building
 - Applications of IT for development

Examples of existing activities

- Bilateral: USAID Leland Initiative, Government of Japan commitment
- International Organizations: World Bank InfoDev, Development Gateway
- Business and NGO-led (GBDe, WEF, readiness initiative)
- Regional (e-ASEAN, Africa Information Society)
- Grassroots (e.g. GrameenPhone)
- And many others ...

Interesting ideas

- Policy can encourage both competition and universal access (e.g. Dutch auctions)
- Emerging business models for serving poorest 3 billion people
- New technologies for dramatically reducing access costs (e.g. desktop chip manufacturing, \$50 Linux server)

Hopes for dot force

- Good job of outreach to developing countries, industry, civil society
- Concrete “action agenda”
- Catalyst for real commitments from different stakeholders
- Creative thinking about how to continue cooperation post-Genoa

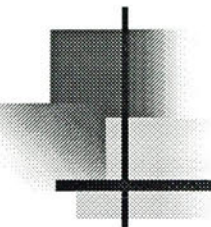
Possible outcomes

■ Human capital initiative

- technical training
- end-user training (doctors, educators)
- content creation
- regulator-to-regulator training
- Support for developing country entrepreneurs

Possible outcomes

- Increase number of tele-centers
- Demonstrate applications of IT related to development
 - Connect hospitals and clinics - public health network
- Encourage businesses that target poorest 3 billion



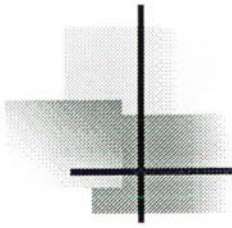
Proposed Next Steps For the Dot Force

November 28, 2000

Thomas Kalil

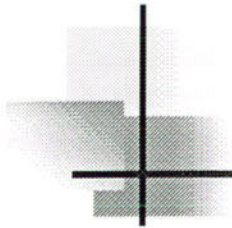
The White House





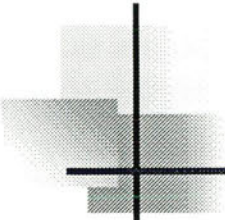
Working groups

- Policy, network readiness
- Access
- Human capital
- E-commerce and e-business
- Societal applications (e.g. e-health, e-learning, e-governance, cultural heritage)



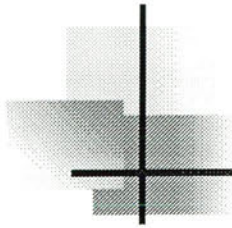
Working group tasks

- Existing activities
- Promising practices
- Seminal reports, articles, web sites
- Proposed goals, with metrics if possible
- Suggested initiatives to meet goals
- Roles and responsibilities of actors
- Open questions (what we don't know)



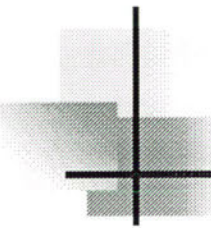
How will we get all of this done?

- Archived mailing lists with expert level participation
- Written submissions, posted on Web site
- At least one face-to-face meeting in January or February at experts level
- One chair per working group



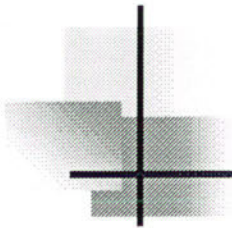
Policy, network readiness

- Goal: technical assistance for “digital opportunity” strategy for every developing country that wants it
 - Goal: capacity-building for independent telecom regulator to support pro-competitive policies
 - Question: what are barriers to telecom reform (e.g. loss of foreign exchange) – appropriate support for transition costs
- 



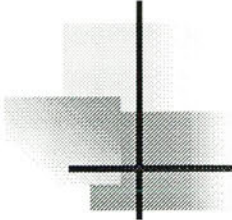
Access

- Goal: Scaling number of tele-centers and other forms of shared access – on a sustainable basis
 - Goal: Increase academic & industry computing R&D for unique challenges of developing countries (ultra-low cost, lack of power, multi-linguality, lower levels of literacy)
 - Question: what policies will promote both competition and universal access?
- 



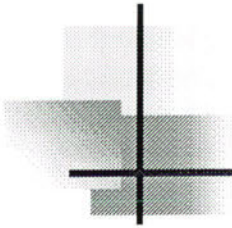
Human capital

- Goal: Expand availability of training for:
 - IT workers
 - End-user training (doctors, educators, NGOs, gov't agencies)
 - Content developers
 - Regulator-to-regulator
 - Entrepreneurs



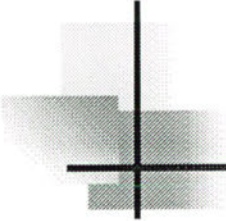
Human capital

- Questions:
 - Where are the needs most critical?
 - For a given type of training, what mix of support make sense? (workshops, upgrading local universities, distance learning, scholarships)
 - Should dot force endorse creation of a Global NetCorps?
 - How could developing countries take advantage of "networked diaspora"?



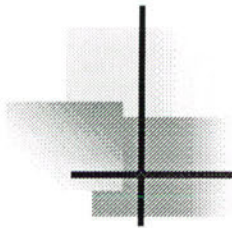
E-commerce, e-business

- Goal: increase capacity for developing country entrepreneurs to be engine of growth and job creation
- Goal: encourage new business models for serving poorest 3-4 billion with IT products and services



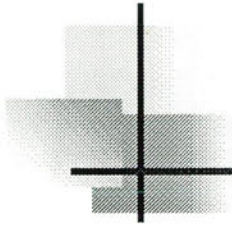
E-commerce, e-business

- Questions:
 - What changes need to be made in local business environment (cost of being “legal”)
 - Would private sector be willing to establish targeted investment funds for this purpose?
 - Is gov’t “risk-sharing” needed? If so, what changes in ODA would be necessary?
 - What forms of intermediary/support institutions are needed?
 - What new market opportunities are created for developing countries?



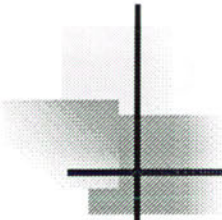
Societal applications

- Goal: harness power of IT for most pressing developing challenges in areas such as:
 - Poverty reduction
 - E-health
 - E-learning
 - E-governance
 - Cultural heritage



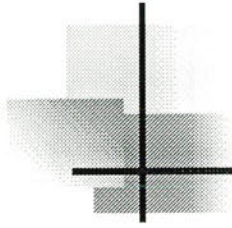
Societal applications

- Questions:
 - Should dot force endorse new pilot projects? If so, what would distinguish them from current efforts (e.g. scale, new kinds of projects being supported)?
 - What are some strategies other than pilots that should be considered?



Overall questions

- How do we make this a “presidential” level issue?
 - How can the dot force support the implementation of already well-defined regional and national strategies?
 - Can we have large-scale efforts that also take advantage of grassroots knowledge, creativity, and participation?
 - How can we increase learning between mainstream development community and the IT community?
- 



Overall questions

- What level of coordination and cooperation between the plethora of national, regional, global and private sector efforts is desirable and achievable?
- What should happen to the dot force and international cooperation more broadly post-Genoa?

Room Document No.1

(27 November 2000)

Future Work of the Digital Opportunity Taskforce (*dot force*)

1. The primary task of the *dot force* is to produce a report to be submitted to the G8 Leaders before their meeting in Genoa, Italy in July 2001. The report will be based on the discussions in the taskforce, but active efforts should be made to engage stakeholders outside its membership so as to make the final report as representative as possible. Such engagement in itself should contribute to an enhanced public awareness of the challenge of international knowledge and information divide with a view to catalysing greater global efforts to address this challenge.

Drafting Process and Future Meetings

2. The World Bank/UNDP Co-secretariat will be responsible for preparing a preliminary draft of the report. The Co-secretariat will launch this process immediately after this meeting, taking account of its conclusions, in particular, the draft outline of the final report, and seeking, as necessary, advice from the taskforce members as well as the other stakeholders. The members are also encouraged to assist the Co-secretariat by submitting written contributions.
3. The taskforce should aim to finalise the report by the end of May, 2001. It is assumed that two plenary meetings of the taskforce are sufficient to complete this task, once in early spring to examine the preliminary draft, and once in May to finalise it. The Italian Government has indicated its willingness to host the second meeting in Naples in mid-March in conjunction with a Global Forum meeting scheduled to take place there on 15-17 March, 2001. This offer should be accepted with gratitude.
4. A venue for the third plenary meeting should be decided on the basis of an offer to be made by an interested member. It would be preferable, however, to hold this meeting in the region other than Asia and Europe, where such meetings will have already taken place, in order to ensure a broadest possible scope in the taskforce's activities.
5. In addition, Chair may organise informal co-ordination among members to facilitate the drafting process, as and when appropriate. Such meetings may be held at the margin of the relevant international gatherings, which will give an opportunity to

interface with the non-member stakeholders. Electronic means may also be utilised to facilitate the communication between the members. Chair will ensure transparency in such informal co-ordination.

6. Another option which may merit our consideration is creation of working groups within the taskforce, which are devoted to specific themes or subjects. The option could help the taskforce provide more structured and in-depth inputs to the Co-secretariat, but there is a practical question as to whether or not such an exercise could be accommodated within the very short time frame now foreseen.
7. In view of the foregoing, a tentative time table for the drafting process can be summarised as follows:

2000	27-28 November	First Plenary Meeting (Tokyo)
	Before Christmas	Finalise the draft outline (if not agreed in Tokyo)
2001	Mid-January	Deadline for written contributions
	End February	Circulate a preliminary draft
	Mid-March	Second Plenary Meeting (Naples)
	May	Third Plenary Meeting
	End May	Submit the final report

Stakeholder Engagement

8. The taskforce can engage the stakeholders outside its membership through, *inter alia*, a) *ad hoc* participation in the meetings, b) consultations through the Co-secretariat as well as members themselves, and c) "outreach" activities targeted at the wider public.
9. Chair may extend invitation, in consultation with the members, to the nonmember stakeholders to participate, on an *ad hoc* basis, in the future meetings. These *ad hoc* participants may include regional stakeholders, as in the case of the Tokyo meeting, as well as representatives from the technical bodies such as WTO and WIPO.
10. The Co-secretariat will, as necessary, consult the non-member stakeholders in the process of preparing a preliminary draft of the final report, while keeping members informed of the outcomes of such consultations. It would be useful for the taskforce to indicate a list of questions which need to be addressed in this process. In addition, the members may instruct the Co-secretariat to conduct consultations

with a specific group of stakeholders on their behalf.

11. Furthermore, it is important to recognise that the members themselves could also serve as a useful conduit between the taskforce and non-member stakeholders. Developing country members, in particular, could play a vital role in bringing the views of their respective regions to the attention of the taskforce.
12. In terms of "outreach", the possibility of creating a Website has already been under consideration on the basis of an offer made by the European Commission.
13. The taskforce should also consider whether or not to organise some form of dialogue with civil society representatives. In this regard NPO members may assist the taskforce in designing an appropriate modality of such consultations.

Ideas for G8 dot force

A 'New Deal' to bridge the digital divide

Headline summary

Earlier this year the UN Secretary General called on all member states' governments to review their policies to ensure they were not denying their people the opportunities offered by the digital revolution. The G8 supports his call.

While the policy options are far from simplistic, there is no mystery about the basic goal. Each country needs to make the transition from state-run telecoms monopolies to open competitive environments, and cut tariffs on imported hardware. Without reform, the costs of using the new ICTs will remain high and access remain restricted. But we recognise that making such reforms poses real challenges for all governments, certainly in the short term.

Therefore, the G8 will commit to helping the least developed countries through the first few years of reform, with a package of technical assistance, drawing on best practice from around the world, and a range of measures that will help cut the cost of accessing the Internet for people in poorer countries.

For those least developed country governments that are serious about increasing their population's access to affordable communications and the Internet, through implementing appropriate reforms tailored specifically to the needs of that country, G8 nations will commit to supporting those governments in a number of ways. This would seek to build on developing countries' existing strategies in this area. This support could take the form of one or more of the following options and would be provided either as part of bilateral development assistance from G8 countries, or through a more co-ordinated G8 dot force initiative:

1. Assist each country to develop its own national strategic plan for transition to the information society, through the provision of expert technical assistance, as requested by developing country governments. This assistance would help them work through the practicalities and details of a reforms strategy that is tailored to the needs of their particular country. This would include strengthening independent, in-country capacities to enable developing countries map out their own policy agendas and priorities.
2. Strengthen the national regulatory capacity in developing countries by covering the costs of a good market salary for an effective independent regulator (plus team?) and/or by providing free expert technical advice to that regulator, as requested.
3. Support regionally integrated activities that seek to cut the cost of accessing high bandwidth, without distorting the market. This could strengthen regional networks of ISPs, telcos and portals, enabling them to share and develop their own infrastructure and Internet services.

November 2000

4. In those countries that allow open/licensed use of the most cost effective and appropriate technology for increasing access to their population (e.g. wireless, two-way VSATs, etc.) we will help to stimulate the expected developmental impact in that country through a range of possible measures. These could include direct support for the start-up (and running?) costs for local government, key education establishments, NGOs, information brokers and intermediaries, etc.).
5. Help to establish regional IT clusters or 'incubators' through a range of measures that could include direct support and/or advice on the role of tax breaks, enterprise zones and other incentives.
6. Multiply community access points to the internet in public places (administrations, universities, civic centres, etc.) through associations or purely private initiatives; financial support could be offered according to various mechanisms depending on the recipients and the objective of obtaining a critical mass of players to kick start the market.
7. Support the work of a range of local organisations seeking to create useful local content.
8. Find innovative ways of accelerating the availability of ICT related training, especially for young people.

A few concrete ideas from the above list are currently being explored with African partners to assess their viability and likely impact across Africa.

In addition to these 'New Deal' activities which would focus on helping individual countries, the G8 dot force will also seek to use its influence to:

- a) Facilitate discussions and raise awareness of the growing digital divide.
- b) Work towards ensuring that G8 Governments' procurement practices for any appropriate ICT related contracts do not discriminate against companies from developing countries seeking to carry out that work locally. As a first step towards this, we will set up a G8 'ICT Contracts' website, on which any G8 government can place a copy of its adverts for ICT related work.
- c) Establish an effective mechanism for making low cost, second hand (but still useful) ICT equipment readily available in least developed countries, for those who can make good use of it (i.e. strengthen the emerging NGO based recycling schemes, fed by equipment from the private sector and G8 governments).
- d) Highlight success stories and lessons learnt from developing countries that have seen increased access and reduced costs.

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- e) Encourage the private sector to produce ICT equipment, which is tailored specifically and is relevant to the needs of poorer communities in developing countries. This could include exploring the various options for generating a market pull for genuinely affordable and accessible machines designed to bring e-mail or Internet connectivity to poor rural communities, etc.
- f) Examine methods of stimulating local markets for the use of ICT. Introducing ICT into government services ('eGovernment') not only means that governments reap the benefit of new technology in delivering services more cheaply and efficiently to citizens but it also acts as a stimulus for the ICT market. We will look at a number of ways of encouraging eGovernment in less developed countries and at stimulating the demand side more generally
- g) Encourage countries to reduce or remove the high import tariffs on imported computer and telecommunications equipment (which act as a deterrent to users, ISPs and telcos) where such a move would be economically beneficial for that country.
- h) Identify any specific and temporary shortfall in resources expected to result from the transition process to the information society, and prepare new loan suitable mechanisms.

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