E-Government: What is at Stake for the Developing World?

Advances in Information and Communication Technology, particularly the Internet, have dramatically changed the daily relationships between people, businesses and government.

E-government has emerged as a discipline in itself, aimed at refining the interaction between government, business and the community. This theme was debated during the Third Global Forum, which took place in Naples, Italy, March 15-17, 2001. This major event was attended by over 900 people from 121 countries, and demonstrated e-government is a subject generating growing interest in both industrialized and emerging countries.

In this issue of the eXchange, we present an overview of e-government initiatives around the world, with a focus on the needs of developing countries. We have also asked Subhash Bhatnagar - Professor of Information Technology at the Indian Institute of Management in Ahmadabad, India, and currently working as a consultant with the World Bank in the area of e-government - to give us some examples of e-government applications in developing countries which best illustrate the gains of ICT use in the public sector.

The main e-government initiatives promoted by the World Bank, as well as the projects promoted by infoDev and the Development Gateway are also presented in this issue of the eXchange.

"infoDev promotes innovative projects on the use of information and communication technologies for economic and social development, with a special emphasis on the needs of the poor in developing economies."
E-Government: Lessons we can Learn from Developing Countries

It is widely recognized that e-Government is one of the key components in government strategies to bridge the ‘digital divide’. When used in the public sector, ICTs can support transparency, make government more accountable, and increase social equity. The impact can be seen not only in terms of increased efficiency and effectiveness of public services, but also in terms of greater transparency of government transactions, and citizens’ empowerment. Bridging the digital divide at the national level is essential to adopt and implement e-government policies, foster wide participation in activities such as contract bidding, and increase communication from citizens and access to information.

What is the development potential of e-government in emerging economies, and how can it be used to empower the weakest sectors of society? There are several examples of successful e-government projects in developing countries, that are in many cases, demonstrating to be farther ahead in promoting innovative e-government initiatives than most industrialized countries.

The e-procurement initiatives promoted in Mexico and Chile are two well-known examples of how innovation and the use of ICTs in government procurement systems can lead to improved efficiency and considerable cost reductions. It has been estimated that the new Chilean e-procurement system (www.compraschile.cl) will save the government at least $200 million a year - which is equivalent to 1.4 percent of central government spending in 1997.

E-government is not only a question of improving the efficiency of the State. It is also a way to improve the relationship between the government (central and local) and the citizens. ICTs - if accompanied by re-engineering processes in government organizations - can considerably simplify bureaucratic processes, and make citizens’ life much simpler. In Chile, 100% of tax payments are currently made online; in Brazil the share is a bit lower, about 85%. In Brazil, the Federal State has promoted a state-wide computerization program covering all levels of the administrative spectrum. In the Brazilian State of Bahia, citizens can use a public computerized system - the SAC (Serviço de Atendimento ao Cidadão) - to access a variety of services, including the issuing of ID cards, company registrations, job offers, public housing requests, legal assistance, voters registration, and the issuing of passports, since 1995.

infoDev’s Projects
In the Government sector, infoDev has supported several pilot initiatives.

"From Accounting to Accountability: Managing Accounting Records As a Strategic Resource" is an infoDev-funded project which has been developed in two Sub-Saharan African countries - Namibia and Zimbabwe. The objective of the infoDev project is to provide the instruments for improving transparency and financial accountability of the government in the two countries. The project strengthens public sector financial management by focusing on the quality of records needed in government accounting systems, and is expected to provide local administrators with a framework for implementing effective records management.

"Enhancing Transparency in the Local Government of Sofia” is another project funded by infoDev in the field of e-Government, and is aimed at improving the performance of the municipal government of Sofia. After developing a feasibility study and an implementation plan for the creation of a Municipal Government Management Information System, the project will conduct a test of the system’s implementation. The project is aimed at achieving government decentralization and effective management, in order to enhance government transparency and efficiency. The project is also aimed at promoting citizens’ participation in decisions and events affecting the local administration. It is expected that this initiative will be a meaningful test of the impact
and effectiveness of ICT applied to the modernization of local administrations in transition economies.

Another project funded by infoDev in the e-government sector is the "Reference Model for Government Treasury Systems".

The objective of this project is to develop a Reference Model for Government Treasury Systems to assist governments in increasing the efficiency, accountability and transparency of their financial management systems through the application of ICTs.

**E-Government Toolkit**

With the support of the Italian government, infoDev has recently launched a request for proposal for the development of an E-Government Toolkit for Developing Countries, an Internet-based platform designed to share information, tools, and services about for the promotion of best practices on e-government projects worldwide. infoDev will award a grant of up to $60,000 to develop the toolkit. The initiative addresses the needs of emerging economies and will be available to assist countries seeking to implement citizen-focused e-government programs.

The general outline for the toolkit shall regard broad topics, including a general e-government overview, an e-government benchmarking methodology for developing nations, and a diagnostic tool, enabling developing countries to systematically examine e-government readiness indicators.

For further information, please visit www.infodev.org.

---

**Third Global Forum on E-Government**

Hosted by the Italian Government, the Third Global Forum took place in Naples, Italy, on March 15-17, 2001. With over 900 participants from 122 countries, the Forum was a valuable contribution to the wide-ranging debate regarding the key challenges facing governments in the design and implementation of e-government strategies.

The Forum approached the e-government theme from several perspectives, including governance issues, the impact of ICTs on government organizations, the challenges related to implementing e-government initiatives - including the delivery of services to both citizens and businesses - and the digital divide and international cooperation. A number of speakers stressed the importance of these potential developments for the strengthening of governance, in terms of better accountability and transparency. Mamphela Ramphele, Managing Director of the World Bank, commented that nothing is more powerful in combating corruption than conducting transactions openly and with public knowledge of the rules and criteria to be applied. It was generally recognized that these benefits are not only potentially available to the developed world but are a key factor in the development process. Experience has demonstrated the value of ICT in improving services even for the most disadvantaged communities. But for these benefits to be realised, the developing world needs access to technology, lower costs of access and the training to use it effectively.

Italian Prime Minister, Giuliano Amato, emphasized in his speech that ICT training is a top priority in fighting the digital divide, and all stakeholders, especially the private sector, can play a key-role in providing high quality training and fill this gap in developing countries. The need to reinforce policies for international cooperation to bridge the digital divide was underlined by many parties, including Nitin Desai, Under Secretary General of the United Nations and Franco Bassanini, Minister for Public Administration of Italy. In the final remarks of the Forum, it was in fact recognized that the full potential of ICT has yet to be realized even in the more advanced economies.

The Third Global Forum also hosted a series of seminars, which were attended by some 100 delegates from developing countries in the three days preceding the Conference. The seminars - organized by the United Nations Organization and sponsored by several organizations, including the World Bank through infoDev - were aimed at sharing best practices and methodologies for the implementation of e-government projects. The Forum also hosted an exhibition, with organizations showcasing their technologies, projects and solutions in the field of e-government. Sponsor organizations included several private groups, such as Hewlett Packard, Telecom Italia, and Cisco Systems, local and central government administrations, and international organizations, including the United Nations, the FAO and the World Bank.
Can information and communication technologies help build SMART (Small, Moral, Accountable, Responsive, and Transparent) governments? We have asked Professor Subhash Bhatnagar to provide some examples of e-government applications in developing countries that show that the gains of ICT use in the public sector are real.

The theme of e-government is increasingly becoming a ‘hot topic’ in the development community. What are the main reasons, in your opinion, behind all this interest?

I think there are several reasons why e-government is becoming a hot topic. The first is that citizens in these countries are already experiencing a vast increase in service levels in e-commerce, vis-à-vis the private sector. They feel that if the private sector can make systematic improvements in service delivery, why can’t the government use the same technologies? So, the citizens in some countries are, in fact, asking the government to go online. There are other reasons as well: in the last decade, many countries have gone through a process of economic growth. There has been good growth, 6 to 10 percent over the last seven years, and I am talking particularly of countries like China and India. Having done that phase of economic policy reform, the next phase of reform is really governance reform, and what better way to induce governance reform than information and communication technologies? More-demonstrated, the best conse-over, as some countries have already quence of their experimentation and innovation in this field, there is a competition taking place with developed countries. So, for example, Brazil launched an electronic voting system; they are very proud that it is a better system than that of the United States, and it seems this has become an incentive for these countries to catch up with the developed world. Another example is in the place where I come from, Gujarat, in India: they issue a driver license which is a smart card, (it has a chip in it), and there are very few places in the world where they actually issue these kind of licenses. Also in this case, Gujarat thinks they are ahead of the rest of the world, and I think this acts as motivating factor which is driving governments to go electronic.

I think, however, this interest has also something to do with the spread of the Internet, that in the urban areas of many developing countries is starting to create a critical mass, not as considerable as in most developed countries, but large enough to lead the government to deliver online services. In the large and highly urbanized countries in Latin America or Asia, it has become possible to deliver these services. In some places where e-government has been introduced, it has shown that it can work, and it can have a wide impact on government efficiency and effectiveness.

During your intense research experience conducted both in India and with the World Bank, what have been the most interesting cases observed of e-government project in terms of impact on democracy, transparency and poverty alleviation?

I think the most dramatic impact so far has been in service delivery, on making the service more convenient, cutting the time to deliver the service, so if you received a driving license in fifteen days now you can get it in a day, if you could register your real estate property in a month, now you can do it in half an hour; those are the kind of improvements that have already taken place. With the improvement of service delivery, however, certainly transparency has increased and the corruption has come down. Often in developing countries, just because it took so much time, you needed to pay the so-called ‘speed money’ to speed up the process, as manual operators had the power to block the processing of your application. Now that these processes are entirely automated, there is
I would say that in many developing countries that ideal has not been achieved, but some initial changes have been made. In many developing countries, especially the poor people are alienated from the government, because the government never thinks about them. So I think that initial efforts that are being made are at the level of sharing information with poor people on the web. When you begin to offer services to poor people, they feel that they are being cared for, and that the government is once again thinking about them. I know that in some parts of India an experiment is being conducted of sharing development plans with the community: the number of schools that are going to be built in a particular local community, the locations and learning programs available, and so on.

Certainly, rural people are seldom given access to this information, but it is picked up and then circulated by the media, NGOs and grassroots organizations. In the end, the rural people feel involved and I think that is the starting point of e-democracy, when you begin to involve people in the process by cross-sharing information, by delivering services, and then having them comment on the development plans that are proposed for the future. I would say that some of that is happening, for example, in Latin America or in countries like India.

Regarding transparency, let me give you an illustrative example. In South Korea, the municipal administration of Seoul has undertaken an effort to improve transparency. They wanted to reduce corruption in the issue of a variety of licenses, and they have built a system where the citizens can track the progress of their license from the day they apply to the time they receive it. Every license has to go through several offices, and in the earlier system, nobody knew where the application was stuck, or why it was stuck. Now on the web, an applicant can find out where exactly the application is, how long it has been in a certain office and why it is there. So, if somebody is holding up an application unnecessarily, there is somebody looking at this data, using this data to take direct action against the bottlenecks, and sometimes against those people who are corrupt. Sometimes, the web can be used to shame the corrupt people: In India, the Chief Vigilance Commissioner has put up a web site to list the names of senior officers in the Indian bureaucracy who are under investigation; these are examples of governments, sharing information with their citizens in an attempt to improve transparency. In regard to the impact of e-government on poverty alleviation, I think that this a difficult goal to be achieved, because it would assume that e-government reaches the poor. Infrastructure in many countries is insufficient and the poor do not have access to the net. But I can also give you a few examples where this is getting done, as in the Indian dairy sector. India has become the largest milk producer in the world this year, and that has largely happened because, in India, the cooperative sector is now able to collect the milk at the doorstep of the milk producer. Twice in a day, 365 days a year, people come and pour the milk (it will be either refrigerated locally or transported) at rural collection centers. In 3,000 such locations, where computers are being used to process the transaction of buying and selling of milk a great impact has been made, because before, people were not paid the proper amount for the milk; the payment depends on the level fat content in the milk. Since the fat content could not be measured instantaneously, there used to be a great deal of corruption at these collection centers: milk was pooled and tested afterwards, and producers were not paid the
right amount for the fat content. Now, with the computerized system, a plastic card identifies the seller to the computer, the milk is weighed electronically, and then, through a semi-automated system, the fat content is measured and displayed in half a minute. The weight and fat content information is transferred to a PC which immediately prints the amount due and it is paid out. So, both efficiency and transparency has been greatly improved, and even the small producers are receiving what is due to them. Moreover, milk producers are now experimenting with some pilot initiatives, being connected through the Internet to a ‘dairy portal’, from which they can access information on how to improve their productivity, or recognize if their cattle has a disease. A dairy unit can interact with its collection center through the system, providing many services, including veterinary assistance, artificial insemination services.

In this case, knowledge and information have directly benefited the rural communities and had an impact on poverty alleviation. Another interesting example is in Malaysia, where they are trying to share knowledge to improve productivity on the farms and not only knowledge from experts, but also from one farmer to another. This website is completely operated in the local language, and through this system, they think that productivity can be increased. Another way to impact rural poverty is by enabling the rural people to do e-commerce, which can give greater opportunity to smaller producers to sell to distant markets and to know the market prices, have better negotiating power, and sell their products to alternative distribution chains. However, I think that more can be done through e-government to make the impact on poverty even wider and more pervasive.

What are the main challenges still to be met, and the axes of future research activities in the field of e-government?

In isolated pockets, innovative e-government applications have already been implemented. However, the real challenge is to have a wide-scale impact. In a large country like India, if you do something in 200 or 3,000 places where the number of villages is 600,000, it is not going to create an impact. I believe the real challenge is to make e-government widespread, and that means that the digital divide problem will have to be solved, the net access will have to be taken to many rural areas, and many more kiosks will have to be created. This is a challenge because what happened so far is that in developing countries, a few political leaders and civil servants who believed in the idea of reform have innovated, but the vast majority have not. A major task is to build institutional capacity for governance reform, because once the capacity is there, people will use the technologies to deliver services and information.

Research areas would have to address rural poverty. But what really seems to be missing - both in e-government and in e-commerce - is documented research on the impact created by these initiatives on economic development. The information we have is largely anecdotal: we have stories about something happened in India, in Brazil, and so on, but we really don’t know whether the costs and benefits are commensurate. You can use this technology to do anything, for example, you can use technology to teach the alphabet to rural children, but the issue is whether the investment is worth the outcome that is reached. We need better assessment of preparedness of countries to implement e-government. I think these are some areas where the World Bank and similar institutions need to focus.

An important challenge is to create a greater awareness about e-government within the multilateral institutions. Application of ICTs in sectors like education, health, or transportation, is not being deployed as it ought to be. Another challenge is to motivate civil servants and project leaders in developing countries to be more involved with reforms and to use IT as an enabling technology for innovation in their own spheres of work.

These are the challenges the World Bank should address in the area of e-government, and these are also the challenges that I try to meet with my own little work. We are now trying to collect case studies and disseminate them in the World Bank’s e-government website (www.worldbank.org/publicsector/egov). We hope that the people who access these case studies - civil servants but also Bank’s staff - may learn more about what can be done and how it can be done, what has been more successful and what is the potential of this technology.
The World Bank's Development Gateway Initiative has recently launched a topic section on e-government. The objective of the new topic page is to share information on e-government, with a specific emphasis on the needs of developing countries, and to discuss the development opportunities tied to e-government.

The e-government web page is specifically targeted at the development community and offers a rich base of information, best practices, and case studies on e-government initiatives. Launched at the beginning of March 2001, the e-government topic page already contains more than 270 items.

We have asked Amy DuRoss, the "guide" of the e-government topic page of the Development Gateway, to help us "visit" the site.

**Questions for Amy DuRoss**

**Could you give us an overview of the e-government topic page of the Development Gateway?**

The Development Gateway's e-government page is an interactive knowledge-sharing website that offers the same features as other topical pages on the Gateway: issue-based discussion forums, Q/A features, and a host of content related to e-government and developing nations. We are also in the process of planning an e-procurement platform among other services to be hosted on the site.

**What is the status of the ‘knowledge’ available in this field - especially for developing countries?**

There is a real dearth of relevant knowledge around e-government for developing nations because the field is still so new. As more and more e-government programs are being implemented and documented in western nations, developing nations are able to use this information in part as a guide. However, much more work is necessary to address specific issues and challenges that developing nations face, in order to help them deploy ICTs to re-engineer governmental processes and interactions. Another challenge to developing a 'storehouse of knowledge' about e-government is the topic's breadth. Investigation into programs enabling greater citizen access to information and participation in the governmental process (C2G), for example, needs to occur simultaneously with the study of inter-governmental data and funds exchange programs (G2G), procurement platforms (B2G), and online voting mechanisms, among many other e-government sub-topics.

Recently, the World Bank has made some new efforts in generating the storehouse of knowledge necessary to inform best strategies on how to raise sufficient funds and ensure the participation of both government and citizens in e-government programs among the developing world. New World Bank initiatives include: the E-Government Case Study Project (www.worldbank.org/publicsector/egov); infoDev's E-Government Toolkit for Developing Nations (www.infodev.org); COMENT-IT, a global survey on online governance; and the E-Government Procurement Forum, an electronic venue for dialogue and knowledge-sharing committed to improving the transparency, efficiency, and economy of the public procurement function.
What feedback have you received so far from the e-government page users?

Our feedback has been minimal because the site is still in the pilot stage, having only been live for one month. At last month’s Third Global Forum in Naples, Italy, however, we were lucky to meet with a group of CIO’s and Ministers from a host of developing nations who used the site and offered valuable feedback, much of which is being incorporated into our next versions. In addition, the Gateway team has heard a consistent and loud call from our client population, specifically our Country Gateway teams, for more targeted information and resources around e-government, which we hope will in turn encourage the appropriate organizations to help us to provide it and to begin seriously funding e-government programs within these countries.

What strategies are you pursuing to increase content creation from developing countries, and to share this knowledge also within the World Bank group?

In addition to promoting our online e-government discussion forums hosted on the topic page and beginning a scaled marketing program to educate and encourage users to post their own information on an ongoing basis, we are working directly with our Country Gateway Teams to create e-government workshops. We are also co-sponsoring a two-day workshop on e-government - which will take place in Washington DC, on June 11-12 2001. The event will involve several World Bank’s departments, and will touch upon the most important issues and opportunities in e-government. For this event, we are also bringing a selection of representatives from the developing world to educate us about their current e-government programs which are already demonstrating early increased efficiencies and gesturing to the vast future potential for these platforms.

More E-Government Sites

Governance and Public Sector Reform Home Page — (www1.worldbank.org/publicsector) The Governance and Public Sector Reform Group of the World Bank brings together people working across the Bank on lending and non-lending activities relating to core public sector reform, including civil service reform, public expenditures, tax policy and administration, decentralization/intergovernmental fiscal relations, and generic issues in public service delivery. Two key objectives of the Public Sector Group are: to design and help implement the Bank’s anticorruption strategy, and to strengthen and deepen the Bank’s work on public sector institutional reform.

University of Naples, Italy: E-Government Portal — (www.egov.it/tala/explorer/index.html) Egov.it has been developed by a research team of the University of Naples Federico II, under the sponsorship of the Dipartimento della Funzione Pubblica and is being launched in conjunction with the Third Global Forum on Reinventing Government, Naples, March 15-17. Its main aim is to provide an introductory overview of the fast growing domain of e-government websites. The reader will find access to 1,000 selected sites with a brief description & the link for direct access. An institutional directory provides unclassified direct access to some more 10,000 e-gov sites worldwide. Sites have been grouped by country and conference theme. A sign in form is available for sending comments and proposals to info@egov.it

Andhra Pradesh State: Integrated Citizen Service Centre — (www.andhrapradesh.com) As part of its Twin Cities Network Services (TWINS) initiative, the Government of Andhra Pradesh State in India recently inaugurated the first Integrated Citizen Service Centre. Not only does the ICSC place the citizen interface for 18 services from twelve government departments under one air-conditioned roof, it actually allows all services to be delivered from any desk in the building. Services include payment of utility bills and taxes, registration of births, issuance of driving and vehicle licenses, and information on government procedures.
ICTs for People with Disabilities: Can they Make a Difference?

InfoDev, in partnership with the Organization of the American States, is currently supporting a project aimed at helping people with disabilities learn more about ICTs, and use technology to improve the quality of their working and home lives.

In this article, Rafael Hernandez, Task Manager of the project at the World Bank, gives us an overview of the latest advancements achieved in the field of ICT applications for people with disabilities, and tells us more about this project, which is being implemented in Central America.

More than one century ago, the need to develop information tools for people with disabilities gave birth to some of today's most commonly used technological devices. Pioneer information technologies, such as the typewriter and the telephone, were specifically conceived and designed to address information needs of people with disabilities.

The first typewriter proven to have worked was built by Pellegrino Turri in 1808 for his blind friend Countess Carolina Fantoni da Fivizzono. Several further models were also designed for blind people. Today, the marketplace offers keyboards that allow Braille code reading capabilities while still keeping all the features needed by non-blind people. Although the cost of such Braille capable and non-Braille keyboards is almost the same, most devices using keyboard-based interfaces (typewriters, computers, calculators, industrial equipment, musical instruments, games and so forth) available today in schools, public offices and almost elsewhere, cannot be used by blind people.

The invention of the telephone was also inspired by the dream to overcome a disability. Working with his father, an elocution teacher and inventor of “visible speech” techniques to help guide people with deafness to learn to speak, and attempting to help his mother and wife who had hearing loss, Alexander Graham Bell started experimenting on how to transmit speech to a remote party by means of a visual language for people who had hearing disabilities. His research activity would lead him to the invention of the “electrical speech machine” — later called the “telephone”. However, although the telephone broke down distance as a barrier to spoken communication, technological developments have not yet brought the full benefits to people with disabilities.

Only during the last few decades, have new options that provide telephone access to this community emerged. Moreover, individuals with limited mobility may not have easy access to spaces such as libraries, places of employment or business, or retail outlets. Although these facilities may be “accessible” for the wheelchair user in certain countries, getting to and from such locations often poses a se-
people with disabilities face an even greater challenge finding meaningful employment.

In El Salvador, for example, although the poverty level has significantly improved since 1990 (when the level was about 60% of the population) it remains at approximately 47.5%. Approximately 17% of its 6 million people have a disability and approximately 98% of those who have a disability are unemployed. The civil war in El Salvador greatly increased the number of people with disabilities in the country and, unfortunately, there are new victims of undiscovered land mines left over from the war.

People with disabilities are often left out of job-training programs, rendering them unable to compete in a job market with few opportunities. Few people have the job-skills necessary to apply for job offers and even fewer have the job-readiness skills necessary to keep those jobs. Moreover, many employers hold the widely believed misperception that a disability reflects a lack of productive capacity and are therefore not prepared to hire people with disabilities. There are also other important barriers, including the lack of consideration of universal access when designing infrastructure (buildings, public areas, transportation systems, signaling and security systems, the workplace), when purchasing productivity equipment (all sorts of industrial machinery, information and communication devices, office supplies), or in terms of “tele-work” opportunities.

The Project
Net Corps Americas (NCA), an initiative of The Trust for the Americas of the Organization of American States (OAS), launched last year a program to explore how ICT training and infrastructure can help people with disabilities in Central America. The program is aimed at raising awareness among grassroots organizations of people with disabilities of the socioeconomic opportunities offered by the use of ICTs, and at building the ICT literacy of its members to increase employment opportunities for people with disabilities.

The project is supported by grants from infoDev and the World Bank’s Development Marketplace initiative. International ICT experts volunteer to conduct ICT training, providing technical support to grassroots organizations of people with disabilities in El Salvador, Guatemala, Honduras and Nicaragua. Working in partnership with a variety of local organizations and universities, the project is implementing an innovative approach to increase the op-
opportunities for social and economic progress to a large community of people with disabilities.

Latin America has the fastest growing Internet market in the world, and the user rate in Latin America is almost doubling every year. According to statistics from ISTEC, the demand for IT personnel is larger than the supply and the shortage is expected to last for the next 10 to 15 years. The training provided in the project is specifically oriented to the use of broadly used ICTs, to develop ICT-based office and business productivity skills, and for micro-enterprise development which may easily meet a demand from potential employers. The project will also strengthen the existing networks of groups of people with disabilities so that they can communicate more broadly and effectively. This will enhance their capabilities to advance their education and to fight for better laws that promote the removal of physical barriers in the workplace and eliminate prejudice and discrimination in the job market.

First Evaluations

The project is showing that ICT training for grassroots organizations of people with disabilities, can be useful not only to build capacity among this particularly disadvantaged group, but also to create partnerships and test affordable technologies that match the existing needs. Last year, El Salvador passed a new and comprehensive law which not only promotes universal access in the workplace, but also fosters the hiring of people with disabilities in the country. This law is becoming a model for other countries in Central America, since other countries in the region have started to draft similar regulations. The disability law requires all businesses to appoint people with disabilities to fulfill at least 4% of its human resources needs. Employers will have to comply with the new law within one year, and government agencies and local disability organizations will work together on its enforcement. The component in El Salvador is becoming very interesting and with full support from the Ministry of Labor, the project is getting underway and becoming an ambitious initiative there. With support from grant funds the grantee has been able to leverage further support from the US Department of Labor (a grant of US $800,000 was recently approved for an expansion of the project component in El Salvador), and from other organizations. The project has its own website:

www.reddisdiscapacidad.org.

In partnership with local institutions, a Virtual Resource Center on ICT for People with Disabilities is also being created. This Virtual Resource Center will provide information, knowledge exchange and networking resources to volunteers, grassroots organizations, government authorities and regulators, employers, professionals and the public at large. Based on a needs assessment field study, the Virtual Center will provide a broad variety of information resources for people with disabilities, as well as good practices on how to increase ICT access in the workplace, as a reference for regulators, employers and for organizations working with people with disabilities. The project is implementing a more aggressive approach to awareness raising in the region as well as continuing to provide computer training and promote regulatory changes that will allow people with disabilities to enter a new and developing job market and compete in fairer conditions in it.

As a result, the project expects to achieve direct and sustained impact on one of the poorest groups of people in Central America, and to become a model to be replicated in other countries.
Investing in Internet Venture in Emerging Countries

An Interview with Ravi Vish

The networked economy and the proliferation of "dot.com" companies are subjects which are generally discussed in the context of developed markets. However, the spread of the Internet has lowered many market barriers, changed previously standardized commercial boundaries, and is creating a global e-economy which may have a profound impact on private sector development in emerging countries. In this interview, we have asked Ravi Vish, who is head of the Internet Unit of the Global ICT Department of the IFC, about the main challenges and opportunities regarding the spread of new Internet ventures into emerging markets.

Your unit at the IFC is engaged in promoting investments in Internet projects in emerging markets: How and why did you start this activity?

A year and a half ago, we started our negotiation with Softbank Corp. — a Japanese group with a leading position in the global venture capital markets — which then led us to the establishment of 'Softbank Emerging Markets', a $200 million joint venture between the International Finance Corporation (IFC) and Softbank Corp.

Traveling to emerging markets, it was evident that in most emerging countries the Internet was not started, while in other economies the Internet was having a dramatic impact in the businessesindustries, but also in the health sector or in education. Moreover, the latest technologies — including the wireless, the Internet, and the optic networking — were being developed in the US, in Europe and in Japan, but were not really spreading to emerging markets.

That's why the World Bank group found it important to try to intermediate transfer of these technologies to emerging markets. A number of countries started realizing this themselves, and we had requests from a large number of governments who came to us and said: "how can the World Bank group really play a role in getting the Internet to get established in these markets?"

Another issue is that the IFC has been investing in the telecommunications area for over a decade, and the World Bank group has been providing policy advice on telecommunications regulation and privatization for a very long time. As is known, there is a lot of convergence in this industry, and therefore it's also natural for us, from the convergence viewpoint, to go from investing in telecommunications companies and media companies, to investing in Internet companies. Venture capital funds and private equity funds are considerably investing in the United States, Europe and Japan, but they are not investing much in emerging markets, as they think it's too risky, that it's too far away and they don't have the capacity to establish offices and monitor their investments. On the other hand, domestic venture capital funds have not developed that well in many of these countries, due to inadequate venture capital legislation and culture.

Ravi Vish is head of the Internet Unit at the Global ICT Department of the IFC.
We realized that we had a role to play directly investing in Internet companies globally, and that our capital and expertise could play a catalytic role in attracting other venture capital funds to come to these emerging markets. Our involvement is going to enable global technology companies go to emerging markets and our involvement will also support local entrepreneurs. We thought these were very good reasons to get involved and that's when we started the Internet unit last year.

What strategy do you pursue, and to what extent can these investments alleviate poverty?

As regards our strategy, we think we want to go into a number of emerging markets, in particular the smaller, poorer and outreach countries, where venture capital funding isn't available and Internet development is still very limited. We believe our strategy should be focused on Internet infrastructure, including investments in web hosting, internet service providers, web consulting and software companies, all enabling the Internet get established in emerging markets.

In addition to this, we will very selectively look at Business-to-Business companies, where IFC has a particular domain expertise – for example infrastructure, or agribusiness. Another part of our strategy regards social applications, including health, education, and small and medium enterprise, where we think we have a role to play.

In terms of impact on poverty alleviation, I am absolutely convinced that the Internet is critical for poverty alleviation. The Internet permeates all aspects of society: if you take health, for example, a lot of information and knowledge can be provided through the Internet, and if you can provide this information in the local language you can enable a lot of people to access it. Think also how much content has been developed in the Education and how little of this content can be accessed by the poor: if you can make online education less expensive and affordable, it can have a big impact on improving the literacy rates and the standard of education and training in many developing countries. Similarly, SMEs in emerging markets: many of them don't even have access to the Internet or don't know how to develop a web site. We can give them a lot of power connecting them to the international markets, and enabling them to expand their export opportunities. Another important area where the Internet can have a tremendous impact on poverty alleviation is productivity, for example by cutting down the cost of procurement, by rationalizing the processes and reducing production costs, or by improving purchasing costs. In the agriculture sector, knowledge can be provided to the farmers through the Internet, and pricing information can be crucial especially for small producers. In the government sector the use of the Internet can also lead to cost savings. There is no doubt that technology has a dramatic role to play in economies, and it is important that developing countries may benefit as well of this opportunity.

Can you give us some examples of projects supported by your group?

To date we have developed two projects in the business-to-business area, and in some other projects we tend to work in cooperation with other departments within the IFC.

One of these business-to-business projects is called “Asia Pulp and Paper.com”. This project is aimed at improving the pulp and paper industry in Asia, which is rather fragmented, and is an attempt to put together suppliers and promote the exchange of these products.

“InfrastructureWorld.com” is another project. The service is going to provide developers - especially from developing countries - information on infrastructure projects that are being developed both in developed and emerging markets, and give greater opportunities to bid for these projects. The IFC is also investing in a couple of education projects based on distance learning, respectively in Brazil and India, as well as in Internet infrastructure projects. The IFC is also interested in investing in software companies, as software is also very important for Internet development. We have recently approved a project called “IT Works” in Egypt, which is a software development company providing outsourcing services for foreign companies in the United States and Europe. This project will enable Egypt export more
In the average we reject about 98% of the projects that we see. So far we have seen some 300 projects and we have only ten projects in our portfolio, so the approval rate is about 5%. The projects we see come to us from a variety of sources: directly from the project sponsors, from IFC promotion missions, from our resident representatives, or from other funds and venture capital companies who bring deals to us. When we select projects, we look at several factors, including the quality of the management and of the partner organizations, if it is a viable business model, what is the IFC role, if there is a developmental impact, and what is the project structure.

In terms of partnerships, we currently have relationships with a number of technology companies, and with venture capital companies. We have already invested in 120 funds in Silicon Valley and other parts, and, of course, we have a major relationship with Softbank Emerging Markets.

As a multilateral institution with a mandate regarding poverty reduction, it is very important for us that each of our projects has a strong developmental impact and that we have a precise role to play in it. This is really what distinguishes us from other venture capital funds, we are not in there just for the money.

We are one of the few resources available for venture capital in emerging markets. Venture capital funds in the US, Europe and Japan are mainly focusing on developed markets; local or regional venture capital funds may sometimes be available, but they don’t have the global expertise of the US or European ones. At the IFC, we may bring global perspective with the global integration but also the local knowledge, because we have been investors in these markets over the last fifty years.

Another difference is we are a long term investor, while venture capital funds usually want to exit in about four or five years, looking for an IPO or an acquisition within that time. We actually have a longer timeframe, as we can wait five to seven years, even longer. Of course we have appropriate exit strategies, but if the company needs additional funding, we can help find additional investors and provide additional funding; if it wants to grow much bigger, we can even provide debt funding, and the company grows and stabilizes. We can even help some of our portfolio companies go global.

Your group and infoDev share a common objective, regarding the capacity to leverage on ICTs to alleviate poverty: Do you envisage any potential cooperation or synergies between the two programs?

We certainly see a lot of potential for cooperation and synergies with infoDev. I think particularly in some of the smaller and riskier countries, a potential partnership with infoDev might be quite important. Smaller projects may need some kind of grant funding or subsidies, combined with some commercial funding and some proactive private management to make these projects work. We hope we can partner with infoDev in terms of providing a mix of private and public funding to these high risk projects.

As an example, a potential area of common interest might be the on the incubators’ side: we are expecting that infoDev obtains some funding for incubators, and as you know we have Softbank Emerging Markets, which is going to set up incubators in a number of markets. We are also looking at establishing incubators in some other markets directly ourselves, and I think there is a potential for cooperation in that area. There are possibly other areas as well, especially those with a strong innovative focus, in which a partnership with infoDev might be particularly interesting.
The Internet provides unprecedented opportunities and challenges to the private sector, the public sector, and civil society in developing countries. However, the ability to take advantage of these opportunities and meet these challenges depends on the readiness of the country, its infrastructure and its institutions. The measurement of this readiness – generally called e-readiness – is essential to understand and measure the infrastructure, regulatory and policy "gaps" jeopardizing one country's access in the networked economy. infoDev has just launched a new e-readiness initiative, which will assist countries in identifying the main challenges to be addressed, to promote the development of their e-economy.

It is no surprise that in all e-readiness assessments, the United States is considered the world's most "e-business-ready" country. However, the e-economy needs more than a large or robust economy to flourish. Connectivity, or the readiness of the communications infrastructure to handle Internet traffic, is also vital. Countries' preparedness for the development of e-business is therefore a major issue which needs to be addressed to measure the 'digital divide' and to set up strategies to bridge it.

Several methodologies and analyses have been developed to assist leaders in the developing world to assess their preparedness for participating in the global information economy. The Center for International Development of Harvard University, for instance, has created a guide which incorporates a systematic approach that looks at both qualitative and quantitative indicators in a community to identify the opportunities and challenges that the community will face in preparing itself for the new economy. The guide considers five broad areas - network access, networked learning, networked society, networked economy, and network policy - for the assessment of the community's readiness.

MOSAIC, a consortium of universities, has also developed case studies and self-assessments for e-readiness; the Economist Intelligence Unit, McConnell International, and many consulting firms have also done business e-readiness assessments, developing their own methodologies. What seems to emerge from all these efforts is that although the Internet is global, local conditions are still key to businesses going global. For example, in its e-readiness analysis, the Economist Intelligence Unit ranks countries like Iraq, Algeria, or Nigeria among the less e-prepared not only on account of their poor infrastructure, but also for relevant factors, such as the weakness of the economy, political instability, the regulatory climate, taxation policies and the trade and investment country environment.

In order to further support the development of e-readiness assessments in developing countries, infoDev recently announced a call for proposals for grants to fund assessments of information and communication technology infrastructure and e-readiness in developing and transition countries. This initiative is aimed at helping developing countries evaluate their information infrastructures, and will serve to develop an action plan which identifies the opportunities and bottlenecks.

infoDev expects to fund about 20 proposals up to $60,000 per grant. To date, 28 proposals have been submitted to infoDev and 12 have been approved for funding. The grants should be seen as an integral part of a broader sector strategy to engage developing countries in a process of ICT reform and investment, and to garner the maximum development impact from such technologies.

Further information regarding the infoDev e-readiness initiative can be found at: www.infodev.org/eradiness/
...a global grant program managed by the World Bank on behalf of public and private Donors who support it. infoDev pools intellectual, technical and financial resources from public and private partners. It aims at reducing poverty through the use of ICT in areas such as market development, education, health, government, commerce and environmental protection. infoDev promotes efficient markets in communications and information infrastructure. It innovates through small-scale projects with a potential for replicability; disseminates best practices, lessons learned from its own activities and from other experiences relevant to the development community; and supports special initiatives such as the promoting a regional connectivity, or helping address the millennium computing bug, or Y2K problem.

infoDev provides a framework for initiating a range of new development ideas to be field-tested. Project proposals can be submitted by government agencies, private companies, academic institutions or non-governmental organizations. Since its creation at the end of 1995, infoDev has received 668 proposals for projects in all parts of the developing world, 165 of which have been funded so far (excluding grants under the Y2K Initiative).


All Donors are members of the Donors' Committee, which governs the program and decides on its strategy and overall orientations. ICO Global Communications, who has co-financed an infoDev project, has an observer status at the infoDev Donors' Committee. A group of six international independent experts, the infoDev Technical Advisory Panel, advises the Donors' Committee and the management of the program. The World Bank contributes to the program financially, and provides logistical support and facilities at the World Bank's Headquarters in Washington, DC.

The most recent information on infoDev can be found at www.infodev.org, together with links to infoDev projects. infoDev's site also gives access to working papers and reports, and other documents infoDev produces or collects, and makes available as reference material to the infoDev community.

infoDev participates in the Global Knowledge Partnership.

infoDev eXchange is published as a quarterly electronic and printed newsletter by infoDev, the Information for Development Program, hosted by the Global Information and Communication Technologies Department of the World Bank Group.

The Editorial Board of infoDev eXchange is chaired by the Program Manager of infoDev, Carlos A.P. Braga and includes the members of infoDev's Technical Advisory Panel.

For information on the Program and on the contents of this newsletter please contact the Executive Editor, Ms. Elena Scaramuzzi, at +1 (202) 458-7331 or visit infoDev's website (www.infodev.org).