

From the Internet on the bullock cart to e-prosperity in India

by Mohamed V. Mushin
Vice President and CIO, The World Bank

In a remote village in central India, an elderly and destitute widow did not receive her modest pension cheque for several months. She trudged to the nearest cyberkiosk - part of the Gyandoot network - and paid five rupees to mail her complaint to the administration. The very next day, a team of officials arrived in the village. They discovered that 47 other villagers shared her plight!

In recent years, we have heard many such tales of isolation and hopelessness transformed into empowerment and knowledge - stories that touch the heart and the soul and go to the very core of our purpose in life as IT professionals.

And in recent years, information and communication technology has transformed our world, even our universe. Our astronauts were even sending extra-terrestrial e-mail from the space shuttle to the international space station. Things that were once unimaginable are now considered routine. Things that were once undreamt of are now reality.

Yet in our world, half the world's population live on less than \$2 a day (Rs. 100); and 1.2 billion people live on less than \$1 a day (Rs 50).

In articulating the challenge of poverty, Jim Wolfensohn, the World Bank President, said:

"Our greatest long-term challenge is Poverty, which snatches hope and opportunity away from young hearts and dreams just when they should take flight and soar; Poverty, which can lead to exclusion, anger, and conflict; Poverty, which can provide a breeding ground for the ideas and actions of those who promote conflict and terror".

While so much has been achieved, there is still such a distance to go, globally in general and India in particular.

And so let us speak today of an agenda that offers the poor greater opportunity and empowerment.

* An agenda that uses Information Technology tools to help people break out of the vicious cycle of poverty.

* An agenda for not only escaping poverty for but achieving prosperity.

An agenda that is rooted in the vision and noble ideals of the past.

For it was over half a century ago, at the dawn of India's independence that Pandit Jawaharlal Nehru said.

"The service of India means the service of the millions who suffer. It means the ending of poverty and ignorance and disease and inequality of opportunity. These dreams are for India, but they are also for the world".

What a profound statement at that time!

Who could have imagined that Nehru's dreams for independence and development

of the country would equate to the challenges and opportunities of the information age?

Who would have dreamt that India's suffering millions could be served and aided through cell phones carried by the postman, by computers and internet access on bullock carts, by video conferencing through the "hole in the hut's wall," and dozens of other innovative uses of information technologies?

And who could have envisioned India as an IT celebrity in the global economy?

Independent for over 50 years, India's rich civilization spans over five thousand years. It is a culture that is heavily knowledge-intensive. Tagore reflected it so well.

"Where the mind is without fear and the head is held high:

Where knowledge is free"

India's knowledge economy and knowledge society has stretched her achievement beyond the bounds of imagination. For us at the World Bank, where we deal with a lot of the developing world, we see increasing and strong recognition of India's leadership position in the global IT environment. Clients ask us for best practices, and we use India as a shining example of success in this area. World Bank President Jim Wolfensohn is a great admirer of the Indian experience and often refers to the leadership provided by visionaries and doers like Chief Minister Chandra Babu Naidoo. Such leadership and conversion of vision into action is what's made the dream come true.

And over the last few days we have sung the praises of India's advancement in the software world. It is therefore not my remit to elaborate any further on this phenomenal achievement. Instead, I would ask the rhetorical question.

Isn't it ironic that in the midst of wealth creation, one of every four Indians - some 350 million Indians - live on the very margins of life, on less than fifty rupees a day barely enough for a poor family to buy a square meal for the day?

World Leaders, including the leadership of India, have recently agreed to attack global poverty on a number of fronts in support of the Millennium Development goals. These goals include reducing by half the proportion of people living on less than once dollar a day, and achieving universal primary education by 2015.

How is India's progress towards achieving these goals?

Recent improvements in poverty and literacy in India are significant. Yet, on its present course, India will lag way behind in several goals: reducing the share of people living on \$1 a day, eliminating the gender gap in education, and reducing infant mortality by two-thirds.

To put it bluntly, India has some of the lowest human development indicators in

In recent years, information and communication technology has transformed our world, even our universe. Our astronauts were even sending extra-terrestrial e-mail from the space shuttle to the international space station. Things that were once unimaginable are now considered routine. Things that were once undreamt of are now reality

the world. Yet, India has a large number of highly qualified professionals and world-class industrial groups. Without a broad-based and sustained increase in economic growth, reducing poverty will remain a considerable challenge a daunting challenge. I am reminded of the world of Helen Keller.

"No pessimist ever discovered the secrets of the stars, or sailed to an uncharted land, or opened a new heaven to the human spirit".

What does this challenge have to do with NASSCOM event and with each of us?

In fact, there are several roles for us to play in the agenda for poverty alleviation and e-prosperity. I will refer to a few of these roles.

First, we have a role to play as information professionals:

* Information Technology is not a luxury. Globalization is not optional; and hence IT is not optional. A person's thirst will not be quenched nor hunger addressed by us simply talking about IT. So no surprise that in Hyderabad, a man once asked me in an aggressive vernacular, "why do you give us computers, when we need bread? Surely I cannot eat a computer"? My answer was that would it not be better if I provided you with the means to make bread rather than just give you bread.

And so it was very heartening for me to hear from my friend Sirni Raju last night the story of the woman in Hyderabad whose cow was not yielding milk and her very livelihood was being threatened. She walked over to a cyber kiosk and paid Two Rupees for transmitting a question to the State's veterinary officer.

She received a response the very same day, translated in Telugu, the local language, where she was advised to administer an indigenous medicine -and it worked! Information professionals could therefore be problem-solvers and useful intermediaries.

Secondly, we have a role to play as educators:

* The two great equalizers in life today are the Internet and education. Let's

remember that the poor, and particularly those in rural and remote areas - as do all people have special information, knowledge and communication needs. IT can play a significant role in supporting livelihoods: through linking schoolchildren in Vietnam and the US through integrating isolated regions and marginalised groups in Nepal or South Africa enabling post-conflict reconstruction in Afghanistan, East Timor and now in Sri Lanka or through societal initiatives that connect local communities to make their voice heard, as is so well-seen in the Gyandoot network in central India.

Thirdly, we have a role to play as business leaders:

* India should not be looking at itself as only a software exporter, but rather as an "ideas" exporter. The World Bank and other multilateral organisations see our role largely as a catalyst, facilitator, broker and connector. And NASSCOM plays, and should continue to play, the same role in India.

While application software development has been the focus of members of NASSCOM and others, the time has come where there is a major demand for practical business process re-engineering and consultancy. This is clearly an area where the Indian knowledge and IT experts and consultants can make a difference globally.

And the fourth role that I will mention is the role that we have in social leadership:

* Leveraging IT for poverty alleviation gives us the opportunity to "do well and do good." As leaders, we have corporate and social responsibility. We have responsibility

for closing the gap between the haves and have-nots, between the technology-empowered and the technology-deprived. We are all encouraged that several of you have involved yourselves with community development efforts; some of you have even formed foundations that will help the poor.

This is encouraging and exemplary. But more needs to be done by all of us.

For example, as talked with carpet and rug weavers in remote Bosnian villages and with orchid growers in Zambia; these small enterprises have a need for transactional and tracking applications.

And there is need for e-learning applications that can handle multiple language translations; and simple-to-use collaborative tools such as the Chinese education system has been calling for. Clearly there are many basic needs solutions that members of NASSCOM can address.

The challenge is to create an environment in which ideas can incubate and grow and are nurtured to become useful and usable products, locally and globally.

Wouldn't it be great to see India as the leading champion to bring IT to the poor. If Tata buses could have beaten the competition why cannot India beat the competition on computers and help the poor in the world with affordable equipment and software.

And last, the role of the World Bank in using IT as a strategic lever to bridge the poverty gap:

IT and knowledge components of our portfolio are approximately \$1.5 billion per year.

Supporting the Knowledge Economy has become increasingly central to the Country Assistance Strategies which are jointly developed by our clients and the World Bank. This includes assistance to the use of IT in both the public and private sectors, and is largely aimed at helping to bridge the digital divide.

For example, the World Bank co-sponsors the development gateway, which is accessible on the internet.

It has an evolving research and training program and two centres were recently inaugurated in Numbai and Bangalore as part of the government's contribution to the development Gateway Foundation. Its focus is develop Internet applications in local languages.

On another front, the World Bank pro-

vides advisory services and financial support in telecommunications, informatics and IT related fields at the country and regional levels. Such projects cover a broad range, including: setting up internet kiosks in rural community centers in Thailand; supporting development of the e-government agenda in Guatemala and modernizing government systems in Tanzania; and implementing distance learning centres - one such center in Vietnam is also used for telemedicine between doctors within and outside the country.

While our services are global, the World Bank has also a strong partnership with India and we look forward to continuing this partnership. For instance:

* We are seeing that an increasing number of our clients are inclined to use India and other offshore centers in other parts of the world, after some scepticism. And here let me recall an event: when we wanted to offshore to India during a major systems implementation. Some of our partners discourage us, saying that they cannot take the risk.

However, being a development institution we said, "if economic development and working with developing countries was a risk not worth taking, then we are out of business.!" Experience has shown that our actions in both offshoring application development and more recently in business process outsourcing were vindicated.

In like vein, our support in India for the use of IT has increased over the last few years, ranging from; supporting the streamlining of water management processes in Uttar Pradesh; educating rural farmers throughout India about the benefits of new technology; promoting e-literacy in rural districts of Pune; in Andhra Pradesh, MIS systems for monitoring for economic restructuring; and several other projects in the urban, power and infrastructure sectors. And very soon under financing from the World Bank we will be seeing buses converted to mobile "computer classes on wheels" - where buses with seating arrangements reconfigured to accommodate computers, powered by the Buses' battery - will move from school to school in rural Pune to meet quench the thirst for computer literacy in schools.

Now, let us turn to the future and consider our agenda for e-prosperity. Some may ask, what does the future hold? What's the prediction?