

Distance education for development

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Introduction

The theme that I have been asked to speak on is “Distance Education and Development.” It is a very broad theme and one can treat this theme from a variety of perspectives. I have chosen to address the issue of how distance education can contribute to achieving the Millennium Development Goals (MDG). As you all very well know, in a decade, we shall be measured in terms of how well we have accomplished the eight development goals targeted in the MDG.

Let me start my presentation by quoting Hirotaka Takeuchi, one of the main thinkers of knowledge creation: *“If knowledge is the engine of development, then learning must be its fuel.”*

I would like to take off from this quote because it captures the essence of this presentation. Knowledge has emerged as a major force in sustainable human development. But building knowledge requires innovative learning methodologies which empowers the MDG target groups, i.e., the most marginalized sectors of society, to be equally responsible and participative of their own development.

We emphasize on innovation because we realize that “more of the same” learning strategies no longer suffice in meeting the challenges of the Knowledge Society. It is an entirely different and more complex world and therefore we can no longer have a “business as usual” attitude.

Distance education offers an innovative tool and approach. But we must closely examine existing open and distance learning models because of the tendency of many to simply “extend” or “expand” the traditional (and even dysfunctional) education system by merely modernizing the delivery channel – the same book, only with a new cover.

My proposal is the innovative use of community-based knowledge networks using a mix of distance education approaches which enable the most marginalized to take part in development. Community-based knowledge networks adopt new technologies but remain culturally fit.



The development challenges

We live in a world marked by contrast and characterized by division, extremism, and even irony. For how else can we describe a world order where amidst breathtaking advances in science and technology and economic miracles (especially in China and India), there is massive poverty, socio-economic inequality and political marginalization.

Year after year, since 1990, the UNDP Human Development Report series presents grim statistics and scenario on the scale of development challenges facing the world. How well have we addressed these challenges?

Consider the following facts and figures in the 2005 Human Development Report:

Since 1990, life expectancy in developing countries has increased by two years, There are three million fewer child deaths annually and 30 million fewer children out of school. More than 130 million people have escaped extreme poverty.

In 2003, 18 countries with a combined population of 460 million people registered lower scores on the human development index (HDI) than in 1990- an unprecedented reversal...10.7 million children every year do not live to see their 5th birthday, and more than one billion people survive in abject poverty on less than \$1 a day.

The development challenge is more pronounced among the most marginalized groups and sectors namely the rural poor, women and physically challenged. They do not only have the least access to resources and opportunities but they are also the most vulnerable to abuses.

The following facts and figures, while focusing on education, dramatize the extent of social inequity:

- Girls account for 57% of out-of-school primary-school age children worldwide in 2001 (and more than 60% in Arab states and in South and West Asia).
- Gender disparities become more extreme at secondary and higher education.
- Almost two-thirds of the world's adult illiterates (64%) are women.
- About 800 million adults were illiterates in 2002. 70% of them live in 9 countries belonging mostly to sub-Saharan Africa and East and South Asia.
- Estimates suggest that there are 150 million children with disabilities worldwide and that fewer than 2% of them are enrolled in school.
- More than 27 million young people (including refugees and internally displaced persons) from 10 countries affected by or emerging from conflict lack access to formal education.
- ILO estimates that 16% of 5 to 14 year-olds worldwide were engaged in work in 2000 and that 75% of 5-9 year-olds and 10% of 10 to 14 year-olds combined work with schooling.

To address the human crisis, the world's governments meeting at the United Nations in 2000, signed the **Millennium Declaration**, a solemn pledge "to free our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty." The Declaration contains a vision rooted in a shared commitment to Universal Human Rights and social justice and backed by clear, time-bound development targets, better known as the **Millennium Development Goals**. These MDGs include: (1) eradication of extreme poverty and hunger; (2) achieving universal primary education; (3) promoting gender equity; (4) reducing child mortality; (5) improving maternal health; (6) combating HIV/AIDS, malaria, etc.; (7) ensuring sustainable development; and (8) developing a global partnership for development.

At the start of the 10-year countdown to 2015 deadline set for the MDGs, are we making any progress?

A recent UNDP Report presents a very sober appraisal: "...*(T)he overall report card on progress makes a depressing reading. Most countries are off track...The promise to the world's poor is being broken.*"

Yet the same report offers a glimpse of optimism. "*If the investments and the policies needed to achieve the MDGs are put into place today, there is still time to deliver on the promises of the Millennium Declaration. But the time is running out.*"

UN Secretary General Kofi Annan echoes the optimism: "*The Millennium Development Goals are still achievable if we break with business as usual and massively accelerate and scale up action now*".

During the recent World Leaders Summit in September 2005 at the UN headquarters in New York, our political leaders reaffirmed their commitment to the MDGs, perhaps mindful of the fact that today's generation and the next, may remember them as the political leaders that let the MDGs fail during their watch.

This important gathering of educators faces the same challenge as our political leaders. Of the eight MDGs, three are education related and the five others require inputs from the education sector. What interventions or innovations can educators introduce now to make the education related MDGs still attainable in 2015? Can open and distance learning (ODL) be such an intervention and therefore make a difference especially in the lives of the most marginalized?

Knowledge for development

The relative importance of the major determinants of development has been changing over the past decades and the shift is taking place from manufacturing to services and from capital resources to knowledge resources. Increasingly, the element of knowledge is considered to be the key to escape both poverty and marginalization which in essence is the vision of the Millennium Declaration. Addressing the Second Global Knowledge Conference (GKP), the President of the World Bank stated:

“The world has moved to a revolution which is built on knowledge, on technology and on information... knowledge, if it is properly transferred, if it is made available to all, gives the greatest opportunity for people to advance themselves and to fight against poverty.”

This shift in knowledge-based sectors of development requires investment in human capital, particularly education. A number of research studies for developed and developing countries have affirmed that educational development, which indicates the application of knowledge and information and communication technology (ICT), has preceded economic development.

Knowledge-based human resources that we possess in abundance, can be utilized for achieving better results in many areas like agriculture and industrial productivity, employment generation, infrastructure development, improved education, training and health care and effective governance.

With new ICT emerged the Knowledge Economy characterized by abundance of “organized and functional information” leading to a phenomenon which we now describe as “knowledge explosion.” ICT has facilitated at enormous rate the generation, preservation, dissemination, exchange and utilization of knowledge sans physical distance and space.

The global economy is becoming increasingly dependent upon the ability to efficiently produce and use knowledge and that the competitiveness of a country depends on the knowledge acquisition capacity of its human resources. Conversely, lack of application of knowledge and technical know-how accentuates the process of marginalization and economic deprivation.

Thus emerges a major development challenge, equally if not more serious than the challenges described earlier. We refer to the “knowledge divide.” Various development literatures refer to digital divide. I prefer the term knowledge divide because the gap goes beyond access to new media technology but more important, to capacities to generate, acquire, share and use knowledge. The extent to which the knowledge gap is narrowed will determine the pace of development of the global economy.

Recognizing the power of knowledge in fueling comprehensive development, UNESCO has adopted as its most important vision in the 21st century the emergence of Knowledge Society. UNESCO describes the knowledge society as “an empowering social vision which encompasses plurality, inclusion, solidarity, and participation. It is based on the principles of freedom of expression, universal access to information and knowledge, promotion of cultural diversity, and equal access to quality education.”

UNESCO firmly believes that unless the people, particularly the marginalized sectors, are involved in the knowledge processes described earlier, the knowledge divide will remain, and the vision of knowledge society will remain as such, merely a vision.

Education and the knowledge society

Education is *sine qua non* for the creation of knowledge societies. A knowledge society cannot exist without highly educated citizens and a well-trained workforce, social cohesion, and the competitiveness depending on our ability to exploit the potentials of ICTs for learning.

There is no doubt that education is the main driver for development. Various studies¹ converge in saying that the quality of human resources is directly related to individual earnings, productivity, and economic growth. A more educated society may translate into higher rates of innovation, higher overall productivity, and faster introduction of technology. And better education enables individuals to make informed choices on matters important to their health, nutrition, and welfare. Finally, Education is the foundation for access to the benefits of the information revolution that is opening up new vistas on the whole world.

Re-engineering education

While we recognize the key role of education in development and the emerging knowledge society, we also realize that traditional or conventional educational systems no longer suffice. To begin with, many existing educational systems worldwide were designed to suit the requirements of the passing industrial revolution. Worse, some still fit the agrarian society.

If conventional learning methods were effective, we would not be exerting much energy and resources today trying to bridge the many divides which traditional educational systems are partly responsible for. Age-old methods of learning are not enough. There is a clear need for "business-unusual" approaches, particularly in order to reach the un-reached.

Open and distance learning (ODL) system is often cited as an example of an innovative "business unusual" approach in learning and education. ODL employs multimedia approach of delivering educational services, and is very popular for ensuring access, equity and quality education in a cost-effective manner. It has the potential to provide low-cost quality education to all those who seek to acquire new knowledge and technical know-how.

¹ *Education for all: The quality imperative; EFA Global Monitoring Report, 2005* – Paris: UNESCO, 2004 ISBN 92-3-103976-8 Available at: <http://unesdoc.unesco.org/images/0013/001373/137333e.pdf>

For many, the use of open and distance learning is no longer a matter of choice. In some communities, it is the only option. Until recently, the use of broadcast and electronic media as learning network is constrained by “connectivity” and “electricity.” With broadband wireless technology, learners can now get connected to their virtual classroom.

The present ODL model: is it really a better option?

While ODL system is indeed the “wave of the future,” there is a need to present more evidences that ODL can meet the distinct educational needs and requirements of the most marginalized especially the rural poor, children and women and the physically disadvantaged. We cannot build knowledge societies without making it inclusive and without having any positive effect on these marginalized sectors.

As a “student” of open and distance learning, several questions in my mind beg for answers from distance education experts. I shall present these questions and attempt to give my own observations.

Does the present distance and open learning cater to the most marginalized?

It seems that many ODL systems are simply “expanding” the existing traditional classroom system. In other words, they are just creating virtual classrooms without really reaching out to the most marginalized. In many cases, the ODL does not provide an alternative because ODL is also NOT ACCESSIBLE to the most marginalized for various reasons, i.e., lack of access to technology, absence of connectivity (whether electricity or digital) and for reason of technology (computer) illiteracy.

Is the delivery mechanism suitable (in the context of marginalized sectors)?

Some ODL are technology-oriented in terms of delivery mechanism. Thus, the issue of access is relevant. Even the use of printed modules should be examined as some believe that printed materials are bias against illiterates or semi-literates. Some ODL delivery mechanisms are also centralized rather than de-centralized for cost-effectiveness reasons. But this departs from the learner-oriented feature of ODL.

Is the instructional design appropriate?

The issue of appropriateness can be linked to the degree of participation of the learners in the design of instructional materials. Some ODL may have “participatory” learning approaches but instructional design remains the domain of administrators and teachers.

Do we need to change the whole mechanism?

The challenge to ODL is how to be an alternative and not simply a mechanism to expand an educational system. The areas for review or perhaps re-engineering include: instructional design, delivery mechanisms (especially with the advent of broadband wireless technology), learners access and participation, quality assurance and accreditation, indigenous knowledge, among others.

Does the same approach for all, (i.e., same size fits all) work? Or do we need to change our approach?

While so-called success stories provide lessons on best policies and practices, we should be cautious not to simply transplant experiences from other institutions or countries. The keywords are adaptation (not adoption), innovation and creativity.

Community-based knowledge network for the most marginalized

The challenge ahead, given the issues raised on ODL system, is to foster the many opportunities that ODL provides for communities that have no access to any learning. For these communities, the usual problems of distance education – content, methods, language, physical access, literacy, monitoring of course deployment, and technology – are particularly great.

My thesis is that community-based knowledge networks using a mix of distance education approaches can help the most marginalized take part in development. I would like to discuss these opportunities for those who are the most in need and on whom development efforts should be primarily targeted, including persons with disabilities, girls and women, and the poor living in rural area.

Indeed, many of the advantages of distance education – including the opportunities for lifelong learning that it offers, the provision of interactive and participatory learning and its potential to foster community learning and knowledge-sharing can help these communities develop networks, which create share, disseminate and preserve knowledge that is crucial for their development.

Community-based knowledge network creates opportunities for the building of **social capital** which the World Bank regards as the “missing link” in the development equation. The World Bank defines social capital as “the informal rules, norms, and long-term relationships that facilitate coordinated action and enable people to undertake cooperative ventures for mutual advantage.” Political scientist Robert Putnam, one of the ardent advocates of the concept defines it as “the features of social organizations, such as networks, norms, and trust that facilitate action and cooperation for mutual benefit.” Social capital can be plainly described as “connections.”

When designing ODL for the most marginalized, we mainly need to address the issue of appropriate delivery mechanisms and instructional design. Concerning delivery mechanism, many projects have shown that in order to be successful, distance education for marginalized communities must include both traditional and new media.

There is no doubt that radio is a medium of choice as it ensures maximum participation of the people being served, many of them illiterates, is sensitive to local contextual and cultural characteristics, encourages creativity among the participants and it can base its programmes on real local issues. These advantages need to be combined with those of state-of-the-art technologies, including wireless technologies.

An important aspect is that of ownership of distance learning projects. It is crucial that the community infrastructure be integrated in the distance education networks giving emphasis on group learning and hands-on experience, and more knowledge sharing and local content creation.

There is also a need to build on the local ICT initiatives creating coalitions, networks, and knowledge management systems to systemically extend ODL solutions for grass-roots communities.

To achieve the necessary multiplier effect, the initial focus needs to be on training and providing ODL resources for the managers of extension services and the extension workers and local facilitators.

ODL needs to be multimodal, multimedia, with stakeholders meeting in groups and collaborating in applying the new learning. There is also the need to build bridges between indigenous culture and knowledge and scientific ways of knowing and doing things.

Experiences in community-based learning

Our vision of a community-based knowledge network can be built upon the lessons and experiences from past and current community-based learning models and best practices. Two models can be cited: the **Community Multimedia Centres (CMCs) and School-on the Air Projects**.

A CMC combines community radio with community telecentre facilities (computers with Internet and e-mail, telephone, fax and photocopying services). The radio, which is low-cost and easy to operate, not only informs, educates, and entertains, but also empowers the community by giving a strong public voice to the voiceless.

Through the UNESCO supported CMC initiative “ICT in the Hands of the Poor,”² new paradigms of learning in community ICT usage and poverty eradication have been created in nine UNESCO projects enabling socially relevant ICT infrastructure services for gender empowerment.

The CMCs are not schools but they are widely understood in relation to and in contrast to schools. They provide different learning styles and approaches, the technologies involve quite different activities and learning processes and the range of social activities vary from school contexts. It is precisely this quality which allows them to reconfigure participants' learning and educational experiences.

The projects generated research findings³ which attest to the fact that ICTs can be of critical importance – in a context of low education levels and high dropouts from the

² <http://ictpr.nic.in/>

³ Don Slater, Jo Tacchi: Research in ICT Innovations for Poverty Reduction (Editors: Ian Pringle, Savithri Subramanian). – UNESCO: New Delhi, 2004 ISBN-81-89218-01-8 Available at <http://unesdoc.unesco.org/images/0013/001361/136121e.pdf>

formal system, in the socio-economic mobility of families and in communities where the patriarchal value system persists.

In India, we observe with interest **Mission 2007**⁴-“Every Village a Knowledge Centre” initiative. Mission 2007 is a nation-wide initiative launched in New Delhi in July 2004 and aims to set up a knowledge centre in each of India's 600,000 villages by the year 2007, the 60th anniversary of country's independence. Each centre would be a venue for knowledge-based livelihood and income generation opportunities for poor women and men, farming communities and all disadvantaged people.

Other programmes which provide evidence of the effective correlation between distance education and empowerment of marginalized are the distance learning courses on food and nutrition and empowering women through self help groups that are provided by the Indira Gandhi National Open University⁵.

A second model is the **Agricultural School On-the-Air**⁶ in the Philippines that is provided by DZJO, a radio station operated by the Bayanihan Broadcasting Corporation (BBC). The lessons from DZJO-BBC are very relevant to present distance and open learning institutions and provide some useful lessons in mobilizing CMCs and community media for ODL. Another example of this model is “**Farm-School on Air**”, which was started in India in 1977 by All India Radio for the training of farmers and villagers through distance education. The broadcasts were designed to provide information and advice on agriculture and allied topics. The aim was to educate the farmers and provide them assistance in adopting innovative but locally relevant farming practices.

The core of all these programmes is the content or message: What do we share with our audiences? How can we ensure that the message is not source-driven but audience-driven and needs-oriented? The message must take its cue from the setting or context. The context is defined by the needs of the community, their culture and language, and existing support development programmes.

Critical Factors for Reaching the Un-reached

From the above examples, we have seen that solutions are available. We are not poor in tools, but we have not yet learned to exploit them fully. There are basic factors⁷ that

⁴ <http://www.mission2007.org>

⁵ <http://www.ignou.ac.in/>

⁶ <http://www.fao.org/sd/CDdirect/CDan0027.htm>

⁷ Identified at “ICT for Capacity-Building: Critical Success Factors” 11-13 May 2005, UNESCO Headquarters, Paris, France. Reports and conclusions of the thematic meetings organized by UNESCO in preparation of the second meeting of the World Summit on the Information Society (WSIS). Prepared by UNESCO. - Paris: UNESCO, 2005. (CI-2005/WS/3) http://portal.unesco.org/ci/en/ev.php-URL_ID=19423&URL_DO=DO_TOPIC&URL_SECTION=201.html

are critical for the success of distance education for marginalized communities. These include:

- Clear vision. Distance education programmes should take a humanistic approach, focusing on people rather than on technology.
- Holistic and integrated approach. Distance education programmes should be aligned with national and regional policy objectives to optimize benefits. They should also take advantage of economies of scale, of sufficient consequence to lower the cost of services and technologies (e.g. bulk buy of bandwidth, consortia approaches to similar initiatives, learning objects repositories, one platform combining applications to share capacities, education, public services, entertainment and business) while responding to the specific needs of local communities.
- Local ownership and community participation. Distance education programmes must involve local communities to get their commitment, build local entrepreneurship, and enhance local know-how such as on crafts. Volunteers and the NGO community should also be involved in distance education programmes to bring their expertise in the delivery of practical activities and local knowledge and networks.
- Develop not only skills but state of mind and attitude. Distance education programmes must create dynamism among all actors involved to develop imagination, motivation and the desire to be productive, and to build a “culture of innovation” based on the familiar and friendly use of technology. Inspiring youth is essential in building this cultural identity.
- Government support. Governments must be prepared to think innovatively (e.g. broadband models, solar energy, wireless, PDAs, mixed technologies), and identify as principal priorities the development of basic infrastructure requirements such as energy supply and telecommunications using bundling demand models (e.g. satellite platforms) to be used for multiple applications and services.
- Multi-stakeholder partnerships. Multi-stakeholder partnerships based on trust and a shared vision are essential to create impact and to build scale so that knowledge can be leveraged across the world. Networks should be built around the distance education programmes with the active participation of private sector for support and input into the reform process.
- Flexibility to enable innovative solutions. Flexibility and innovation require changes in attitudinal approaches and state of mind to be able to meet the different levels of sophistication of users.
- The need for the appropriate technology environment. Innovative solutions need flexibility in the choice of technology and an open regulatory environment (e.g. open standards, facilitating access to licenses and mixed technology approaches). Technology solutions should be easy to deploy and maintain, and be upgraded

continuously to develop skills and abilities to make use of more sophisticated technologies.

- Localization. Distance education programmes must be adapted to local communities and contextualized taking into account local competencies (e.g. in terms of language), curricula and content.
- Sustainability. Distance education programmes should be integrated in the life of community to be sustainable.
- Monitoring and evaluation. Distance education programmes should include monitoring and evaluation mechanisms by identifying intermediary and final outcomes that can be measured continuously.

These initiatives also demonstrate that people's attitudes and lifestyles, their responsiveness to educational programmes, their sense of ownership of the drive to preserve a decent future for ensuing generations are intimately linked to their own cultural identities and values. No development and, indeed, no worldwide commitment to sustainable development will get anywhere without that recognition. In this I firmly believe that Community-based Knowledge Networks can help the most marginalized to take part in that development contributing to narrow the divides threatening our societies.

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