INFORMATION TECHNOLOGY FOR COMMUNITY DEVELOPMENT IN SRI LANKA

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Today, we live amidst a cobweb of magnetic waves criss-crossing national, cultural and geographical boundaries facilitating the communication of *Homo sapiens*. Laptops talk through mobile cellular phones while digital dots record volumes of information into miniaturized optical discs. Volumes of books are carried in compact discs packed into school boy's pockets. The wisdom accumulated in societies through centuries of human interaction are whisked across national boundaries in a fraction of a second through super fast fibre optics. The excitements of an electron has transformed the excitement of the mind of the society at large.

The 'Internet' - the most attractive product of the Information Technology in today's world - is extending its web. adding another customer into the net almost every moment. Scientists who are starving for the latest information in their respective fields are offered endless reservoirs of academic information data bases. Salesmen approach lonely wives sitting in their bed rooms to sell fashion items through on-line commerce. Teens see movies in hiding, while adults share their ideological common sense with colleagues of an 'interest group', who they have never seen face-to-face. The society feels psychologically connected though they are lonely strangers at the street.

That is the hype. But it hides a true challenge. How do we connect people who have never even had access to a simple typewriter, who have never experienced the sound of an engaged tone on a conventional phone line and who have the highest regard for the shop owner of the nearby boutique, who acts as a god-father offering credit every now and then when the crop fails.

In the contemporary world, people say 'information in money'. If that is the case, the present trends of Information Technology development and distribution in Sri Lankan society raise the question, are we promoting the disparity between rich and poor? If so, what are the options to avoid such a negative development as an aftermath of such a valuable technology?

To be or Not to be?

If one follows the footpaths to extremely rural societies like Villachchiya in Anuradhapura or Badagiriya in Hambantota, you witness the struggle to draw breath and fill stomach. The technology needed to grease their cart wheel is more relevant to them than sophisticated words such as Information Technology. Even the youth, in such societies, with the limited education they receive, would hardly get excited. For the people who struggle to live with the minimum basic human needs, Information Technology is a word that falls on deaf ears.

Yet, for the suburban societies it is more attractive. For people who have their basic needs met, whose ambitions are the driving force of their day-to-day life, Information Technology would definitely be an appealing idea. For the parents who are searching for prospective universities to send their high school graduating children, the Internet is a valuable information provider. For a youth who has invented a sprinkler system to irrigate anthuriams, data bases connected through the Internet or CD ROMs is helpful not only to improve the technology, but also to find prospective investors.

Today, the common plight of the rural farmer is his inability to earn a fair price for the vegetable harvest from his small home yard plot, which barely covers the actual cost of production. This pathetic situation is partly due to the high bargaining power of the ever-flourishing middlemen who work as the sole connection between the farmer at a far remote village and the market at a township. Lack of market information certainly handicaps the farmer in this dealing. Information Technology has remarkable potential to answer this problem. There are several projects progressing at the moment to provide Information Technology answers to this problems. The 'telepannels' of the proposed 'information centers' located at the townships will provide hourly updated commodity prices (project is launched by CeyCom Global Communication Limited). Such projects forecast optimism of Information Technology to uplift the state of the farmer.

Under the blessing of the extravagant open economic approach, there are increasing opportunities of

soft loan schemes by the commercial banks which pave the way for a popular culture of micro-entrepreneurs. Yet the technology remains in an unresolved bottleneck. In Uva province, there is a growing trend of young farmers trying to improve their income producing cash crops under poly-tunnels. There are occasional cases of young people searching for the latest technologies such as improved greenhouse systems or hydrophonic systems to further explore the profit-earning capacity. Yet because of the pitiful situation of the national agricultural sector, with no extension workers around and no institutional coordination available, farmers hardly know how to get the expert advice to adapt such technologies. The Internet could be a god-send to these people. They can connect to the net and download the expert information packages or even get expert consultancy via simple 'bulletin board' discussions.

The unemployed youth, a prominent national problem to date, may find Information Technology an attractive way to discover their future. It is the youth in the USA who got addicted to the Cyber-dialogues, leading to the exponential increase of the population of the Internet society, who are virtually networked around the globe by now. The interactive capability of the computer attracts the youth, the capacity to communicate with a variety of groups of people enhances the chance to broaden their view points and the ability to interact with various types of programs such as graphics, statistics and word processing simultaneously with the computer improves the creativity of the mind. Overall, it may improve the chance of the youth to be employed, as he develops his skills, gets exposed to a wider community and choices, and develops his selfconfidence as a man with a value.

Strength of Information Technology to empower the community

The global village is inter-connected through the Internet. If you have access to a computer with a modem, you are virtually connected with the globe. You are a free bird flying in Cyber-space. You have uncountable freedom which you would hardly enjoy in this civilized society. As it is a decentralised system, owned by every body of the Cyber-community, you are not regulated by anybody in the world, unless the Cyber-community is changing their icons once they see your name appear on the screen. (If you don't follow the rules of the Cyber-community it is common practice to avoid your messages by other members whenever they appear in the net).

The other important thing is, it is free from politics, bureaucracy and other authoritarian systems, which keep subtle controls on present society, especially in the third world. This characteristic is vital in the long term change of trajectory of a societies' development, provided the majority has access to the Internet and associated technologies. If the majority public has Internet access, news agendas would have to change from politics to other community related development topics. The people who have more genuine concerns may be able to carry their thoughts and insights into the popular topics. Local communities may get more appropriate, selective information. For example, the Eppawala community could keep in touch with the global important and value of Phosphate and magnify their bargaining power with the local authorities.

Indigenous technologies currently taking a back sent, such as Ayurvedic Medical treatments in Medicine and 'Kem and Rituals' in Agriculture, may get a second chance to gain wider recognition. Local communities could use the net to contract other interest groups around the world and exchange their ideas and gain more recognition. Village leaders may be able to compile information passed through the generations, from the old cupboard-drawers into CD-ROM databases. With the correct touch of university scientists and local entrepreneurs, such databases may produce money in one hand and contribute healthy results to the community in the other. Medicinal value of the 'Adathoda' or 'Pathpadagam' may be better identified, formulated and widely applied among the community at large. The egalitarian attitude of the Internet community, who share views and exchange information without regard to the race, colour or nationality will be highly complementary in such an exercise.

All in all, the deteriorating level of confidence of the rural communities due to malpractice by the colonial rulers and their followers, will be rebuilt as they get a better chance to express themselves without a need to build platforms to reach society.

Usage of Internet for the rural community

As of 1995, the demographics of the Internet community in the USA reflect the fact that the majority are university students, lecturers and scientists. Though the situation is changing at a very high speed as the commercial vendors start to turn it into a market place, it is worthwhile to consider the potential scenario in Sri Lankan rural outskirts, if they were provided with wide access to Information Technologies.

Despite the availability of various printed and electronic mass media, the community at every corner of the rural sector is still deprived of appropriate information. According to a recent survey on the basis of introducing biotechnological products to banana farmers, we identified that the basic problem in the farmer community is their psychological reluctance to accept already available basic information. 76% of the farmers responded negatively showing their lack of interest in science programmes on television, while 72% responded the same way for radio. If reflected, that in the rural community the word 'science' is something remote. Popular belief is either that science is something for science college-students or that they should be educated to share such information. They hardly recognize their own skill at producing a wheel for a bullock cart from unprocessed timber itself is a part of science. This illiteracy about science is deeply rooted in the psychology of the rural society. And this problem will be a major obstacle to the development of the country as a whole nation.

Information Technology would have a greater capacity, provided proper implementation, to eradicate this naivety. Though the computer has gained such a high respect as a very sophisticated, state-of-the-art technology, it is remarkably simple to use and can become the pet of any human who might not even be able to read the characters. The usser-friendly screen can be maneuvered even by a small child. Any rural folk who start to interact with a computer, due to this characteristic, will break the mythical barriers projected into science as a subject. Hence, the changes would be enhanced for the rural society to comprehend the real essence of science.

Information Technology to promote the community volunteer spirit

The 'community worker' is generally considered as a person with a big heart and high ambitions yet with very limited resources in hand. This is the case with many people who dedicate their life, serving poor segments of the society. The same picture is common for the majority of NGOs who are composed of groups of such individuals. They are highly motivated to serve, spirited to see results. Peter Drucker, management guru identifies the management style of the NGO sector as a very unique one, especially due to the fact it is governed by highly dedicated individuals. If such dedicated individuals are equipped with the tools of Information Technologies, the community would be better served. However, compared to the private sector industry, NGOs are the least well-equipped with Information Technologies. As a result, they hardly enjoy the fruits of Information Technology, which generally bring about office automation- computerization of tasks such as typing, accounting and filing, information handling - with many NGOs, financing the overhead expenses of much required secretariat is a consistent problem. Desk-top computer with a modem connected to a phone line may substitute a secretariat of few persons, where one person can run the whole office even without recquiring his full time services.

Leaving aside sophisticated systems, desk top publishing alone may help to reach the wider attention of today's quality-conscious public, which may carry NGOs' message a long way without much cost. There are only few NGOs in Sri Lanka at the moment capitalizing on this potential. They produce desk-top-publishing news letters without having printing presses or big editorial boards, instead having only one dedicated individual with a computer.

Home pages in the internet would give NGOs a wider exposure to enhance their fund-raising, share their wealth of work-oriented experience and develop corporate linkages, all of which would empower them. Further they would be able to enhance the number of their clientele. Web-page of the Sarvodaya movement (http://www.sarvodaya.org), for example, propagates the organizational philosophy, information and provide volunteering opportunities for the national and international village-experience-seekers. It also acts as a window to interact with Sarvodaya-Japan etc.

Empowering NGOs through Information Technology would be, in a way, an efficient way to transfer the benefits of the technology to the rural sector. Recent experiences at a Sarvodaya district center located at Kahawatta (Ratnapura) is a fine example. The initial intention of providing Information Technology to the center was to improve the management efficiency. However, it became secondary as the nearby village community, especially youth, showing much interest to interact with computers and tuition masters visiting to get quality printouts for their class-room hand-outs. The development are presently reaching a stage of offering the Internet and e-mail services to the community.

NGOs working with handicapped people may find Information Technology an attractive means to mobilize their full potential. As even a blind can work on a computer using Braille key-board system or voice operated system, they can translate their imagination into communciable means more effectively, which would certainly be an effective exploitation of their potential.

Information Technology to uplift the state economy

Canada is emerging as a good software market for the growing multimedia industry. This was attributed to the fact that their multicultural inheritance provides attractive innovations in the production of multimedia software. It shows that the role of the nation is vital in the emergence of a new Information Technology era. Sri Lanka has a reputation within the region for possessing youth with high IQ levels. This promises to put us in a good position in the global competition to search for every nations share, as IQ is one of the essential ingredients to develop Information Technology as an industry.

Nevertheless, if we are to position ourselves in this rat race, we have to be very organized as a nation. Enrollment of different community segments is a vital fact in such an approach. Japan, identify themselves as the flag-carriers of the electronic industry by positioning every segment of the community in an important role. In this way, the whole country works at technology development, and the whole country shares the benefits. While Japanese universities do the basic research, the commercial sector is engaged in transforming basic inventions into consumer-oriented products. Then the smallest part of the assembly line starts from household-based industries located in remote outskirts, which would finally pump the inputs to the main assembly lines of giant companies such as Sony.

In an ideal world, if the universities and other government institutions are properly harmonized with the production lines of the upcoming industrial parks located around the country, and if such industries attempt to share their middle level input requirement with the home based mini-industries such as system could be replicated in this country as well.

How to explore the potential?

The high promises of the Information Technologies also silently echo the underlying heavy cost of basic infrastructure. The personal computer, telecommunication connection and viability of electricity are all critical factors in deciding the budget as well as the accessibility to the technologies,. Further, the associated recurrent costs such as user-training, line use and system maintenance would mean a considerably high monthly budget to the ordinary people in this country.

Despite the high literacy rate enjoyed by Sri Lankans, the dominance of English language material in the case of the Internet, for example, would pose a big challenge. Mass availability of local language material to interact with Information Technologies is a key determining factor of the local community participation. Though local language software of customer needs. The availability of locally originated material will be the next critical determinant. It is hard to find a CD (for a CD ROM) carrying local material, local technologies, information about Sri Lanka, useful data bases etc.

Almost every day expansion of the national power grid as well as the fast growing telecommunication network are encouraging. The growing trend of the PC market shows how people, especially young groups, tend to welcome computers. This trend has not been limited only to the city elite. Even in areas like Ratnapura and Batticaloa, similar trends can be seen. The question remains how to exploit these trends to advocate the development of the community as a whole? How to obstruct the potential further disparity between the *haves and have-nots?*

A recent survey done in the Ratnapura district shows that the rural community awaits the arrival of basic facilities such as computers and laser printers, before Internet and CD ROM databases. The simplest products of Information Technology, such as improvement of the outlook of the leaflets distributed at a tuition class itself is an important contribution. A lot of parents showed an interest (69%) in gaining more information about the available education opportunities for their children. Though people in very remote villages are sensitive to having Information Technologies, they are very skeptical about Information Technology becoming another means to intensify their exploitation by private-sector entrepreneurs.

Nevertheless, rational choices have optimistic solutions. To reap the benefits of Information Technology for us, it may not be essential to have computers at every home. It is a choice between imitating the western world or selectively localizing the appropriate forms of Information Technology. Rather having local centers (similar to agency post offices) equipped with computers, fax machine, telephone connection along with a printer, scanner and a photocopy machine, would enable the provision of Information Technology services to the local pockets. Hence the burden of heavy capital investment and the recurrent expenses on an average person could be substituted with a system of charging for services. Ongoing pilot project at Sarvodaya Movement to introduce Information Technology to the rural people shows encouraging results. It shows that exploring the potential of Information Technology to bring about answers to the poor segments is a true promise, not a misleading illusion. Nevertheless, a lot of homework is required to convert the promise into a reality. Identifying new partnership types such as NGO-Private sector - where NGO providing community mobilizing expertise to popularize the technology and private sector company drawing financial and technological resources, is a prerequisite. Ideal partnership situation would be NGO - Private Sector along with a University. With the need of more research to further customize the presently available raw-technologies the Universities has a big role to play. ICT (Institute of Computer Technology) at the University of Colombo, Media Center of Open University are very much in favour of this connection. The present project at Sarvodaya is a combined effort together with ICT and CeyCom Global Communication Limited. Such combined effort is essential to find our own rhythm in the usage of technology for the benefit of mass community.

Information Technologies, by their very nature have the capacity to mingle with any nation, any culture or any society to meet the demands of their overall needs, starting from their basic food production up to automation of the office or factory environment. Yet moving a nation to explore this potential will not be a simple challenge. The degree of our success as a nation to adapt to Information Technology rather than subscribing to western packages, while preserving the inherited virtues as a historically long outstanding nation, will certainly decide our place in the tomorrow's global society.