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Harmonisation of Global Economy: The Role of Information Technology

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Twentieth century has witnessed the most breath-taking developments in science and technology, concern for human development and quality of life. Many elements are building a new global economy. First, revolutions in the field of communications and information technology. There has been explosion of knowledge and information. Modern advances in information and communication technologies (ICTs) are taking us to a post-industrial age, with profound implications for economies and societies. In this new era information matters most of all— how easily it can travel through the economy and how well it is used. Second, the spread of market force and erosion of centralised economic controls due to technological changes. Third, global integration, the most spectacular aspect of new global economy— an economy in which goods, capital and information flow freely across the globe to where they will be most effective in spurring growth.

Global Economy

The informational economy is global. A global economy is historically new reality, distinct from a world economy. In a world economy, capital accumulation proceeds throughout the world. A global economy is something different: it is an economy with the capacity to work as a unit in real time on a planetary scale (Castels, 1997, p.2). It is only in the late twentieth century that the world economy was able to become truly global on the basis of new infrastructure provided by information and communication technologies. This globality concerns the core processes and elements of the economic system.

It is clear that the transition from the industrial society to an informatics or information processing society could not take place on the economic level only. ICTs are leading to more flexible learning environments. The feasibility of interactive learning between teachers and learners is becoming a reality for some in developing countries. With the explosion of Internet activity and the increasing use of ICTs to support distance education as well as interactive learning in the classroom has begun to help overcome problems of cost and location in the provision of education and training. In principle, the concept of virtual university is emerging.

The global information infra-structure offers new access to extend learning resources. Access to education networks can evaluate students to participate in lectures with the 'best teachers'. In theory oral communication and learning tradition can be emphasised via video-conferencing, and group learning via computer conferencing and email.

ICT– Benefits and Challenges

The most characteristic and determining feature of the informatics society is no doubt the speed with which it is altering our cultural environment and habits of mind. Computer is invading our lives, changing our human relations and our relationship with the world. We would require generic skills to face some of the challenges we think will emerge in the 21st century. For example, frequent changes of job, frequent upgrading of skill-sets will be the norm. Educational technology will be used to provide educational and training facilities for people who live in the remote rural areas and also some sections of the urban population. Computer technology will develop very fast. In some developed and developing countries, computer technology will become, in some way the norm. Technological innovations will bring in new skills and we will have to manage change to put it in a proper place and perspective. Already, ICTs no doubt have bridged many barriers. There has been fast diffusion of knowledge, information, culture and enormous benefits to mankind but there are some inherent dangers which have not yet been clear as many studies have not yet been carried out to know the negative impact of ICT. We shall have to acquire skills to cull out the information that is suitable for our local needs and aspirations and develop the capability of understanding the globalisation of information.

The increasing use of information technology and the interest in public life today brings with it enormous benefits but they come with their challenges. The recent unprecedented terrorist attacks on the US highlights the importance of using IT in information warfare and interception. Many nations have complex IT infra-structure managing electricity, telecommunications, money supply, air traffic, oil and gas, and other information-based civic amenities. Computer networks, particularly the internet, make such systems within the reach of even a hostile person or organization anywhere in the world. This also threatens the economic life lines that were till now out of bounds of a conventional enemy attack.

The number of security incidents increased from 10,000 in 1999 to about 22,000 in 2000 and to about 52,000 in 2001. (*Times of India*, 22.1.2002).

With every new change, new realities emerge and with this education also needs to change. The UNESCO Report (1996), popularly known as Delors Report, Learning: The Treasure Within' reflects on education in the 21st century in the global context. This report analyses various types of tensions that characterize modern society. These tensions are between: global and local; universal and individual; tradition and modernity; long term and short term considerations; competition and equality of opportunity; and extra-ordinary expansion of knowledge and human capacity to assimilate. It also points out that education should also make us better human beings with humane qualities and make the world a better place to live in. Four pillars of education— Learning to Know; Learning to Do; Learning to Live Together; and Learning to Be have been mentioned in it. In Indian way of life, these are 'Gyana Yoga' (Learning to Know), 'Karma Yoga' (Learning to Do), 'Sehna Bhavatu, Sehna Bhunaktu' (Learning to Live Together) and 'Atmanam Ridhi' (Learning to Be). The perspective in this report calls for need of education for developing understanding of other people, which has also an important cultural aspect.

Harmonisation of Global Economy

Globalisation through ups the major challenge of harmonization of different kinds of culture. This can only be possible through reorientation of the entire educational system where information technology is improving the reach and the methodology of instruction while the content of education has to be such that responds to the explosion of knowledge.

We have to work together, live together and achieve together. Unless we learn to live together, the global society will become a global disaster. We need to learn social values, the values of cooperation, harmony and the democratic values. The creation of a global Indian 'dot-com-munity' has made possible for Indians to access the world and the Indian diaspora to re-access India, both instantaneously. This creates a community, which has new possibilities – economic, cultural and diplomatic. Despite India's low share of world trade it may acquire high share of global social and cultural interaction. Few nations in the world are likely to experience this phenomenon as intensely as the Indian digital diaspora and the dot-com-munity will. There is need for achieving spiritual illumination which cannot be achieved through computer. There is need to develop aesthetic dimension of the human personality, i.e. the natural beauty. We need to preserve it.

The developed nations, which have enjoyed the materialistic world and the benefits of technologies, are running in search of inner peace. For this, they are moving towards spiritualism and religious knowledge, which has nothing to do with the communal tension. There has to be a balance in the development of human personality.
The effectiveness of the ICTs will vary in each developing country. Access to ICT-based education and training is one thing and maintenance of ICT-based systems need is another. The gaps between pedagogy and technology will have to be bridged. The usefulness of ICTs in education is evident but cost is an inhibiting factor in terms of the expense of hardware and software, maintenance and infrastructure costs, including electricity. Quality of skills and inequality of access to applications are two major issues. The use of ICTs is likely to be more successful when it augments, rather than replaces, existing locally developed education systems. The 'global' or 'virtual' classroom offers new possibilities, but the importance of schools where people meet, socialize and build social networks should not be overlooked. Distance learners will continue to need opportunities to meet in a physical place as a necessary complement to ICT-based exchanges.

Indian Scenario

India has widened access to higher education quite extensively during the last 53 years of its independence. The typical institutionalized teacher-center system, considered relevant to industrial society, is changing. India is now at the stage of changing over to an information-focussed society. Higher technical education and research was one of the earliest ones to take advantages of computers. However, over the last two decades computers in India have taken a pride of place. They have not only been used in research, in scientific research, in technological research but also increasingly used to deal with huge data which are otherwise impossible to deal with human beings. ICTs are also spreading fast. E-mail, internet, network access, etc. are

becoming widespread. These processes of globalisation are changing the organizational structures, working and the ways of living.

Some New Initiatives

Efforts are now being made not only at national networks but regional and global networks. Ministry of Human Resource Development has set up rupees one million Indian Institute of Information Technology at Gwalior, Madhya Pradesh. Another significant initiative is to build Rs. 700 million Tamil Nadu Institute of Information Technology. In a major move to provide a fillip to educational activities in the SAARC nations, about 300 Universities of the region have formed an association called the Association of SAARC Universities (ASU). The New York University's Rectors Group encompasses diverse cultures, languages and the most dynamic cities worldwide. Universities in the group are united by a commitment to the advancement of knowledge transcending political boundaries. It considered, Visiting Student and Scholar Inter Guest Sites, World Wide Seminar Series, Rectors Group Lectures, Global Public Policy Telephone Forum and Web. UNESCO (1996) has also initiated a Globally Oriented Education Network. The participating members are making efforts to establish a global network of Universities which will cooperatively develop an innovative approach to prepare students for careers and lifestyles in a global society of the twenty-first century. Jawaharlal Nehru University (JNU), a premier University of India, is a member of both Rectors Group and UNESCO's Globally Oriented Education Network. (Malik, 2000)

The proposals by the State Governments to develop 'IT for the masses' place emphasis on improving education at the higher levels of IT. Organizations like Infosys Foundation are also spreading computer literacy among school children.

Conclusion

To developing countries a concern of more fundamental nature is the danger that their own cultures, value, national independence and integrity may be seriously threatened as a result of information revolution. As the developing countries cannot escape the need to face up to the challenges, which the informatics revolution now confronts them, knowledge of and capacity to deal with these issues, will have to be developed by educating the youth on such issues. They will have to inculcate greater understanding and appreciation of cultural differences between nations.

As Indian economy opened up only after 1991, our understanding of the forces of globalisation is fragmented and piecemeal. We need to develop a more comprehensive and holistic view so that its impact on higher education in India can be realistically assessed. To remain competitive in global economy, India will have to empower its manpower to use Information Technology which will require training of knowledge workers and administrators in the use of IT. For successful integration of IT in higher education, teachers and administrators will have to be empowered.

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