Role of Open and Distance Education in Integrating Education with Development – Emerging Model of Networked Collaborative Learning and Net-working

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Introduction

A long term goal of the *National Policy on Education* (NPE) is to develop an Indian system of education appropriate to the needs and requirements of modern India. In these days of fast changes, education is becoming a necessity of each one; and ensuring Education For All and Learning Without Frontiers is becoming the objective of the education system.

India is faced with many challenges — internal and external. They are the large numbers running into millions who need education and training at various levels, the socio-economic disparities and the cultural, linguistic diversities. Further, the development of different states is also not uniform and the facilities of good education are concentrated more in some selected urban centres keeping vast rural population and territory neglected.

Humanity is undergoing a great transformation into information society through newer communication technologies and their adoption in life and work situations. This has created a process of globalisation and liberalisation. In such a changing scenario, the major concerns of the higher education are (a) increasing access to larger number of learners, (b) ensuring equity in offering learning opportunities and facilities, (c) making educational programmes relevant to the needs and requirements of the people, and (d) raising the quality and standard of education.

Stages of Evoluation of Educational System

The present education system has evolved through ages from the Gurukul system, appropriate for an agrarian society. The current university system is appropriate for the industrial society. As we make the transition to the new information society, the existing educational system is bound to change to a newer system. The emerging system most probably will be the networked system of education. The Gurukul system used oral communication and memorisation, and handwritten manuscripts as the media for communication and presentation of knowledge. The university system mostly uses printing medium and print technology for storing,

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transporting and communicating knowledge. The next system will have electronic media, for storing, accessing, retrieving knowledge. The open and distance education system is evolving and undergoing generations of changes. The correspondence courses relied mostly on postal communication whereas distance education is using multiple media such as print, audio, video, etc. The next generation will see electronic communication as the main way of storing and communicating knowledge.

The communication technologies are in a great flux of change – higher technologies are getting developed, pushing out lower technologies, and higher technology is often requiring higher skills, higher knowledge and higher intellectual abilities for their use. Newer technologies are coming up fast making the older, obsolete. They also need learning newer skills. Emergence of global communication network has not only created globalisation and liberalisation but also an urge for higher standards and quality.

Newer Communication Technologies

Communication technologies can be broadly classified into two types:

(a) Mass communication technologies mainly of the type of radio, TV, etc. However, modern facilities are allowing selection and interactivity as in Cable TV, various channels, teleconferencing, direct-to-home TV (DTH).

(b) Personalised communication technologies allows one to one or one to many as well as many to many selective communication. They include telephone, e-mail, fax, LAN, WAN, etc. Satellite communication is helping in the development of various types of committed network and the internet is expanding fast for global communication. India is also developing various types of networking.

A major development in the field of electronics is the integration or convergence of TV and computers. Computer science and telecommunication science are getting integrated on a single platform and with the high band width gradually being made available by many satellites, the global communication is now going through a dramatic change. The newer technologies are using mostly digital and compression techniques.

Every technology has its own characteristics with its own limitations and facilities. A network such as internet when widely used, offers different types of facilities; their wider use generates (a) globalisation, (b) liberalisation, and (c) equalisation. The networks allow learners freedom and choice of using network at any place, at any time convenient to the user. Further, the network facilities promote decentralisation; a small group of persons from various parts of the world can form Special Interest Groups and pursue the interest through a regular communication. The communication technology has another great advantage not shared by most other technologies. The costs are falling down, and within a decade or two, the net may be accessible and available to all with negligible cost.

Educational Network

The open and distance education system in India has planned to develop

(a) National and State Open Educational Net (OPENET), and

(b) Indian Training and Education Network for Development (INTEND).

A new communication media for educating is getting developed. The media called knowledge media is emerging with integration/convergence of computers and telecommunication sciences, with learning and cognitive sciences. This integration is leading to newer products and methods of learning at a distance.

The OPENET is designed to be a network of physical and intellectual resources of open and distance education institutions, allowing resource sharing for the larger benefit of learners. The OPENET will be used by all the open universities and distance education institutions in the country. It will link, besides these institutions, all their regional centres, study centres and partner institutions.

The other network INTEND will be an umbrella network to be used by various agencies and organisations under the Ministry of HRD, Government of India. The INTEND may have sub-nets such as MHRD Teacher Training Network, UGC Information Network, OPENET, etc. Each participating university or institutions may establish their own network of affiliating institutions. The network can be used (a) as a distributed classroom, (b) for computer networking and information communication, (c) for giving information access points such as multimedia learning centres, study centres, etc. Many functions such as training, educating, communicating, tele-conferences, tele-meetings, etc., could be organised with synchronous and asynchronous activity among participants.

Open and Distance Education over Network

With wider percolation and use of telecommunication technologies, the conventional classroom is likely to be changed to a distributed classroom. A teacher from his institution or home may communicate through the network synchronously or asynchronously with the students distributed at various places. However, this still remains the teacher centric learning process; teacher controlling and guiding the students. However, the network technology allows one-to-one and many-to-many communication and will soon have to change the teacher centric approach to a much more participative learning approach.

The open and distance education system offers well designed and structured self-instructional materials (SIM). The material will be on electronic media and the network will serve the interactivity between learners with learning resources such as library, information centres, experts, teachers, etc. The distance education emphasis is on developing instructional material that will be learner centric, which allows the learner to learn independently while working. Relevance of the self-instructional material (SIM) lies in the effectiveness of using knowledge in real life and work situations. In the process of learning and working the learner should

acquire comprehensive learning experience. The network would be ensuring higher interactivity amongst learners as well as between teachers and students. Quality and effectiveness of interactivity will also be higher if higher technologies such as video conferencing are used. Network will soon lead to the convergence of the traditional and open and distance education systems.

Policies and Programmes for Transformation over Network during 9th Plan

The Distance Education Council (DEC) has adopted the following major programmes :

(i) Existing linear structure of the programme consisting of to some courses/ papers leading to a degree will be changed into a spectrum of large number of modules based on competencies required in working and living situations. Each module could be assigned pre-determined credits and pre-requisites as well as co-requisites. Any learner can pick up a module of his/her choice, study it, and use it in his work situations. Successful completion of some identified modules should lead to awarding diploma or degree.

(ii) Existing print material will be slowly transformed into print and non-print material appropriate for using on network. Initially management and computer courses have been identified for the transformation.

(iii) OPENET would be established and used for offering academic, administrative and information services to learners. To use OPENET effectively, every partner institution will have to develop local area networks (LAN) for internal functioning. The DEC has undertaken a major programme to support such a transformation for open universities under its fold.

(iv) The network helps not only learning at a distance but also working at a distance. This enables us to develop virtual work places and virtual divisions, departments and institutions and even a virtual university will soon become a reality.

The Ninth Plan proposal of open and distance education system formulated by DEC essentially concentrates on three components:

(i) Capacity building of open and distance education institutions by using communication technologies and by developing relevant programmes appropriate to the local needs;

(ii) Development of INTEND and OPENET with telecommunication facilities initially going up to the district level and ultimately reaching to every block level offering access to learners scattered all over the country.

(iii) Development of high quality programmes in a variety of disciplines with greater relevance to different target groups such as teachers, construction supervisors, managers, etc. The common pool of programmes could be

contributed by each participating and collaborating institution, could be assessed and accredited by DEC for its quality and standards and made available for use by the collaborating institutions. Such an approach of sharing expertise and resources for the benefit of a large number of learners will surely lead to collaborative working and learning.

The concept of partnership is a key factor in the process of networking. Newer models of partnering with institutions are being developed by IGNOU and DEC. The national open university is itself linked with state open universities by sharing national facilities and common pool programmes.

Newer models of collaborative working with a university at the state level are being evolved so that distance education programmes of IGNOU-DEC could reach larger numbers and rural areas with active participation.

A new model of state open university is being evolved for the Orissa State Open University that would fulfil the educational and training needs linked with developmental activities of Orissa.

The whole approach is to change the teacher centric 'classroom' into a learner centric distributed learning system by using OPENET and learning resources. The network and associated, learning process would encourage group learning, learning the same course from different expert inputs, applying learning in real situations and learning/reforming the work or life situations. The network of education and knowledge will, therefore, promote a different teaching-learning process giving rise to a new education system – a new paradigm in which a cooperative and collective endeavour will dominate. The system can ensure access to distant learners, ensure high quality of SIMs and delivery mechanisms and raise quality of academic interactions. We, the persons working in the open education system trust and believe that we are evolving a resource based networked education system — the knowledge network — appropriate for the 21st century.

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