# Applying ICT in open and distance education

■ Ritimoni Bordoloi, Prasenjit Das

The information and communication technology (ICT) has rendered great services in the field of open and distance education in India. It has been realized that the democratization of education is possible only when the applications of ICT is ensured to its optimum level. Defined as a diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information, ICT has made the process of teaching-learning interesting, and has also inculcated a practical mindset among the learners. In fact, the use of ICT has broken the trends of the conventional ODL system by providing learners and experts comfortable places to discuss, share and exchange knowledge and information on various topics through a global network.

As we all can see, the growth and penetration of digital technologies in recent years have greatly influenced education and the educational practices in India. The Indian Government also has plans to spend abundant resources on ICT aimed at enhancing access and improving educational quality in India through both the regular and the distance mode. As the Government increases its investments in ICT for education, continued efforts must be made to ensure that the investments in technology positively impact all aspects of education, including intangible aspects such as community development, psychological and cognitive developments, and development of social skills and of critical and creative faculty.

Thus, while dealing with the issue of using ICT in open and distance education, one cannot but refer to what the National Knowledge Commission (NKC, 2009) of India has to say. It has stated: "The biggest challenge in higher education, therefore, is the provision of quality higher education to the greatest number, at the lowest possible cost to the learner." What is also important is the fact that the National Knowledge Network (NKN) also aims at establishing a strong and robust Indian network which will be capable of providing secure and reliable connectivity to all participating educational institutes. It is hoped that using the NKN, all vibrant institutions of India will be able to transcend space and time limitations in accessing information and knowledge, and derive all associated benefits for themselves and society. Print media, audio media, audio-visual media, telecommunication and multimedia communication are the different stages of the use of the ICT in India, which are being experienced in educational transaction in all higher educational institutes throughout the country.

The application of ICT has helped in spreading education in two ways – one is access, and the other is effective teaching-learning. It has given the facility to reach out to a large number of people effectively in no time. For example, with the help of transmission networks and satellite-based communication systems, an institute can access a large number of the population. After telephones, fax machines and mobile phones and now computers have brought technologies closer to people. The latest trends in teleconferencing which includes audio and video conferencing and computer conferencing have made the application of the ICT much more productive and efficient. Subsequently, there emerged various other technologies to suit the requirements of the content being used for teaching. Electronic mail or e-mail has become the order of the day. Of late, Web 2.0 technologies have greatly transformed the educational environment with various tools like Blogs, Wikis and Rich Site Summary (RSS) as student support services irrespective of the mode in which one is conducting the teaching. Other than these, e-portals and social networking sites within the educational institutions are gaining tremendous popularity in bringing together all those concerned with a meaningful educational interaction. Communication technologies have, to a great extent, replaced both the teacher and the textbooks by placing the learners at their own in the learning process.

In an economically underdeveloped and educationally stagnant Indian region like the North-east where ODL still needs expansion, ICT enabled education may be considered a solution to the various problems of outreaching. Of late, the North-east, like the other parts of India, has experienced tremendous growth in the use of technology to enhance learning through the distance mode. The Indira Gandhi National Open University (IGNOU) provides multi-channel, multiple media teaching-learning packages for instruction and self-learning. The educational radio and television channels like Gyan Darshan, a fully digital 24 hour exclusive educational TV channel, Gyan Vani, a unique radio service of IGNOU have played a prominent role in supplementing the teaching-learning process. This exemplifies the feasibility of using the ICT to effectively enhance the learners support services even in the north-eastern part of India.

The applications of NKN, National Programme on Technology Enhanced Learning (NPTEL), National Mission for Education through Information and Communication Technology (NMEICT), SIRD linked with the satellite hub with SITs (Satellite Interactive Terminal) in the North-east can bring in a marked difference in the functioning of the educational institutes of this region. KKHSOU is the first among the Universities of the North East to be connected with NKN. Following the Government announcement in the Budget Speech of 2008-09, an initial amount of Rs. 100 crore for the year 2008-09 was allocated for establishing the National Knowledge Network with an objective to bring together all the stakeholders in science, technology, higher education, research and development and governance. This has been a major boon in the education sector of the North-east as it can be extensively used in areas like agriculture, education and health.