Chapter Three

DISTANCE EDUCATION: A PROFILE

Education, regardless of the level, stage and the mode of it, necessitates the presence of teacher, student and the effective communication of a message between these two. History of mankind, as well as that of education, stands testimony to the fact that advances in technology have powered paradigmatic shifts in education. But, the shift in educational paradigms in favour of open and distance learning have been triggered not only by the technology driven possibilities and potential, but also by ideological and economic imperatives. Distance education, in its crude form owes to the efforts of the 19th century adult education activists of U.S, who encouraged studies at home for women to reap the educational benefits for all classes of the society. For decades, together the validity, relevance and substitutability of distance education to regular mode of education has been seriously doubted and debated. Even now a days, it is being debated vigorously. In the early 1930s Chicago University survey on distance education suggested that correspondence education can be justified on an experimental basis, generating innovative research leading to improvements in teaching methodology. Along with mail delivery, visual and audio media were incorporated to the delivery system. The popularity and effectiveness of instructional radio led to the introduction of television as an instructional media by the mid 20th century. Academic research and studies were
focused on the effectiveness of various media of instruction, learners’ characteristics, student’s needs, effectiveness of communication, value of outcomes in comparison with face-to-face study etc. All these efforts in this direction genuinely contributed towards strengthening the resource base of distance education. By the end of World War II television became the most popular media of instruction in distance education programmes worldwide.

Despite the efforts of leaders in the field of distance education, correspondence study struggled to gain acceptance and it was still seen as suspect by academics. Research and studies on the various aspects of distance education have contributed towards furthering the acceptance of distance education and extension of it. One important thing to be noted is that little research existed to support the apparent and perceived strengths of methodology and there was little sense of professionalism. The role of international agencies like Ford Foundation in strengthening the base of distance education is noteworthy. Sixties and seventies witnessed quantum jumps in the field of distance education globally due to the rapidly escalating cost of traditional education, interest in non-traditional and informal education, increase in the mobile population due to the variations in the employment structure, growth of career oriented activities, necessity of learning competencies, public dissatisfaction with
educational institutions in general and the early success of Britain's Open University.

The emergence of Britain's Open University has been a landmark in the history of distance education. It has brought a new vision of independence to distance education as distinct from traditional education and played a crucial role in the development of much of the important research in distance learning, as the largest and most innovative educational organization in the world. It is regarded as the pace setter in the large-scale application of technology to facilitate distance learning and it has brought the needed respect and confidence to the correspondence programme around the world. The success of British open university has led to the origin and development of open universities in other countries such as America and Japan. The British Open University has proved that distance learning can overcome the restrictive concept of place and time, but also can eliminate the boundary of nations and nationalities. As per the latest available statistics Britain's Open University has an enrollment of 218,000 people and it offers degree, P.G and professional courses including research degrees like PhD and M.Phil. Being inspired by the success of British experiment, the first United States Open University, New York State's Empire College commenced operation in 1971 with the purpose of making higher education degrees accessible to learners unable to attend traditional programmes and campus based courses.
Two luminaries in the fields of distance education are Charles Wedemeyer of the University of Wisconsin and Gayle Childs of the University of Nebraska. Wedemeyer and Child have made major contribution towards the professionalisation of distance education. During the last three decades spanning from 1950s onwards, they were the leaders, directing the national and international growth of this method of teaching and learning.

The Seventies and eighties witnessed the emergence of epoch making innovation of the concept of “Distance education” and new media like cable and satellite links were used for the delivery of study materials posing challenges to traditional independent study, forcing a reexamination and redefinition of the place of independent study in the new environment. Women’s desire and participation in distance learning helped the growth of distance education in 1980s and 1990s. Survey among participants has shown that more than 67 per cent were women. Participation of women in distance education was directly related to political and social changes in women’s position within the family and society, technological changes in the work place, and the necessity of participation and job market and new job opportunities. The research activities of British Open University provided new directions and emphasise for more research in this field. With the increase in demand for distance education, the growing concern were knowledge about the
effectiveness of distance education and changes in pedagogy enabled and required by the advancement of technology. An area that remains gray is the effectiveness of distance learning and it is in this pivotal area that more research is needed. In this context, two scholarly positions that stand poles apart need to be mentioned. One prominent opinion is that media forms are mere vehicles that deliver the materials and hardly they influence the student achievements. Secondly, in contrast to this, it is believed that, it is not media, but variables such as instructional method that foster distance learning. Even with the amazing growth of research in the fields of distance education, few studies attempted to examine the student experiences, effectiveness of instructional methods, and strengths and limitations of this model of teaching and learning.

The historical evolution of distance education can be divided into four telescopical stages as explained below.

1. Correspondence and Independent Study
2. Open Universities
3. Broad Casting and Tele-conferencing
4. Multi Media and Networking

Correspondence and Independent Study

This is the oldest form of distance education that prevailed during 1890s in which education has been imparted through the use of print materials distributed through mail. This form of distance education
prevails even today in many of the institutes of India, along with the most modern delivery devices like computer and multimedia.

**Open Universities**

The development of open universities were due to the increasing desire to use more media, especially radio and television in distance learning courses, and the imperative of opening up higher education to a larger percentage of the population. The basic idea of this approach was that by using various media and eliminating entrance requirements, college level courses and degrees could be offered at an affordable price to many more people. The British Open University was the first institution to be put this form of distance education into practice. Now a days there are dozens of open universities around the world.

**Broadcasting and Teleconferencing**

Educational broadcasting has been practiced in the U.S since early in the 20th century. Radio entered into the field of educational broadcasting in 1920s and television in the year of 1950. But it did not became a common component of it education till 1970s. By that time, audio conferencing became a part of distance education programmes in a number of universities. The mid 70s witnessed the widespread use of
satellites and teleconferencing. This system required huge investments and large group of students for becoming economically viable.

**Multi Media and Net working**

With the advent of computer technology and widespread use of computers at home and workplaces, two new forms of technology became viable for education purposes. Multimedia especially CDROM and computer networks helped to distribute large amounts of course materials in a more cost effective manner. Computer networks allow courses to take advantage of email and computer conferencing. Apart from the fact that these two represent ways of imparting more information and provide more interaction among students and instructors than previous technologies.

**The Concept of Distance education**

The concept of distance education, though formulated recently, has caught the attention, if not imagination, of the planners all over the world. It seems to be an answer to the tremendous educational and development problems faced by countries determined to bring the benefits of higher education to those who desire or seek it. Though distance education has been popularised in all countries developed and developing, socialist and capitalist, western and eastern, it is still "little
known and little studied” (Keegan, D 1986). As Keegan points out, “even a cursory reading of educational literature shows that distance systems are usually ignored. It merits not a paragraph in most volumes of educational philosophy, in guides to administrative process or in analysis of didactic strategy”. However, its importance is being realized all over the world, and certainly in developing countries, more by the policy makers than by the educationists. (Ramanujam, P.R 1988: Koul, M.L 1987) hat is Distance education Multiple terms are used to connote distance education and the term Distance education conveys multiple meanings. A variety of synonyms of it are familiar to us. viz; ‘Correspondence Education’, ‘Home Study’, ‘Independent Study’, ‘External Study’, ‘Off Campus Study, ‘Open Learning’, ‘Open Education’ etc. In some countries, the term ‘Correspondence Education’ is widely used. But, it has increasingly being replaced by the term ‘Independent Study’ in North America. Home study is some times used to describe correspondence programmes of private schools in North America and Europe. In France, it is known as ‘Tele-Enseignment’ or ‘Fernunterricht’. In Spanish speaking countries, it is described as ‘Education at a Distance’ ‘Of- campus’ is the term which is popularly used for Distance education in Australia. ‘Extra-mural’ refers to Distance education in New Zealand. These terms have came in to vogue because of the historical circumstances in various countries.
In India, we have been using three terms, "External Appearance" (Private Appearance) 'Correspondence Education' and 'Distance education'. Under external appearance, a university permits a student to take the examination as a private candidate and if he/she passes, degrees are granted. Hence, it cannot be regarded as distance education. The student is on his own and very often at the mercy of the mercenary tutorials institutions. Since, the universities do not give any education, what is being done under external appearance can best be called 'private study' but not Distance education. The second, correspondence education, has been quite popular in this country. Lately, some of them have designated themselves as Distance education and open university systems.

The concept, methodology and mode of operation, on which Distance education operates distinctly distinguish it from the traditional educational system. It operates mainly on three concepts. The first, being learner centeredness, Second, learner autonomy, i.e. very minimum provision of face-to-face interaction. Third is the education in real life setting. It is usual to confuse the terms correspondence education' (CE), Distance Education (DE) and Open Education (OE) with the other.

It is true that openness to methodology is a characteristic of distance education, but, it should be noted that 'non-distance education'
or 'face-to-face education' also may use 'open' methodologies. More over, distance education, is possible without being open. Distance education is an expression which officially replaced the earlier term 'correspondence education' in the 12th World Conference at the International Council for Correspondence Education, held in Canada in 1982. Since then the council was renamed as the International Council for Distance Education (ICDE). The expression marks a deviation from the earlier distribution-strategy-based nomenclature to the nomenclature representative of spatial and temporal relationship between the sources of education and receiver of the education.

Correspondence education refers to the traditional type of education given mainly through printed materials, by the postal system. Thus, correspondence education is basically a name based on the mode of distribution of didactic materials and of effecting interaction, if needed, between the teacher and the taught.

Distance education refers to non-traditional innovative type of education that uses all the possible means of communication, the postal system, being only one of them. Distance education is oriented towards pedagogy. It tries to build the teacher in the materials. The use of advanced communication technology is the essential characteristic of distance education.
Open Education refers to that kind of non-conventional education which has been weaning away from the conventional constraints that characterise the rational school/college/university education. This change is of the kind that was experienced a few centuries ago when sectarian education yielded to liberal education. This change was essentially curriculum-based. Now, liberal education is yielding to open education. This change is both curricular and organizational in nature. The relationship between distance education and Open education is that Open education is Open. Education can be imparted easily through distance education systems on the one hand and on the other hand advances in the practice of distance education help and encourage education to become more and more open. Naturally, the two go together, and therefore, the visible overlap. (IGNOU, Stride, E.S, 311)³

Definition of Distance education.

Distance education has been defined by several writers. Wedemeyer (1977)⁴ has used the terms 'Open Learning', 'Distance Learning' and 'Independent Study' in his works, but, favors, the last term consistently. According to him, 'Independent study' consists of various forms of teaching-learning arrangements in which teachers and learners carry out their essential tasks and responsibilities apart from one another, communicating in a variety of ways. Its purposes are to free on-campus
or internal learners from inappropriate class placing or patterns, to provide off-campus or external learners with the opportunity to continue learning in their own environments, and developing in all learners the capacity to carry on self-directed learning, the ultimate maturity required of the educated person”.

Moore (1977) defined distance teaching as the family of instructional methods in which the teaching behaviors are performed apart from learning behavior, including those that in a contiguous situation would be performed in the learners presence, so that communication between the teacher and the learner must be facilitated and learner must be facilitated by print, electronic, mechanical or other devices.

Dohmen (1977) defines distance education as “a systematically organized form of self-study in which student counseling, the presentation of learning material and securing and supervising of students success is carried out by a team of teachers each of whom has responsibilities. It is made possible at a distance by means of media which can cover long distances.”

Peters (1973) defined distance education as “a method of imparting knowledge, skills and attitudes which is rationalized by the application of division of labor and organizational principles as well as by the extensive use of technical media, specially for the purpose of reproducing high quality teaching material which makes it possible to
instruct great numbers of students at the same time wherever they live. It is really an industrialized form of teaching and learning.

Holberg (1981) defines distance education as that kind of education which covers 'the various forms of study of all levels which are not under study at all levels which are not under continuous, immediate supervision of tutors present with their students in lecture rooms on the same premises, but which nevertheless, benefit from the planning, guidance and tuition of a tutorial organisation' 

It was Keegan (1986) who has attempted to make a synthesis of most of the definitions of distance education. He finds that distance education has the following important characteristics. First, the quasi-permanent separation of teacher and learner throughout the length of the learning process. Secondly, the influence of an educational organization, both in planning and preparation of learning materials and in the provision of student support services. Thirdly, the use of technical media, print media, video media or computer, to unite teacher and learner and carry the content of the cause. Fourthly, the provision of two-way communication so that the student may benefit from even initiate a dialogue and finally, the quasi-permanent absence of a learning group throughout the length of the learning process so that people are usually taught as individuals and not in groups, with the possibility of occasional meeting for both didactic and socialization purpose. In addition, he finds
that there are two other socio-cultural determinants which are necessary pre-conditions and necessary consequences of distance education, viz (a) the presence of more industrialized features than in conventional oral education, and b) privatization of institutional learning. Distance education, thus represents distance teaching plus distance learning. One must also recognize that the concept of distance education is basically a democratic idea (IGNOU, STRIDE)

**Why Distance education**

As Sharma(1986)\(^{10}\) has pointed out, Distance education is being called up on to meet some of the felt-needs in several countries all over the world. The nature of felt-needs differs from country to country, depending upon the stage of its development, but the need for Distance education is being recognized both in developed and developing countries for a variety of reasons. For instance, in all countries, it is felt that equality of opportunities for education should be provided, and that there should be greater access to higher education (Selim, 1986).\(^{11}\) Those who have missed educational opportunities earlier should have a second chance. Moreover, there is a need to provide continuing education to meet the changing requirements of people working in various walks of life. In view of the changed circumstances, there is a need for providing life long educational opportunities for working people and housewives.
These two requirements exist in all countries. In developing countries, there is a need to meet the shortages of technical manpower. It is also realized that education should be made relevant to the needs of the country. Further, the quality of education has to be improved. In view of certain limitations of the form of education, it is increasingly realized that distance education can meet some of the educational needs in all the countries, irrespective of their ideologies or stages of development. (Ram Reddy, 1988) 

The Genesis of Distance education

A few words about the genesis and development of distance education will be highly contextual. It is a fact that distance education was born out of pressing social compulsions, dynamics of change and new cultures. If we trace the genesis of distance education, we will find that the earlier forms of this innovative system of teaching/learning were the instructive letters in the Old Testament and some other works in early Greek-Roman history. The general belief, however, has been that the modern history of correspondence instruction began in 1840 with Isaac Pitman’s shorthand course for distance students through the Penny Post, when Uniform Penny Postage was introduced in the U.K. Nevertheless, some researchers have traced the forerunners of the distance education of today to 1833 when a private teacher of English taught composition by
post, providing two-way communication, which is the predominant characteristic of Distance education. In 1856, a School of Modern Languages established by Longenscheidt and Toussaint started teaching foreign languages through correspondence.

In the U.S.A, the first efforts to organize correspondence instruction were made in 1873. Later on, the idea of a land grant college with a campus extending to the State boundaries resulted in the establishment of correspondence course in some universities in 1890. Although correspondence education played only a limited role in the formal secondary system, colleges and universities, it has been more expensive in the U.S.A than in any other country. In Europe, pioneering work was alone done in Germany and Sweden in 1890 with then establishment of Fern Lehrinstitute in Berlin and Hermods in Sweden. With the onset of the 20th century, a number of correspondence instruction schools were set up throughout Europe.

In Russia, correspondence Study became the main form of university level studies by early 1960s-more students studied through correspondence course than through the regular classroom instruction in colleges and universities. In Japan, over a million students are studying through correspondence courses. In Australia and New Zealand, correspondence instruction came to be used in the compulsory school system to teach children who had never been to a classroom. In England,
a number of private correspondence colleges were set up to coach students for various school and university examination.

The establishment of some international forums for distance education promoted the widespread acceptance of correspondence courses. One such organization is the International Council for Distance Education (ICDE). The credit for establishing the international council for correspondence Education (Later renamed as ICDEin 1938) in 1938, goes to Mr. J.W. Gibson who was for many years the Director of High School Correspondence Instruction at Victoria British Columbia and in Canada. The international council is officially affiliated to UNESCO with category 'A'. International non-governmental relations and co-operates closely with the United Nations. Acting as a co-ordinating body, the ICDE strives to promote knowledge of and improvement in, open/distance education throughout the world. ICDE provides for its member institutions consultancies and advices at reduced costs. Further, it offers opportunities for building strategic alliances as a global broker for finalizing the programmes of member institutions.

ICDE has established various 'interest groups'. One such group is called the ICDE Women's International Network. Which offers opportunities to meet and deliberate on special issues. Moreover, ICDE has close working relations with a number of associations of open/distance education. Some of them are European distance education
Network(EDEN). Association of Asian Open Universities (AAOU), National University Continuing Education Association (NUCEA), U.S.A, Open and Distance Learning Association of Australia (ODLAA): distance education Association of Southern Africa (DEASA): West African Association of Distance Education (WAADE): Canadian Association for Distance education (CADE): United States Distance Learning Council (USDLC): Latin American Network for Development in Distance education (REDLEAD): Norwegian Association for Distance Education (NADE) Distance education Association of New Zealand (DEANZ) etc. ICDE has its permanent international headquarters in Gjerdrums, Norway.

Commonwealth Of Learning (COL)

The Commonwealth Of Learning (COL) belongs to a new generation of international organizations, occupies a unique place among international agencies, dedicated to cooperation in the field of education. Established in 1988, by the Commonwealth Heads of Governments to promote the use of distance education in the service of Human Resource Development in member countries, it can claim to be the first intergovernmental institution with a specific mandate to mobilize the vast potential of Open and Distance Learning to the needs of the Educational endeavor. The memorandum of understanding (MOU), signed by the Heads of Government, comprehensively articulates the scope and purpose
of the organization. The purpose of the agency is to create and widen access to opportunities for learning, by promoting cooperation between universities, colleges and other educational institutions throughout the commonwealth, making use of the potential offered by distance education and by the application of communication technologies to education. The agency's activities aim to strengthen member countries' capacities to develop a human resource required for their economic and social development, and will give priority to those developmental needs to which commonwealth cooperation can be applied. It is this interface of Open Learning with technology that provides COL with its twin purposes; (1) widening access to education by making use of distance education, and (2) the application of communication technologies to education. For the realization of these purposes, the organization articulated appropriate strategic objectives.

As a commonwealth organization, its jurisdiction extends to all parts of the commonwealth. But the four major developing regions; African, Asian, Caribbean and South East Asia-Pacific, are identified as principal theatres of COL's activity. The developed countries of the commonwealth, like Australia, Britain and Canada are involved mostly as providers of funding and expertise. In the sector of communications technologies, the organization's tasks are directed towards advising on appropriate technologies for different contexts; model building in
techniques of developing electronic media materials and plain the general advocacy role. On the issue of course materials, in the initial years there was the need to transfer materials developed by one institution to another and COL plays the facilitator's role both in acquiring such materials and in devising the necessary copyright and licensive modalities. Alongside this practice, the strategy of strengthening the capability of individual institutions to develop their own course material is pursued through funding consultancy services and workshops in countries and regions. The task of training distance education personnel constitutes a good part of its programmes.

The promotion of distance education component in the conventional universities, thus consolidating the dual mode capabilities of institutions, goes hand in hand with extending support to exclusively distance mode agencies like open universities. Not only are its efforts directed towards evolving alternative policies in its advocacy role for open learning, it also partakes the character of an executive and implementing agency in so far as it helps client institutions evolve policy agenda and also undertakes follow-up activities.
Global Perspective of Distance education

It may be interesting to examine the regional profile of the distance education. The regions are arranged in the alphabetical order of their names.

AFRICA

In most of the countries in the African region, the educational level of a majority of the people continues to be relatively low. A majority of the school children were either under trained or untrained. Considering the necessity of training, the in-service teachers and the future need of employing large numbers of properly trained teachers to cope with the programmes of expanding the educational facilities, a number of countries like Nigeria, Tanzania, Kenya, Botswana, Lesotho, Guyana, Ethiopia and Ghana organized distance education courses for the training of teachers.

The first correspondence college in Africa was setup at Brazzaville in 1962. At present, there are over 122 institutes using the distance education system. Later, Distance Education Institutions were established in Botswana, Lesotho and Swaziland. Those institutions have set a fine example for collaboration in developing distance education courses to cater to the educational needs of the people in the three countries. Similarly, the Distance education programme of the Namibian Extension unit, a non-profit educational institution catering mainly for the
educational needs of the South-West Africa Peoples' organisaton (SWAPO of Namibia). The educational resources center for refugees from South Africa and Zimbabwe adopted the distance teaching methodology in 1981 for preparing refugees for the government examinations.

In July 1983, Nigeria established a National Open University attracting 24000 applicants for admission, but, unfortunately, it was suspended by the military regime, on may 8th, 1984. However, the correspondence and Open Studies Institute (COSI) established during the 1973-74 in the university of Lagos, Nigeria is playing a vital role in spreading distance education owing to the increasing number of refugees from Ethiopia and other countries who arrived in the Eastern Region of Sudan, the Sudan Open Learning University was established in 1984. The unit was created through the help of the International Extension College, U.K. Zimbabwe, got into distance education in a big way by establishing the Zimbabwe Distance Education College in 1980.

The establishment of the University of South Africa (UNISA) was another milestone in the history of distance education in South Africa. In January 1946 UNISA started to provide distance education programmes to off campus students. It offers educational opportunities in diploma, degree ranging from undergraduate to doctorate level. For admission to undergraduate programmes, the candidates must hold
Asia

The premium of giving proper training to the in-service teachers as well as the prospective teachers is a problem not only of the African Countries. It is in fact a universal problem and Asia is no exception. Most of the countries in Asian region have adopted the latest innovations of distance education and established open universities. In this context, it is useful to discuss the distance education scenario of some of the Asian countries.

Bangladesh

To meet the emerging educational needs, the government of Bangladesh established the Bangladesh Institute of Distance Education (BIDE) under the Ministry of Education. The Institute was intended to serve as a new nucleus for an open university. Recently, the government has established the Bangladesh Open University (BOU) to which Bangladesh Institute of Distance Education (BIDE) was merged. BOU will provide not only higher education, but will also cover other educational and training needs for human resources development. The primary objectives of BOU is “to expand all levels of education, knowledge and society by a diversity of means, including the use of communication technology” (BOU Act, 1992)
China

Increasing Population, the necessity to expand the theoretical background of people, upgrade the national skills of workers and broaden the awareness of each Chinese on the Cultural Revolutions necessitated the establishment of correspondence education in China in dual mode universities. During 1960s, T.V Universities were set up in Beijing, Shanghai, Shenyang and some other cities in order to provide a convenient means of adult education. The socialist modernization project, which demanded extensive education facilities for the people, led to the establishment of the Central Radio and Television University (CRTUV) in Beijing in 1978 which is at present one of the largest distance education institutes in the world with nearly two million students on its rolls. There are 43 provincial Radio and Television universities, 595 Branch Schools and 1500 work Stations which offer distance education programmes nationwide, mainly through Radio and Television.

In Shangai, there is a television University, the Shanghai Television University. It is an institution of adult higher education under Shanghai Municipality and is also one of the earliest radio and television universities in China. It was jointly founded on April 6th, 1960 by East China Normal University, Fudan University, East China Chemical Engineering Institute and few other universities in Shanghai. STVU has been offering courses in Science and Engineering, liberal arts, medicine, agriculture and economic
management etc. at the undergraduate and sub undergraduate levels.
The National Open University established in August 1st, 1986 began
telecasting and broadcasting courses in November 1st, 1986.

**Indonesia**

Despite considerable expansion in formal educational system,
Indonesia could not cope with the explosive increase in the demand for
tertiary education by the high school graduates. To meet this need,
universities Terbuka (UT), the 45th State University in Indonesia, was
established in 1984 as a distance teaching institution. Apart from the self-
instructional learning materials, the university provides tutorials and
general lectures on radio and television, for which the satellite facilities
are used. The U.T is not only responsible for expanding educational
opportunities but it has also the responsibility to strengthen the
government's commitments to improve the quality of education and to
make education more relevant to the national development needs. The
president of the Republic of Indonesia in his inaugural address at the U.T
stated: "due to the wide and scattered archipelago, U.T is an appropriate
response to the need of increasing equality of opportunity to higher
education.

**Japan**

The University level correspondence courses in Japan, more often
them not, are regular courses within the framework of conventional
universities and they form part of the parent faculties. However, the operation of correspondence courses is carried out by the Correspondence Education Division. The business sector and industries used correspondence education to re-educate the employees, training and retraining of teachers, etc. In 1978, the National Centre for Development of Broadcast Education was established as a cooperative organization of national universities under the direct control of the ministry of education. This was a planned step towards the establishment of the university of the Air of Japan (UAJ), Japan’s first independent single-mode distance education institution in 1985.

Republic of Korea

Correspondence education in Korea began in the form of non-credit and non-degree correspondence courses around the year 1930. Later on, when conventional universities could not accommodate the ever-growing numbers of university aspirants, the Seoul National University established a Department of Correspondence Courses in 1972, offering junior college level courses. In 1982, the department was elevated to the status of and independent university—the Korea Air and Correspondence University. This is presently known as the Korea National Open University. The estimated annual intake is over 70,000 students.
Malaysia

In Malaysia, the university Sains Malaysia established in 1971 at Penang took the initiative of organizing off-campus academic programmes to provide opportunities for university education to adults and also to cope with the increasing demands for higher education. There are also some private correspondence course institutes which offer various school level, commercial and vocational courses. Stanford college Group has in particular been very active in catering to the needs of people for such causes in Singapore and Malaysia.

Pakistan

In its search for new systems to widen the access to education for different sections of the society, the government of Pakistan found distance education an innovative and highly useful system to supplement the formal education system. Distance education, as such, is not totally new to the country. In its earlier forms of external studies and correspondence education, distance education existed in the country, but its scope, objectives and methodology were narrow and limited. Distance education through the open university system was thought to be the most appropriate system to meet to a great extent, the demand for a wider educational opportunities. In pursuance of the provisions of the Educational Policy (1972-80) the national assembly passed the enabling act in May 1974, and the Allama Iqbal Open University( then named
People's Open University came into existence in June 1974. The university operates through, besides the headquarters, 30 regional centers and 425 study centers/make shift centers. The AIOU is claimed to be the only open institution in the region which has a complete structure of distance education, starting from literacy programmes to higher education and research programmes.

The Philippines

Distance education system was launched in the Philippines in 1976 to reach 3,50,000 teachers spread over 7,100 islands in the archipelago. A special feature of distance education in the Philippines is that curriculum materials are generally initiated by the 'consumers' and then revised and edited by experts. Courses are developed according to their relevance to social needs and are generally application oriented. The requisite number of credits earned by doing the course leads to the award of a degree. No learner in the distance education system in the Philippines fails, as it is a self-placed learning system in which the learner receives final rating after the completion of the package of self-learning modules.

Sri Lanka

Apart from the need for expansion of educational facilities for those who were unable to go to the conventional universities, Sri Lanka faced a major problem of training a large number of teachers. To meet this demand the Government set up three special institutions during the
seventies- External Service Agency (ESA) to take over the extension programmes of the universities, the Institute of workers' education to extend opportunities for university education beyond the normal undergraduate category and the Sri Lanka Institute of Distance Education (SLIDE) to take over the Extension services. Programmes of the Ceylon Technical College. The open university of Sri Lanka (OUSL) was established in 1980 through the amalgamation of the ESA and SLIDE. It was the same legal and academic status as the other universities in Sri Lanka. It prepares its own courses and offers degrees, diplomas and certificates. The university's main campus is located on a 40-acre site at Nawala, about two miles Southeast from center of Colombo.

Thailand

Among the institutions which Thailand can take legitimate pride in is the Sukkothai Thammathirat Open University (STOU). It was established as a single mode distance education university by Royal Charter on 5 September 1978. It was established as a national university under the Ministry of University Affairs in response to individual and societal needs. The university is situated on a 54-acre site in Nonthaburi Province 18 Kilometers north of Bangkok. The university provides three kinds of courses- Bachelors Degree courses and Basic Rural Development courses. The estimated annual intake is 70,000 to 80,000 students. There
are 10 certificate programmes and 20 bachelor Degree programmes. The total number of courses is 448.

AUSTRALIA AND THE SOUTH PACIFIC REGION

Australia

With a small population scattered widely over vast areas, distance education proved a boon in meeting the individual educational needs of the Australian Community. Distance education courses had been started at all levels during the first decade of the twentieth century. Australia also has an active regional association of distance education called the Australian South Pacific External Studies Association (ASPESA) to have a vigil over the functioning of various distance education centers. This Association is now known as Open and Distance Learning Association of Australia. Some of the well-known universities/institutes providing Distance education in Australia are Deakin, New England, Murdoch Queensland, The Royal Melbourne Institute of Technology and Gippsland Institute of Advanced Education.

New Zealand

New Zealand is known for a well-developed system of Distance education providing education at all levels. A noteworthy feature of distance education in this country is that most of the institutes work in collaboration and avoid aggressive competition. The New Zealand
Technical Correspondence Institute, the largest distance education institute in the Australian Region offers a wide range of technical and vocational education at a distance. In addition, the New Zealand correspondence school has been serving the needs of students in remote areas through packaged correspondence lessons, school broadcasts and television programmes.

In New Zealand, distance education was first introduced when the New Zealand correspondence School (NZCS) was established in 1922. Also the center for university Extramural Studies at the Massery University, the open polytechnic and the university of Otago provide Distance education programmes.

Papua New Guinea

In 1974, a Department of Extension Studies was established in the university of Papua New Guinea. Along with the college of External Studies in Port Moresby, it has instituted varied distance education courses to meet the educational demands of the people. The Department of External Studies is based in the Education Faculty at Waigant Campus, Which is the main campus of the university. In addition, there are eleven university extension centers.
EUROPE

Europe has seen rapid strides in the development of Distance education during the last few decades of the 20th century. The status of distance education in some of the European countries is discussed here.

England

The establishment of the open University at Milton Keynes in England in 1969 turned out to be significant milestone in the development of distance education. The open university was established by Royal Charter in 1969 as an independent and autonomous institution authorized to confer its own degrees. The university aims to provide a second chance to adults, who have not received higher education and fuller professional training and qualification for those who prefer to study while continuing to work and to contribute substantially to continuing education in the U.K. The university is located on a 70-acre site in Milton Keynes, Buckinghamshire and has offices in 13 regions covering the whole country.

International Extension College (IET) Cambridge, is another well-known distance education institution which in addition to offering distance education courses provides consultancy and expertise to some developing countries particularly in Africa, for organizing distance education institutions.
Besides, there are a large number of private correspondence institutions in England, preparing external students for various public school /university examinations, and offer a variety of correspondence courses. The council for the accreditation of correspondence colleges looks after the maintenance of standards by these institutions which account for more than 5 million students.

France

In France, university teaching at a distance was originally designed for initial training to upgrade teachers, but, the scope was widened in due course of time. By 1986, eighteen formal universities were renamed as Radio Universities. The center de Tele Ensiegnment Universitaire provides university level courses have 2,3 and 4 year duration. The center National d'Ensiegnment a Distance (CNED) is a state institution under the authority of the Ministry of Education. The CNED comprises eight different centers in France. It offers opportunities of Distance Higher Education programmes, single courses and foundation courses at all levels in France and abroad.

Germany

Considering the increasing demands for people, the state and federal governments in Germany realised the need for their involvements in the development of Distance education. This resulted in the establishment of the German Institute of Distance Education (Deutsches
Institute für Fernstudien, DIFF) at Tubingen, in 1965. It is an institute for research and development in the field of continuing education.

In the wake of pressures from students seeking admissions to institutions of higher learning and the international trends in distance education, the State of North Rhine Westfalia took the initiative of establishing a distance teaching university, the Fern Universitat, at Hagen in November 1974. It offers degree and other courses to over 20,000 German-speaking students.

Italy

In Italy, the consorzio per I Universita a Distanza (CUD) was established in 1984 with the purpose of providing a distance university system for Italy. It is a consortium established under the Italian law. Members include universities, multinational companies and government-related organizations. The headquarters of the consortium is in Rende, Cosenza, in the South of Italy, and there is also an office in Rome.

The Netherlands

To meet the increasing need for higher education, the Dutch Government took a policy decision in 1971 to make flexible and diversified higher education available to the people. This ultimately led to the setting up of the Netherlands Open University which became functional in September 1984 with a network of 18 study units. The European Association of Distance Teaching Universities (EADTU) was established
on 23rd January 1987 by the principals of Europe’s major distance teaching institutions to foster co-operation between education through distance teaching methodology. The mission of EADTU is to promote and support the creation of a European network for higher-level distance education teaching to the development of the European Open University Network.

**Norway**

Correspondence education in Norway is provided by non-public correspondence schools. The government passed a law on correspondence education in 1948 to regulate correspondence education throughout the country. This resulted in setting up a government body, the council for correspondence education, to advice the government on matters concerning correspondence education which is financed by the State. The correspondence schools in 1967. This association, which has been playing a very effective role in the development of Distance education in Norway, decided in 1985 to change its name to Norwegian Association of Distance Education (NADE). The university of Oslo offers 18 courses through which the distance education mode. Through founded in 1811, its activity in the fields of distance education started very recently.

**Russia**

Distance education in the erstwhile USSR was born out of the necessity to train thousands of volunteers. Through distance education,
illiteracy was completely eradicated within two decades. Correspondence courses in the then U.S.S.R are organized on an All Union basis, in so far as syllabus and course materials are concerned. The universities or polytechniques follow the national syllabus and the course materials is produced and distributed by the ministry of education. The universities/institutions in different republics get the course materials translated and may supplement the basic course materials according to local needs. There are over 500 correspondence faculties or departments attached to various institutions throughout them U.S.S.R. Correspondence students are required to take a year more than the formal channel students to complete a course of study.

The Russia Open University (ROU) founded in October 1990, is both a scientific and an educational organization established by the union of Soviet Teacher Innovators, the Academy of Sciences of the erstwhile USSR and the Soviet Culture Foundation. The mission of the university is to carry out research, design projects and to implement achievements. The primary purpose of ROU is to provide access to higher education to all those students who are admitted to and excelled in the appropriate secondary schools. ROU provides access to education for people for all ages who may wish to learn for any reason.
Spain

In Spain, Distance education received a big boost with the establishment of the Universidad Nacional De Educación a Distancia (UNED) in 1972. The specific aim of the university is to widen access to higher education for the disadvantaged social groups. The university offers three academic programmes, viz., admission courses, degree courses and in service training courses. It also provides facilities for research studies. The university has set up an educational science institute for carrying out institutional research concerning its educational systems.

Sweden

The history of Distance education in Sweden goes back to 1898 when H.S Hermods started a correspondence school. Being encouraged by the success of Hermods, a number of other schools came into existence, notably Brevskolan. A correspondence school of the Swedish National Defence was also setup. By 1966, with the merger of Norsk Korrespondenceshok Industright (NKI), Hermods became the largest teaching institution of the world with the yearly enrolment of nearly 1,50,000 students. Later on, Hermods was integrated into the State - owned Liber Group of companies and came to be called Liber Hermods.

Swedish Universities started distance education programmes for university level courses in 1968 as a supplementary form of study like the
evening classes and local external courses. As in Australia, the university
departments look after the non-campus as well as the distance education
courses. The Swedish Association for Distance education (SADE) was
founded in 1984. Distance education is an integrated, departmental
activity mainly carried out on a small scale in a dual-mode structure.

Distance education at post secondary level is now well established
in Sweden. Post secondary distance education is characterised by a
highly decentralized system of Institutional structures, production and
delivery systems vary from university to university. Each department
engaged in distance education is independently responsible for the course
programme and for media and methods used. There is no central control
of distance education and nor does the individual university impose any
restrictions on the liberty of the individual department to organize its
distance teaching. Distance teaching forms an integral part of
departmental activities and as such a 'Distance teacher' usually has
'conventional teaching' duties as well.

MIDDLE EAST

The impact of Distance education can be seen in the Middle East
countries like Jordan, Iran and Israel. Jordan set up an open university
named Al-Quds Open University in Amman. Payame Noor University (PNU)
was founded in Iran in 1987 to challenge the staff shortage of schools and
the pressure of numbers at the tertiary level. The university operates
throughout the country and maintains 72 active study centers. Israel set up an open university of Israel in 1974 to provide pre-academic, vocational, and adult education courses. The university has an enrolment of approximately 20,000 students. There are some 80 study centers throughout Israel and 650 tutors involved in the delivery of courses.

**North America**

North America has a fairly large network of Distance education offering school and university level courses and also a wide variety of continuing education and non-credit centers. A brief commentary on the system of Distance education in North America is given here.

**Canada**

Canada is one of the important regions in North America as far as distance education is concerned. The Athabasca university, conceived in 1970, at Edmonton, marked a significant development in the field of distance education in Canada. In 1978, Athabasca University was formally established under universities Act to provide higher education opportunities to adults who were deprived of this privilege at the conventional universities. The university is partly modeled after the UKOU. Housed at Athabasca Village, it offers four kinds of Distance education programmes, viz, degree programmes, transfer programmes, non – programme studies and visiting student programmes. The university has brought out a quarterly Research in Distance education. Instruction is
imparted through home study courses, television programmes, seminar-supported tele-conference and reading courses.

Canada has more over, a number of correspondence schools which were set up mostly on account of shortage of teachers. One of the well-known schools of such category is the Alberta Correspondence school which was established in 1923. In June 1983, the Canadian Association for Distance Education (CADE) was formed. CADE brings out a biannual international journal called Journal of Distance Education since 1986.

**United States Of America (USA)**

American distance education programmes are known for their great diversity in respect of size, educational approach and administrative procedures. Though the rate of distance education in the U.S.A is limited one, it is more extensive than in most of the other countries. The largest user of distance education is the U.S federal government, especially the Armed Forces. The united States Armed Forces Institute (USAFI) is a unique education organization offering an extensive array of correspondence courses to enable the armed forces to acquire secondary and post secondary occupational and traditional education.

The area in which distance education plays an important role in the U.S.A is adult and continuing education. The fast growth of knowledge, particularly in the professional fields led to popularization of the concept of continuing or life long education. The induction of highly sophisticated
machines which resulted in greater leisure to the working population also contributed to this popularity, because the working people wanted to utilize their leisure hours to enrich their knowledge and skills or to acquire new skills for improving their career prospects. This obviously led to the remarkable development of distance education in the U.S.A.

The extension departments of the universities and independent study institutes provide a wide range of vocational, technical, and oriented-oriented courses, besides, continuing education courses to keep up to date in their profession. The universities also have started providing distance education. The following universities have well known correspondence institutions/ directorates/departments. Bringham Young University, University of Missouri, University of Nebraska, Indiana University, Pennsylvania State University, University of Minnesota and University of California. The American Journal of Distance Education is being brought out from the Pennsylvania State University.

The Institution of correspondence courses for the visually handicapped at Hadley School for the Blind in Winnetka, Illinois, indeed is a laudable feature of distance education in the U.S.A. Almost all independent study programmes in the U.S.A are wholly or largely self-supporting. There are two well-known national level associations/organizations in the U.S.A which are devoted to the development, collaboration accreditation and maintenance of students of
distance education programmes. These are (a) National Home Study Council (NHSC) based in Washington and recognized by the Federal Government and (b) National University continuing Education Association (NUCEA), Washington.

SOUTH AND CENTRAL AMERICA

Among the countries which have made good progress in Distance education in the Central and South American Region are Costa Rica, Venezuela, Argentina and Brazil. Here, an attempt is made to examine the Distance education developments in the first two centers only.

Costa Rica

Distance education in Costa Rica has been taken a leap forward with the establishment of Universidad Estatal a Distancia (UNED) in 1977. The University has developed a series of professionally oriented diploma and degree programmes. The university also launched some extension courses. The annual enrolment is approximately 7000. Since 1980, the university HIV/AIDS been collaborating with the Ministry of Public Education in developing course materials and training tutors for the Ministry. Thus, in addition to the headway made towards the provision of higher education, it was hoped that the university would fulfill two other functions. It should make higher education accessible both to those who could not take advantage of traditional course, and to the agricultural and working population.
Venezuela

Venezuela has taken distance education in a big way to meet the educational needs of her people. In pursuance of this, the government of Venezuela decided to establish a distance teaching university in 1975, and appointed a planning committee for the proposed Universidad Nacional Abierta (UNA). The university was established in 1977 with the twin objectives of training professionals in areas which are the priorities for national development and offering educational opportunities to those who have been able to attend traditional higher education institutions.

There is one national center in Caracas and 20 regional centers are set up throughout the country. A center for excellence in distance education has been set up at UNA. It offers mostly formal academic programmes. But prior to admissions into those programmes, the students are required to pass introductory courses which aim at orienting them to the practice of learning at a distance. After completing the introductory courses, the students can go in for their degree programmes which comprise general studies followed by professional studies.

From the above discussion, it is clear that Distance education has been globally accepted as a major strategy for meeting the requirements of the unreached and marginalized. It may be useful to examine the profile of some of the mega open universities which has played an important role in the educational history of many countries. There are ten
open universities which have been categorized as mega open universities of the world in the seventeenth World Conference of the ICDE (1999) in Birmingham, U.K. Mega open universities are those institutions which have a student enrolment over 1,00,000.

The origin of Distance Education in India and Kerala has been examined elaborately in chapter one and a repetition is quite irrelevant. The establishment of IGNOU is really a mile stone in the history of distance education in India.

**IGNOU – The Path breaking innovation**

The establishment Indira Gandhi National Open University (IGNOU) in 1985, was really a path breaking innovation in distance education in India. The very purpose of establishing IGNOU, according to the concerned act 50, 1985 of the Parliament was the introduction and promotion of Open University and distance education systems in the educational pattern of the country and for co-ordination and determination of standards in such systems.

The major objectives of IGNOU, as specified in the Act 50, are to

1. advance and disseminate learning and knowledge by a diversity of means, including the use of any communication technology, to provide opportunities for Higher Education to a large segment of the population
2. to promote the educational well being of the community generally,

3. to encourage the Open University and Distance education systems.

The University endeavors through education, research, training and extension to play a positive role in the development of the country, and based on the rich heritage of the country, to promote and advance the culture of the people of India and its human resources. Towards this end, the University shall (a) strengthen and diversify the degree, certificate and diploma courses related to the needs of employment and necessary for building the economy of the country on the basis of its natural resources; (b) Provide access to Higher Education for large segments of the population, and in particular, the disadvantaged groups such as those living in remote and rural areas including working people, housewives and other adults who wish to upgrade or acquire knowledge through studies in various fields; (c) Promote acquisition of knowledge in a rapidly developing and changing society and to continually offer opportunities for upgrading knowledge, training and skills in the context of innovations, research and discovery in all fields of human endeavors; (d) Provide an innovative system of university level education, flexible and open, in regard to methods and pacing of learning, combination of courses,
eligibility for enrolment, age of entry, conduct of examination and operation of programmes with a view to promote learning and encourage excellence in new fields of knowledge; (e)Contribute to the improvement of the educational system in India by providing a non-formal channel complementary to the formal system and encouraging transfer of credits and exchange of teaching staff by making wide use of texts and other software developed by the University; (f)Provide education and training in various arts, crafts and skills of the country, raising their quality and improving their availability to the people; (g)Provide or arrange training of teachers required for such activities or institutions; Provide Post-Graduate courses of study and research(h)Provide suitable post-graduate courses of study and promote research; (i)Provide the counseling and guidance to its students; and(j)Promote national integration and the integrated development of the human personality through its policies and programmes.

The University strives to fulfill the above objects by a diversity of means of Distance and Continuing Education. It function in cooperation with the existing Universities and institutions of higher learning and make full use of the scientific knowledge and new educational technology to offer a high quality of education, which matches contemporary needs.
The challenging mandate given to the University has provided the framework for the University's endeavors in fine-tuning curriculum design and development to meet societal needs. The spectrum of courses offers a range from awareness building and knowledge-based programmes to technical, occasional and professional development programmes. It is offering 62 academic programs (2000) ranging from certificate to Doctor of Philosophy. The University in priority areas such as agriculture, natural resource management, occasional and skill training, awareness programmes and specific projects have initiated extension activities in literacy, development communication and training of rural youth. Agro-based training programmes have been initiated in mushroom cultivation and poultry farming. Modules have also been prepared for promoting parental awareness of the primary education programme. To serve the needs of the disabled the University collaborates with the Rehabilitation Council of India to design and develop special education and rehabilitation programmes through the multimedia distance mode.

As a step towards reaching the un reached and towards women's empowerment, the university collaborate with the Department of Women and Child Development and launched the certificate programme in empowering women through self-help groups. Other leading projects are participatory management of displacement,
resettlement and rehabilitation, HIV family education and social welfare, programme in youth development work. The University has signed Memorandum of Understanding (MOU) with Maruti Udyog for setting up Vidyavahini and with Army, Navy and Air Force to promote single window operations, for learners from the defence services.

As systems leader in Open and Distance Learning, the University spearheads research-based innovations. Three types of systemic research have been conceived in Open and distance learning: theoretical, developmental and evaluation based for faculty development, institutional growth and quality assurance respectively. Research degree programmes, research grants schemes, research fellowships, associate ship scheme and research publication scheme are the research plans in IGNOU.

**Apex Body**

The University has a unique distinction of combining the conventional role of a University with that of being the apex body in the promotion, coordination and maintenance of standards in distance education. The University has established the Distance education Council (DEC) to promote initiatives for the coordinated development of distance education in the country. In essence, the University performs its role as an apex body by adopting the approach of leading by example and regulations by guidance. In fulfillment of its mandate for maintenance of standards, DEC has collaborated with National Assessment and
Accreditation Council (NAAC) in the assessment and accreditation of open universities and other distance education institutions. DEC has also entered into MOUs with other apex body, like All India Council for Technical Education (AICTE), in pursuit of excellence in technical and management education through the distance mode. In order to encourage development initiatives, DEC provide financial support to state open universities. It also provide support to Correspondence Course Institutes (CCIs) of conventional Universities for the transformation of existing course materials into self-instructional materials, students support services, staff training and development, quality assurance measures and use of electronic media. The key initiatives of DEC cover vital areas such as staff development and training, work norms, personnel policies, improvement in course, cost-effectiveness of open learning systems and framing guidelines for offering specific professional programmes. As part of its resources sharing initiative, the self-instructional study material prepared by the University has been made available to State Open Universities and Correspondence Course Institutes and other educational institutions.

The University has strengthen extending its programmes and courses to the nationals of other developing countries as well as to the large number of expatriate and non-resident Indians living in these countries. Besides the Gulf countries – Dubai, Abu Dhabi, Sharjah, AL Ain,
Doha, Muscat and Kuwait – where academic programmes are on offer since 1997, the University is offering its programmes in the Indian Ocean Islands – Mauritius, Maldives and Seychelles. In Seychelles and Maldives, besides the Bachelors Preparatory Programme (BPP) and Bachelors Degree Programme (BDP) programmes, the B.Sc. Nursing programme is offered to ensure that the majority of diploma holders in these island nations become graduates in nursing. Agreements have been signed with Hanoi Open University, Vietnam and University of Distance education, Myanmar for offering academic programmes in the respective countries. The Postgraduate Diploma in Distance education (PGDDE) and the Master of Arts in Distance education (MADE) were developed by Staff Training and Research in Distance education (STRIDE) and these programmes are on offer in India and abroad. Students from the Commonwealth countries of Asia, Africa, South Pacific and the West Indies have been admitted to the programmes under the Rajiv Gandhi Fellowship Scheme jointly launched, with Commonwealth of Learning (COL) and Rajiv Gandhi Foundation (RGF).

The Inter-University Staff Exchange Scheme in Distance education, institute for offering Visiting Fellowships to academics and other categories of staff working in Open Universities in Asia is being initiated. Under this scheme academics from Iran, Bangladesh and Hong Kong have been chosen to work on small projects.
Technology Support

Technology-enhanced learning has a critical role in distance education. The technology media can effectively transcend the barriers of time and space between teacher and learner. Using the technological tools to build interactivity into the learning process is undoubtedly a critical input in facilitating learner retention. The University uses a range of media to enrich the learning experience and foster interactivity. The Electronic Media Production Centre (EMPC), established in collaboration with Japan International Cooperation Agency (JICA), Government of Japan, is entrusted with the task of production of audio/video materials. This sophisticated complex is equipped with state-of-the-art production facilities: digital audio studios, large video studios, Beta cam SP edit suites, audio editing suites, a large duplication plant, and graphics facilities. These facilities are available for use by other educational institutions and State Open Universities.

A unique TV cooperative, and dedicated Educational Channel by name ‘Gyan Darshan’ has been launched in collaboration with Ministry of Human Resources Development (MHRD), Ministry of Information and Broadcasting, National Council for Educational Research and Training (NCERT), University Grants Commission (UGC) and other organizations. In a significant gesture, EMPC has been identified as the coordinating and transmitting agency. The 24-hour Gyan Darshan channel telecasts
educational programmes from school level to tertiary level through different cable operators in the country for wider outreach.

Technical arrangements for Gyan Darshan were created. The Earth Station was set up with a 7.2 m antenna with arrangements for the play of pre-taped programmes from the Earth Room station itself while others can be viewed from Video Studio. Microwave links to enable live relay of the channel from EMPC to Doordarshan Kendra, Delhi and to source programmes from the Central Institute of Educational Technology studios have been installed. One + one non-linear editing, additional Beta cam VCRs, logo generator to augment the existing system are being procured. EMPC will be the nodal agency for implementing the Gyan Vani project.

The University is in the process of setting up one FM Channel in 40 cities in India for education and development. The stations are operated in a decentralized manner with the help of the State Open Universities, Directorates of Correspondence Education, and State Directorates of Education. The Ministry of Human Resource Development (MHRD) is financially supporting the project during the initial stages but these stations are expected to become viable over a period of five years. In order to promote interactivity between learners and resource persons, one-way video and two-way audio teleconferencing system has been under operation through the Training and Development Communication Channel (TDCC) of ISRO and GYAN Darshan. Teleconferencing sessions
are organized for different Schools of the University and outside institutions and organizations.

Interactive Radio Counseling is a recent concept in distance learning in India. Careful attention has been given to fostering interaction between learners and their counselors, resource persons and experts through phone-in counseling. Interactive radio counseling sessions are being broadcasted for one hour on every Sunday from 4.00 p.m to 5.00 p.m from 184 radio stations all over country.

**Virtual Campus Initiative**

The Virtual Campus Initiative of the School of Computer and Information Sciences, promotes the use of satellite-based interactive session supported by CD-ROM and Internet. Through the Virtual Campus Initiative, the University has taken the first step for providing a purely digital learning environment- Internet and web based- for its two new programmes viz Advanced Diploma in Information Technology (ADIT) and Bachelor in Information Technology (BIT). It is being envisaged that evaluation for these two programmes would be conducted exclusively through digital means. In order to meet the goal of the complete Virtual Campus under the Virtual Campus Initiative, the University entered into an agreement with EdExcel Foundation, one of the leading innovative agencies in education and training in U.K. EdExcel Foundation incorporates Business and Technology Council (BTEC), the top provider of
applied and vocational qualifications, and London Examinations, one of the major examining boards in the U.K. Under this agreement, the University is gaining from their expertise, but substantially adding to its resource base.

The University is in the process of developing state-of-the-art computing and communication facilities at its Regional Centres to serve as Tele-Learning Centres (TLCs). These TLCs provide a total digital learning environment of ADIT/BIT students. The University has also entered into an agreement with 12 private entrepreneurs for providing additional Tele-Learning Centres to its students. It explores the limits of being open in educational provision through appropriate learner support networks and strategies.

Production and dispatch of learning materials

The quality of learning materials developed is contributing to create a learning society. The learning packages consist of 3342 blocks of print material, 1051 audiotapes and 1102 videocassettes. The average number of copies of the blocks printed in a year is over 10,204,000 and number of blocks dispatched is over 9,647,000. The study materials are also very popular with members of the public and candidates for the civil services' exams. The study materials are sold to individuals and institutions.
Student Services

The University has created a diversified students services network responding to the diversity of the learners. Nationwide student services network consists of 28 Regional Centres and 629 IGNOU Study Centres. Six Regional Centres have been established in Gangtok, Kohima, Aizwal, Itanagar, Agartala and Imphal under the project on educational development of North-Eastern States and Sikkim. Of the 629 Study Centres, 302 are regular Study Centres, 186 Programme Specific Centres, 22 Recognised Study Centres, 115 special Study Centres for disadvantaged groups of the society and 4 Minorities (5), Women (29), Jail Inmates (10), Physically disabled (6), Blind (4) and residents of remote and rural areas (52). A total of 72 work centers have been operationalised. This network is supported by Regional Directors, assisted by Coordinators and Academic Counselors.

For providing easy access to programmes and services, further diversification of the delivery system has been carried out in the form of a Single Window Operation for organizations employing a large number of personnel. A scheme of Single Window Operation for the delivery of the programmes to defence personnel has been operationalised by establishing Recognised Regional Centres for the Army, Navy and Air Force.
The Student Services Centre (SSC) at headquarters was established as a computerized networked Centre for all student support services form headquarters which include providing information, attending to general queries, grievance redressal, submission of examination forms, and sale of prospectus.

Evaluation

In many ways evaluation lies at the centre of the teaching-learning process. It provides 25-30 percentage weightage to continuous internal assessment by way of periodic assignments, practicals and seminars and 70 to 75 percent to term-end examinations. In continuous internal assessment, students are given extensive feedback so that they can improve their performance on the basis of comments given by their academic counselors at their study centers. The University conducted term-end examinations twice in June, and December. 370 examination centers were activated for conducting examinations. The University for admission to Management Programmes, Computer Programmes and B.Ed conducted open mat and other entrance tests.

Resources.

Finance is the life-blood of any institution. The University is making efforts to generate more internal resources and evolve effective systems of proper utilization of resources. There has been as appreciable improvement in the generation of internal resources. As against
realization of Rs.54.19 crores during 1998-99 the internal resources generated during 1999-2000 was Rs.81.42 crores, representing a 40 percent increase in income. The creation of infrastructure can be considered necessary for the efficient operation of the system. The University has made significant progress in campus construction, computerization and provision of library and documentation facilities. In the open and distance learning system, creating the physical infrastructure for networks connecting delivery centers with headquarters is particularly important. This facilitates easy transfer of information and data for both Regional Centre staff and learners. An intra-campus Local Area Network was set up at headquarters by the Computer Division install several smart switches and hubs at various location for the use of all the Schools and Divisions. The University is contemplating the extension of this facility to all Regional Centres.

The University has a comprehensive website. The site contains details of Schools and Divisions, programmes offered by the University and admission procedures. Some of the examination results immediately after their declaration have been put on the Web.

Library and Documentation

The Library and Documentation Division has a primary role in providing knowledge support for the preparation of learning materials. The University Library has 89 CD-ROM databases, 133 Microfilms and
more than 15,528 microfiches. The Library is equipped with a sophisticated server and multimedia computers, microform, 486 computers, reader-printer, scanner, lipid, laser and colour printers. The new, upgraded version of LibiSys-4 has been installed on the powerful server connecting multimedia computers at the Library with the existing Local Area Network (LAN) of the University. A CD-Net TNT Server 2000 has been procured with the capacity of stacking 28 CD-ROMs at a time.

The University has undertaken a range of initiatives in human resource development. Some of the major initiatives include training and research in distance education, media production, broadcasting and information technology; development of training modules for enumerators by School of Continuing Education; upgradation of knowledge and skills of science teachers in collaboration with UNESCO by School of Science; and initiatives in teacher education under the auspices of the School of Education – UNESCO Chair. It is significant that the latter initiatives attracted international participation. The promotion of education in human values is an emerging concern of the University. The University has envisaged that the entire range of educational programmes would be enriched with an orientation to human values.

Staff Training and Research in Distance education

The Staff Training and Research Institute of Distance education (STRIDE) were established with support received from the CIDI, Canada.
The main objectives of STRIDE are to develop training strategies and training materials to meet the various needs of different types of individuals and distance teaching/training institutions and organize and conduct training and staff development activities primarily in the South Asian region. It has extended its consultancy services to Bangladesh, Sri Lanka, Bhutan, Maldives, Mauritius, Myanmar, Seychelles, and Netherlands.

STRIDE endeavors to promote open and distance education at the fundamental, the experimental and the application levels in order to constantly enrich the training programmes, and the distance education system as well as the application of new communication technologies. STRIDE has undertaken major research projects in the areas of course design, development, evaluation of training activities and academic programmes. Within India, STRIDE looks after the training needs of the academics and all categories of the non-academic staff of the University, its regional centers, and state open universities and also those of the directorates/departments of correspondence courses or institutes/divisions functioning within conventional universities. Induction programmes are conducted for the newly recruited teachers of IGNOU. Round Table workshops of heads of staff development units of open universities are organized to chalk out strategies of mutual collaboration, to identify functional areas of focus for staff development and to chalk out action
plans for improving the quality of the distance and open learning system. STRIDE provides training to the faculty of the open universities to develop self-learning materials and to transform the existing materials to self-learning materials.
Reference

1. Keegan, D (1986) *The Foundations of Distance Education*, Landon, Croom Helm, p. 4

2. Ramanujam, P.R and Kaul M.L (1987) *Readings in Distance Education-I*, The Division of Distance Education, IGNOU, New Delhi.

3. IGNOU (STRIDE) (1999) *Growth and Philosophy of Distance Education*, E.S 3.11


9. Keegan, D (1986) op.cit

10. Sharma, M (1986) "Issues in Distance Education" in *Distance Education, Asian Development Bank*, Manila

11. Selim, M.C (1986) *Distance Education in Asia and Pacific* in *Distance Education, Asian Development Bank*, Manila