The Role of Distance Open Learning (DOL) in Building Lifelong Education and Learning Society for the 21st Century

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บทความนี้เป็นเอกสารประกอบการบรรยายพิเศษของศาสตราจารย์ ดร.วิจิตร ศรีสอ้าน ที่ได้ให้เกียรติเป็นองค์ปาฐกในการประชุมทางวิชาการของ สออ.ประเทศไทย ครั้งที่ 8 เมื่อวันศุกร์ที่ 11 มกราคม 2545 ณ มหาวิทยาลัยมหิดล ศาลายา ซึ่งเอกสารฉบับนี้ได้นำไปเผยแพร่ในการประชุม The '98 Shanghai International Open and Distance Education Symposium เมื่อวันที่ 15 เมษายน 2541 ณ Shanghai TV University นครเซี่ยงไฮ้ สาธารณรัฐประชาชนจีน

1. Introduction

If we are to give one major feature of the last decades of this century, one of them would be the dramatic and rapid changes in all aspects of life: political, social, economic and technological. Some of them are for the betterment of humanity, while others unfortunately have some negative impacts. For example, we witnessed the end of the cold war which gave some political stability to the world, there was unification of formerly divided countries, the independence of many states formerly under a monolithic organization, the grouping of countries into regional organizations, the change from centralized to market economy, the greater participation of women in socio-political affairs, extension of life expectancy, increased agricultural and industrial productivity, better means of transportation and communication, availability of cellular phones and computer and many others.

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On the other hand, there was an increase in international terrorism, the weakening of the family, formation and bursting of bubble economics, upsurge in the use of drugs and the pandemic occurrence of AIDS or HIV, continued exploitation of women and children, depletion of the ozone layers, increased problem of pollution and environmental degradation, the resurgence of some communicable diseases like TB, just to mention a few.

The rate of change is expected to increase even at a faster rate in the next millennium. Humankind must therefore learn how to meet and survive the challenges brought about by these changes. One strategy is through education, an education throughout the life of the person that would equip oneself with skills, knowledge, information that could be utilized for lifelong improvement and the ability to influence the forces of change to one's advantages.

Among the important present forces of change are the results of technological advances in transportation, specially air transportation facilities, as well as the telecommunication and information technologies. As a result, people and resources can easily be moved around the globe. There is a breakdown in geographical, political and socio-economic boundaries. This freer flow or movement of people and resources has fostered internationalization and globalization. There is no longer an isolated country as all countries can be reached within minutes if not seconds by modern telecommunication facilities through fiber optic network or satellite transmission. Information can be instantaneously transferred through electronic means. Information has therefore become a new form of capital and power. The countries that have control of information will lead the world. An information society has therefore begun and would continue to intensify in the 21st century, or even after.

The establishment of an information society will have important

implications in the educational system of any country. In the traditional and formal school- or university-based educational system, the teacher or professor is the source of information. It is a teacher- or professor-centered form of education.

However, with the geometric increase in information, the professor or the school can no longer be the only source of information. The student must learn how to search the information himself. As expressed in many new educational paradigms, the student must learn to learn independently throughout his life.

Most of the past and to a great extent even the present school-based education is still passive. The teacher teaches and the student, are expected to learn. Although learning could be highly motivated with some students, success in examination and competition is usually the major motivational force. Getting more A's does not necessarily mean brighter students, but just being exam smart.

This type of culture and attitude will not be appropriate and useful in a learning and information society. An information society must also be a learning society. Such society with a learning culture would place high values on education and training and would also provide a favorable environment for the acceptance of the philosophy of a lifelong education and learning.

There are some of the ideas I would like to pursue further in this paper. Therefore, I intend to divide my presentation into five major parts: namely, (1) the role of lifelong education and learning in an information and learning society of the 21st century; (2) some strategies for attaining and providing lifelong education and learning, specially (3) the role of open and distance learning in lifelong education, (4) the application of modern technologies in providing such mode of education delivery and finally (5) some strategies for attaining some modalities in the Asia-Pacific region, specially in Southeast Asia.

2. Lifelong Education and Learning

2.1 Definitions

Lifelong education has been defined as a set of organizational administrative and methodological and procedural measures (Knapper and Cropley, 1986), while lifelong learning is considered as the habit of continuously learning throughout life, as a mode of behaviour (Ironside, 1989). Lifelong education is therefore a set of extrinsic, supply-oriented factors which identifies the needs and provided means; while lifelong learning is intrinsic, demand oriented and dependent upon learner motivation and ability. In this paper, however, there will be less distinction between lifelong education and lifelong learning and thus the two will be used loosely as interchangeable concepts.

With the very high rate of attainment of the goals of the Jomtien Conference on Education for all in almost all countries of the world, the majority of the youths can receive compulsory basic education of 6 to 12 years which preparatory for either vocational or professional education. This may be obtained whether through school-based formal schemes or community-based non-formal modes. Many countries now have also provisions for adult literacy education and education for the handicapped and other marginalized groups.

However, most of the education for all programs are still the traditional formal or school-based education which as mentioned earlier is very teacher-centered. The teacher confers knowledge and the students absorb what is taught. Unfortunately, teaching does not always lead to learning. The system is usually bureaucratic, rigid or fixed and is therefore inert and resistant to change. Students have access to this type of education at prescribed age or stage of their development, delivered in a definite location and at a definite time, following specific curricula mandated by a ministry of education, all done in the

name of administrative efficiency, if not expediency. I usually refer to this type of education as limited education.

However, in a learning and information society, education can no longer be limited to a certain stage or development, nor to a single mode of delivery. As described by Jarvis (1995), in a learning society, education is learner-based, with no access barrier and providing multi-faceted lifelong opportunities. It is a society organized in such a manner that all learning opportunities are available to everyone on a full- or part-time basis. Thus, a true learning society is one where the right to learn is protected and everyone can continue learning for whatever reasons they choose, by various means, with abundant resources and complete flexibility.

In a learning society therefore, education must be open. It must be accessible to all individuals of any age, gender, religion, socio-economic status and previous training. It must be available at all times in their lives so that new learning needs could be met whenever and wherever they arise.

In a learning society, there will be an integration of education for youths and adults, forming a single continuum. There will also be blurring between boundaries of differences between formal, non-formal and informal education specially with the application of multimedia and interactive coursewares in face-to-face and distance mode of education deliveries or in virtual compuses.

In a learning society, teachers would have a new role as facilitator, helping individuals identify their learning needs and give advice on sources of information and how information can be best utilized in meeting the learner's needs. Such learning must be flexible, creative and responsive. This type of education is an open education and is the appropriate means for attaining lifelong education and learning.

2.2 Values of Lifelong Education and Learning

With the fast changes in the various aspects of human life in the present society, there is need for lifelong education that would be required for both professional and vocational growth as well as personal satisfaction. Lifelong education and learning in a learning society is pursued for self-improvement and fulfillment of one's potential. The improvement in the quality of the workforce would in turn lead to better quality products and services that would enhance competitive advantage in a global economy. In a better informed society, prejudices and intolerance would be less and therefore social quality of life in a community would also be greatly enriched.

a. Enhancement of competitive advantage in global economy

In a globalized economy, there is need for inter-disciplinary and multi-disciplinary as well as multi-cultural workteam. Graduates of universities are therefore expected to have global competencies, values and attitudes. The graduates must have sufficient fundamental knowledge in the chosen specialized field. He or she must also have acquired some degree of multi-disciplinary skills and a proactive mindset like the ability to seek, process and apply information. The graduate must therefore be computer and information technology literate. A global worker must also have some high level of generic skills like that of communication abilities, namely the ability to listen, speak and write in preferably two or more languages; to work as member of a team and thus have good interpersonal and networking skills. The person must be innovative, critical and must possess leadership and managerial skills. At the same time, the graduate must have a strong sense of social responsibility and of high moral integrity. The global citizen must foster international values and ethos like democracy, human rights, peace and concern for environment. The person must

also be tolerant and appreciative of cultural diversity. These multiple competencies cannot all be acquired during the formal education years, but at different levels throughout life. The goal of lifelong learning and education is therefore of fulfillment the actualization of ones full potentials.

In an information society and globalized economy that is characterized by advances in research as well as application of new technologies and transfer of information in the world of work, there is a great competitive advantage with a workplace that incorporates a vision, strategy as well as structure of continuous learning. The workplace culture or environment must promote the acquisition of new knowledge through both formal and informal exposure to new information, ideas and experiences. Workers would require recurrent education and learning for maintenance of quality of work and for adjusting to new demands. These improvements in workforce would in turn lead to better quality products and services that would provide impetus to greater economic development of the whole society.

b. For personal development and enrichment

With the great improvement in medical services and general quality of life, the average human life span has greatly increased. Workers who retire at 60 or 65 are still healthy and could still contribute actively to the society's economy and development. They may, however, require some retraining in order to have a new occupation. Some of the retired workers also have more time to satisfy their own personal needs for education just for leisure. Whether for a new job or just for pleasure, the aging population would require opportunities for adult or continuing education.

At a certain stage of a woman's life, preference may be given to establishing a family and raising children. However, when the

children can be more independent, many women would like to return to work. There is therefore a felt need for more women to enter into continuing education programs in order for up-dating or gaining new skills. They must therefore have access to lifelong learning opportunities.

c. For resolving social and cultural issues

Lifelong and continuing education could also be a tool for resolving social and cultural issues. In a better informed society, prejudices and intolerance would be less. There would therefore be better understanding and peace in such a community. Lifelong education thus promotes solution of social and psychological problems resulting from a multicultural society or from stresses due to change. Lifelong education can therefore promote harmony, peace and happiness in a community life.

2.3 Requirements for Lifelong Education and Learning

The implementation of a successful lifelong education and learning would require effective planning, efficient organizational structure, trained humanpower and mobilization of resources. Some of these and other requirements of a successful lifelong education and learning will be discussed in this sub-section.

a. Recognition and application of andragogical concepts and practices

Most clients of continuing and lifelong education are adults. Their wealth of experience must be considered in planning lifelong education programs. Adults would participate more intently in the learning process as they are self-motivated and goal oriented. Consideration of constraints like time and place for study must be given enough attention in the preparation of lifelong education programs. As adults, they may have work or family commitments which must be considered. Thus, a certain degree of flexibility in the programming must be provided.

The process must not only provide the needed knowledge and skills but, must motivate and empower the learner and nurture self-direction so that the process of learning is autonomous and continuous. Learning is not only receiving information but, making sense of it and thus being able to use and own it. The learner has to be an active participant and not a mere recipient or spectator. The students must take responsibility for their own learning. Higher order process skills would be required of learners to enable them to synthesize, evaluate, adapt and apply the information or knowledge and skills acquired in the constantly changing world.

b. Synergistic interaction between all stakeholders and participants

For lifelong learning to occur, there must be the synergistic interaction between the learner, the educational institutions and other providers of knowledge, the government, the private sectors and industries that serve as employers and the members of the community at large.

Lifelong learning would require a well-designed infrastructure supportive of the growth of a strong learning society. This is usually the responsibility of the public sector or the government, both local and national. The government aside from providing funds must also promulgate policies supportive of quality lifelong education and learning. The private sector, i.e. the business and industrial enterprises that serve as employers, the NGOs and the whole community should also contribute to the provision of lifelong learning facilities and opportunities. They could help in providing funds as well as in motivating their workers and providing the necessary opportunities and support. The enhancement of learning culture in an information society would therefore need collaboration by all stakeholders and participants in the learning enterprise not only nationally but internationally.

c. Provision of appropriate hardware, software and humanware

One modern feature of lifelong education and learning would be the use of modern telecommunication and information technologies. The educational institutions would thus have new roles and responsibilities in a learning and information society. They should lead in the acquisition of the needed hardware and the provision of the complementary software and humanware. The hardware consists of the facilities and technologies that would be required in the innovative delivery systems. The educational institutions must also be responsible for the production of the needed interactive multimedia coursewares which must be learner-centered and must therefore be adapted to different cognitive processes and levels of learners.

Highly qualified and trained humanware is also an important requirement of successful lifelong training. No matter how advanced the technology is, it will still be a human being who will design the inter- and multidisciplinary as well as cross-cultural instructional packages. Since the goal of lifelong learning modules is no longer information transfer, it is not necessary to pack the curriculum with as much content as possible, but, rather it must allow opportunity for reflective thinking and in-depth learning.

As previously mentioned, in lifelong learning situations, the teachers are more of facilitators, giving support and encouragement, listening to learners, providing access to certain tools and resources as well as maintaining a conducive learning environment. The teacher has still to be a content specialist in order to be able to help in the analysis of information and facilitate their utilization in critical thinking or problem solving activities of the students.

2.4 Quality, Relevance, Accessibility and Affordability

The learning modules for lifelong education must be of equal quality if not better than the instructional materials received in the

traditional delivery systems. The modules must be work-based and competence-based. The knowledge and skills acquired must be applicable to problem solving and critical thinking or to the improvement of performance in the workplace.

As previously mentioned, there must be no barriers to the access of educational opportunities. It must be available to everybody, any time and anywhere. There must be flexible training schedules and venues.

The fees for the courses must be financially affordable by all or a scheme of scholarship or support must be made available through the government or the employer. This is specially true for the marginalized groups.

2.5 Strategies for Lifelong Learning

a. Revision of education institution roles and responsibilities

In a lifelong learning society, the universities would require revision of roles and responsibilities. Aside from the traditional missions of providing formal degree courses and undertaking research, the universities must enhance their mission. They must embrace the lifelong education paradigm and provide services to both youths and adults through both formal and informal mode of education delivery of face-to-face and or distance mode.

b. Optimization of use of technologies

Technology based training is an exciting alternative to traditional educational system. Technology can be applied to provide opportunities for the learner to (1) practise a wide variety of skills, (2) obtain appropriate knowledge for comprehensive understanding and even mastery of a given subject content, (3) access, analyze synthesize and use data and information, (4) develop creative thinking and problem solving skills through modeling and simulations, and (5) to communicate effectively.

Recent developments in digital technologies have greatly improved the speed, the volume and quality of information or data that can be transmitted through satellite communications and fiber optics. The continued reduction in cost of personal computers permits learners to link directly to data sources. The Internet has brought to the reach of learners databases that far exceed what any single library can provide such mass of reference materials. It also permits direct contact with experts all over the world and with co-learners as well.

Interactive multimedia coursewares can now be produced by teachers at lower cost and shorter period of time after some training. Their use has made learning more interesting, meaningful and enjoyable. These technologies would permit on-line synchronous distance education. Basic, multiple station computer sites would permit networking among the various members of the learning society. Thus, lifelong education programs can be easily adaptable to the learner's needs, flexible and economically available to all.

c. Operationalization of articulation and credit transfer

Academic diplomas and certificates are still very much valued in all societies in a workplace. Thus, the provisions of credit for experiential learning in workplaces like industries and the recognition of non-credit programs in formal classrooms as in extramural courses would provide additional incentives for adults to enroll in continuing or lifelong education courses. Such articulation and credit transfers would allow translation into a degree or certificate credit of professional upgrading documented at any point in life. Such recognition by governments and universities of the various learning programs would have motivational effects on the learners. A computerized academic credit banking for every person can be established in a lifelong learning center. It is this learning or educational portfolio that could

be evaluated in job placement and promotion.

d. Use of alternative sources of information and education

In an electronically-based information society, educational institutions are no longer the sole providers of information and education. The private sector, then will crowd the marketplace on a broader, regional and perhaps even global scale, winning clients from government-run educational institutions.

The private businesses may include specialized training centers or research laboratories, professional organizations, multinational companies, NGOs or even individual entrepreneurs. They may be run by consultancy groups or think tanks from government institutions or universities. Their sites of operations are linked by modern telecommunication facilities like faxes, emails, mobile phones or Internet. Work teams are usually ad hoc depending upon specific topic or area of training and length of demand. They are therefore more flexible and can adopt multimodal delivery systems.

Such businesses are generating information and knowledge as well as producing performative products which can be packaged and sold directly to paying customers. They produce just in time assemblages or continuously improve products in order to remain demand-driven. Quality control is determined by the degree of success or failure of the marketability of the courses or knowledge sold, effectiveness of results or solutions proposed and satisfaction of the clients.

e. Distance and open learning

One strategy to provide lifelong education needs of a greater number of people at reasonable cost is by distance and open learning. Open learning is a borderless form of education in that there are no limitations regarding admission to its programs. All citizens of a learning society can access distance and open modes of education.

Open universities are no longer just to obtain a first degree, but to provide education for all in various fields and in various forms, at any time and anywhere.

Distance education is teaching and learning process in which a significant proportion of the teaching is conducted by someone remote or removed in space and time from the learner. It usually involves the use of mixed media reinforced by print materials and some two-way communication between the tutor and learner. It overcomes the constraints of specified location and timing of study which characterized face-to-face teaching.

Distance education can be considered as an industrialized form of teaching based on objectivized, rationalized technologically produced interaction between the institution and the learner. There is a more or less an industry-like system of material production, stocking, and distribution as well as monitoring and evaluation.

As previously mentioned, the traditional institution-based education is a limited type of education. The institution limits or control who can have access, when, where and how the education will be delivered and assessed. On the other hand, distance and open learning are expanded education modes as they seek to increase educational opportunities in the greatest number possible. They are learner-centered and there are no barriers to access, and with more flexible scheduling of time and venue of learning.

Distance education need not be limited to formal or degree education but could extend to non-formal education. It can also cover all levels from basic to professional education and adult or continuing education.

Thus, with lifelong education in a learning and information society, education is considered as an integrated process of learning throughout the lifespan of the individual. It is a continuum of education

from the creche or crib to old age. There is a blurring of boundaries between formal, non-formal and informal education specially with the use of modern telecommunication and information technologies in the delivery of the educational materials, which can be face-to-face or distance mode or combined. The challenge is how to effectively and efficiently coordinate and integrate efforts of both public and private educational institutions, the government, the private sectors and other employers and the whole community in meeting lifelong education needs. One such strategy is through regional and international cooperation.

f. Regional cooperation as an operational strategy

One possible strategy for the operationalization of lifelong education is the intergovernmental support to the networking and regional cooperation of educational institutions in providing lifelong learning. Sharing of cost of infrastructure and operation as well as the limited number of content experts and educational technologists available in universities will be the only viable modus operandi. There could be sharing of databases, of already produced coursewares and trained personnel. Networking would also permit the adoption of international standards and improvement in the quality of teaching-learning materials and modes of delivery. Most importantly, there must be a networking not only computers as in Internets and Intranets, but, also a networking of people. It is still through personal contact and sharing of intelligence, knowledge, creativity, aspiration, friendships and common goals that sustainability and quality of lifelong education can be maintained.

One such network which was recently formed is the Asia-Pacific Distance and Multimedia Education Network or APDMEN. It is under the umbrella of the Association of Universities of Asia and the Pacific or AUAP, for short. The latter is a grouping of about 180

universities from 20 countries in the Asia-Pacific region. The APDMEN aims to promote quality distance and multimedia education through production and use of quality interactive multimedia teaching and learning materials in both traditional and distance mode of education deliveries. The initial 14 universities from 10 countries agreed to share coursewares already produced by the network, to produce new ones, to train faculty members in the production of interactive multimedia coursewares and to pioneer the establishment of virtual campus among the member universities. The Network also hopes to engage the participation of industries involved in telecommunication and information technologies as well as the support of the governments of member universities. The Network hopes to provide the necessary lifelong education through distance and multimedia modes to the citizens of a learning society in the region to meet the demands and challenges of the 21st century.