

Review

Information and communication technology as synergy for sourcing distance education: the feasibility in Cameroon education system

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The concept of distance education or learning is not new but welcoming in Cameroon especially with the advances in information and communication technology as the synergy for sourcing it. Information as the lifeblood of organisations is knowledge, intelligence or education while information technology is essentially the computerised or electronic technology as opposed to communication, which is thought of in terms of: media or skills of and organisation of communications. Both information and communication technology however, facilitate the feasibility of distance education or learning. This paper, therefore aims at prying (examining): the win on distance education, the role of information and communication technology as synergy for sourcing distance learning; the modes of delivering the curricula, which include: the face-to-face contact; electronic-print media; library and Internet, and the implications for Cameroon/education. Finally this paper ends up with conclusion and some recommendations made: that if not all the modes, the print media should be used to facilitate distance education or learning in Cameroon.

Key words: Information, communication technology synergy, distance education learning, implications and Cameroon.

INTRODUCTION

Information is the lifeblood of organisations, (Baron and Greenberg, 1986) and in common usage, it designates knowledge, intelligence given or education had. Information technology refers to the (especially computerised or electronic) technology related to the gathering, recording and communicating of information. Information and communication technologies as a synergy, therefore, can effectively foster distance learning (Open University) in a nation like Cameroon. Communication on the other hand, is multifaceted in nature characterised by subtlety, variety and ubiquity (existing everywhere). It is thus “the process of passing information and understanding from one person to another,” (Hoy and Miskel, 1978). It is used in many scientific approaches: mathematical, social, psychological, linguistic and anthropological spheres.

Communication is also that process of creating, transmitting and interpreting ideas, facts {intellectual opinions and feelings (rapport)}. It is essentially a sharing process of a mutual interchange between two or more persons,

(Cole 1990). In organisations, (including schools, colleges and universities), communication is generally thought of in terms of: (i) the media of communication e.g. memos, reports etc, (ii) the skills of communication e.g. giving instructions, interviewing, chairing meetings etc. (iii) the organisation of communications e.g. the chain of command, briefing groups, committees etc. (Anja, 1992). These views concerning communication technology are condition sine qua non for effective distance learning in societies where distance education system is practised.

Not every form of communication, however is verbal, some are expressed through body movements, facial expressions or actions without necessarily being expressed in words. Communication is therefore both verbal and non-verbal, (Ogunmilade, 1984). Media are “forms of communications through which teaching and learning can take place” (Ogunmilade, 1984). Distance learning can therefore take roots where there is a sound and adequate

media of instruction and communications, (Anja, 2005).

Distance education will function in a country with the practice of distance education programmes. In Cameroon, only University of Dschang practises it and it is limited to the department of Agriculture and Agronomy. What is the difference between distance education and distance learning?

Distance education refers to the provision of educational courses e.g. by television or correspondence courses for students unable to attend in person the educational institution, (Chambers English Dictionary, 1990). It is "the teaching learning process in which students are separated from the teachers by a physical distance which is often bridged by modern communication media," (Chander, 1999). On the other hand, distance learning refers to the following up of such educational courses because without distance education there is no distance learning. The acquisition and habitual utilisation of new knowledge, ideas, skills, values and experiences which enable the individual to modify or alter his actions to realise his goals, is by students following up classes on television screens placed either in front of their classrooms or at their homes. In print media, the process of distance learning is self-instructional.

The win on distance education (ED)

Distance education dates as far back as to Apostle Paul's famous writing of his Epistles to different Churches and Church elders (Agboola, 2000). Most people in high positions in Cameroon both in public and private sectors had their education through distance learning by correspondence courses from schools overseas, such as the Cambridge University of the United Kingdom in Europe or Harvard University in U.S.A. Rapid Result College, Walsey Hall College, Associate College of Preceptors (ACP) Licentiate Collage of Preceptors (LCP) etc were the most widely known institutions for distance education through correspondence courses. The print media of instruction and communications constituted the paramount mode of curriculum delivery.

The advent of distance education through Open University system does not only enhance human development in both public and private sectors but also in sustainable national development. Distance education system in our present global village will foster the global slogan of education for all (E.F.A).

The major international conferences especially those concerning education and in which Cameroon is a partaker advocate education for all to eliminate illiteracy. Introduction of distance education in Cameroonian State Universities will obviously be a good policy and a move towards the right direction. Some of the International Conferences held in the past include: (i) The World Conference on Education for All {(Jomtien, Conference on Education (March, 1990))} which articulated the concept of and the promotion of basic education for the consoli-

dation of the skills of literacy and numeracy (survival skills) for life long and life wide learning. (ii) The Dakar Education for All forum of April (2000) is important for its ideals which are embedded in its famous six goals which emphasise improvement on early childhood care and education especially for the most vulnerable and disadvantaged children; ensuring that children from ethnic minority groups or difficult circumstances particularly the girls have access to complete free and compulsory primary education by the year 2015; ensuring equitable learning needs and access to appropriate learning life skills programmes; the achievement of 50% improvement of the levels of adult literacy especially for women by the year 2015; eliminate gender disparities in primary education by 2005 which has already passed and achievement for gender equality in education with particular focus on girls in good quality basic education; improvement in all aspects of quality education; encourage excellence on recognised measurable outcomes for all especially in literacy and life long skills for all. (iii) The United Nations Conference on Environment and development in Rio de Janeiro (1992) (iv) The International Congress on Education for Human Rights and Democracy in Montreal – Canada (1993), (v) The E-9 Summit on the World's most populous countries, with the largest concentration of illiterates in New Delhi-India in (1992). (vi). The International Conference on population and Development in Cairo-Egypt (1994). (vii) The World Conference on special needs Education in Salamanca, (1994). (viii) The World Conference on Higher Education in Paris – France (1998) emphasised on strengthening cooperation with the world of work and analysing and anticipating societal needs. This means that the links between Higher Education, the world of work and other parts of society should be strengthened and improved. In order to respond to work requirements, higher education systems and the world of work should jointly develop and assess learning processes, which integrate theory and practice. Developing entrepreneurial skills and initiatives should become a major concern of higher education in order to facilitate employability of graduates who will not only be job seekers but also job creators, (Obanya, 2003). (ix) The Pan-African Conference on the Education of the Girls in Ouagadougou-Burkina-Faso (1993) (x) African Conference on the empowerment of women through functional literacy and the Education of the Girl-child in Kampala-Uganda in (1996) etc (Obanya, 2003).

The goals and objectives of the above mentioned major International Conferences could only be fully met if some other ways of educating people are devised. Distance education is therefore very indispensable. The yearning spirit of Cameroonians of both sexes and of old and young for education especially for university education is a call for much concern. The provision of distance education for distance learning instead of depending solely on the conventional methods of face-to-face teaching will go a long way for assuaging the situation. It will thus accele-

rate the rate of literacy in the country. University Education will thus be made easily accessible and available to the qualified persons seeking especially those who cannot otherwise secure placements in the state universities in the country. The high teeming population of both adults and youths seeking admission into the universities would be reduced. The teeming population includes civil servants who are working and want job security while at the same time use distance education to achieve not only their self actualisation needs but also to improve their skills and competences for promotion in their jobs.

Distance learning gives adults who are not satisfied with their present jobs the chances to change without necessarily leaving them before acquiring the skills and competencies needed for the new preference. The ease, with which information is obtained, disseminated and the volume reflects measures of social and economic development (Chiaka and Obi, 2003). With these information and communication technologies, distance education can function effectively. Through distance education, the skills and competencies of stakeholders are improved and this will lead to motivation and productivity of their human resources in the social-political and economic life of the nation.

Information and communication technology as synergy for sourcing distance education

Adequate and appropriate information and communication technologies as a synergy is essentially good for sourcing distance education for distance learning. Both the public and private workers should strive to make maximum use of the existing aspects of the information and communication technology. Knowledge, tools and techniques, which designate technology, are very indispensable in any modern organisation especially when the concept of distance education is conceived. Technology has therefore brought many ways of functions in various spheres of organisations including schools, colleges and universities for the teaching and learning processes essentially in open universities for distance education. According to Obanya (2003) "The World (including some African Nations) is well into the knowledge age, characterised by the consolidation of learning societies and reaping the full advantages of new information and communication technologies."

According to Obi (2003) observation, "Information technology has invaded the Nigerian business offices." Computers based information systems which Akudolu and Umenyi (2003) call "information technology" is really flooding every sector of the economy in Cameroon. Educational institutions are not lagging (that is, falling behind) except those located in remote areas where there is no electricity.

The use of print and electronic media is now modified to use the advances made in telecommunications to improve the quality of curriculum implementation especially

of the training in oracy skills in languages. It is very important for distance education because information and communication either in print or electronic media are antecedence to effective curriculum delivery in distance learning.

According to Ukachi (1985) "... fundamental outcome of the general education component should be proficiency in the art of communication." Proficiency in information and communication technologies will obviously result in positive outcomes in distance education programmes. The models of curricular delivery for distance learning education are very important for effectiveness and productive outcomes from the programmes.

Modes of delivering curricula for distance education

The following modes are evident and feasible: Face-to-face contact; electronic media, print media, library and Internet.

The face-to-face contact

This mode may be used to supplement the other modes of delivery. In this mode, students are provided occasional periods to meet their lecturers in a formal classroom setting. Students are thus given the opportunities to meet and interact with both their lecturers and classmates. The period or duration for such formal classroom interaction is determined by the organisers of the distance learning programmes. It may comprise part time and long vacation programmes during weekends or long vacations for each semester but ensuring that adequate coverage is done as concerns the curriculum content according to full time credit hours. Full time credit hours may be difficult to actualise because some courses have many topics to cover in a semester. It is to this limitation that the face-to-face contact mode is supplementary to other modes.

Electronic media

The global village with many advances in technology especially in telecommunications has made things easier and possible for students to sit any where or in their houses and receive tutorials, lectures and instructions from their teachers without necessarily being in any physical contacts (Maisamari, 2003). Electronic media are simply information-carrying technologies used for information. The big (television, sound films and computers assisted instruction) and small (slides, slide films, transparencies, radio, air times and programmed texts) media with time scheduled can enable students received their lectures and instructions. Such lectures by the electronic media may be broadcast live or recorded. The present advancement in information technology (IT) (that is., all computer based information systems, has added

another dimension to electronic media communication such as the website, VISAT can be used for the purposes of delivering lectures of distance learning education.

The electronic media mode, however, is not without its limitations. There is the lack of personal contact, which is very essential in the conventional classroom transaction, there is only one-way channel of communication and this impedes any control of the flow of information by both the students and the teachers since there is no feedback for any adjustment in speech, content or scope and the methodology. The teaching learning process is teacher or subject centred contrary to the new pedagogic approach (NPA) in which the teacher is supposed to do less of the talking while the students do more of it. It is thus mostly the lecture method. While this mode may be effective in some courses, nevertheless, caution, adequate preparation and planning must be taken to minimize these limitations especially with the erratic (irregular or unpredictable) power supply by AES SONEL. Television as a medium of instruction and communication can be appropriate for delivering lessons in distance learning.

There are two types of television for educational instruction. These are: instructional television (ITV) and the educational television (ETV). The instructional television is a closed circuit television, which brings lectures, demonstrations and programmes into the classroom.

Individual or groups of individual students can create that is, own or purchase the programmes from their institutions of distance learning. The educational television consists simply of those programmes of an educational nature shown on the commercial network or on the public broadcasting system, (Elias et al., 1986). Be it the instructional television or the educational type, the choice of either will be determined by the school (Open University) and the Socio-Economic Status (S.E.S) of the students involved in the distance learning education. The inclement weather couples with unsteady telecommunication waves and the timing schedule for lectures especially as light often time disrupts delivering of lectures in distance learning. These are the shortcomings against the effectiveness of electronic media as a mode for delivering lessons of distance education. Another mode of vitality is the print media.

The print media

Print media is most popular in the implementation of curricula of distance education. It comprises newspapers of all types and in the developed World constitutes one of the most common methods of teaching; especially in distance learning. In it, course materials are prepared and printed in the major newspapers in the country or in a self-instructional form. The materials are either in modules or Units in which the teachers provide learning activities with self- assessment devices for the student to monitor his or her progress. The course materials are in the form of lecture series or instructional manual espe-

cially when they involve practicals. Different institutions of distance learning can devise or adopt different strategies for the production of the print media materials.

The students who are registered members buy or pay for such printed materials so as to follow up the programmes. The teachers who prepare such course programmes may use the face-to-face contact mode about two or three times in a semester to answer questions and to evaluate the students' performances (Anja, 2005). The course printed materials are in alignment with each credit units, which are made up of several lectures with each specific set objectives.

The limitations to the print media mode are that they lack social interactions, which play important roles in language learning, in cooperative teaching and terming situations. The library and internet can also be potential modes for sourcing distance education.

Library and internet

Ozioko (2003) and Roe (1965) refer to the school library as an oasis of informality in a generally formal system. Elaturoti (Dike, 2001) calls it a refuge to a child escaping from the tedious and boring classroom life; a port of call for readers in search of adventure; a tree for children to climb high in the process of discovering life in its rich and varied forms; a gallery for exhibiting artwork; a lounge for teachers to relax after school and to prepare lessons; a place for sharing and creating a couch for good conversation; a workshop for the children undertaking research projects etc. A school library is therefore a teaching as well as a learning laboratory where the users develop the skills required for life long learning (Reuben et al., 2003). Such attributes attached to a school library means that students engaged in distance learning may greatly lack the facilities of the library. However, public libraries if well equipped with facilities in the form of print and non- print materials can enhance effective self- instruction in distance education. A library as a school media centre is a unique place because it is a public place with many educational resources. The usefulness of school libraries may no longer be seen as store houses of books but as buildings, which collect recorded communications in various forms. This is so because according to Chandler, (1965) and Orr, (1972) technological explosions, coupled with the rapid advances of formal education and the creation of more libraries has created a new atmosphere for today educationists and librarians. Modern technology has produced a wide variety of non-books, graphic slides, video tapes, micro texts, audio tapes and records, needed to be stored in modern libraries plus the printed materials of books, periodicals and pamphlets. The library may thus be seen no longer as a place for books but as a building, which collects various forms of record-ed communications. The website and Internet facilities available via the satellite system can effectively facilitate distance learning programmes.

The library and internet will supplement what lecturers prepare and print for students. The teacher in reproducing printed course materials, as lecture notes should include a list of reference books from which the materials can be found in detail and from variety of sources. A student of distance education can benefit from such library facilities. The feasibility of distance education programmes in Cameroon is the next aspect.

Feasibility of distance education in Cameroon

Cameroon as a developing nation is dynamic to the advances in information and communication technology. The quest for university education is quite high for both young and old; especially the working civil servants who want to actualise their aspirations but are unable to attend in persons any State University in the country.

The institutionalisation of distance education in all the State Universities is a major issue of discourse among many quarters in the country. Presently, only University of Dschang practices it but this is limited to the department of Agriculture and Agronomy. With the advent of advanced technology in information and communication, the general public especially the sector that takes knowledge as a prerequisite for life long education are anxiously waiting for the introduction of distance education in most higher institutions of learning. Another feasibility is that many Cameroonians are still engaged in overseas correspondence courses because distance education programmes are not available. The aspiration for distance education is bereaved by many short comings:

The advances and availability of the information and communication technologies are not available in every part of the country. The low per capital income of civil servants and the private sector does not augur well for them to be able to engage in distance education.

Teaching by the media is not only very expensive but also difficult for Cameroonian students to get media materials. To integrate computer teaching in distance education will also depend on the financial, material and human resources of the Cameroon Government. It must be noted that, many Cameroonians do not yet have experience and skills in using the computer teaching largely because of none availability and none involvement in Computer at home since computers are complex and expensive media to be made available. Despite these shortcomings the concept of distance learning through Open University is welcome in Cameroon.

Implications for distance education in Cameroon

The concept and practice of Distance Learning in Cameroon is not new because most Cameroonians in high positions of responsibilities went through distance learning in overseas, colleges and universities. That was by correspondence courses, which involved mostly the print media. Today the costs of such ventures have soared to

an alarming rate that Cameroonians have no other options than to look for alternatives in Cameroon. The situation in Cameroon is not without some implications.

The bilingual nature of Cameroon calls for an appropriate orientation against an effective implementation of the course materials so as not to favour one side and disfavour another. It will therefore demand the recruitment of adequate lecturers from the two lingua francas (English and French) for the distance education programmes. The present State Universities do not have enough technical staff. Most depend upon part time lecturers who are hardly paid on time.

Although media resources are essentially important synergies for sourcing distance education; unfortunately these are not available in most parts of the nation. More importantly and regrettably, too, is the fact that both the electronic and print media are expensive for students to purchase for all the course modules in their distance education programmes.

According to the Minister of Cam Post's message during the commemoration of the International Day of Post and Telecommunications on 7th September (2006) "less than 30% of the country is covered by information and communication network". Cameroon therefore is still far behind in the availability of information and communication technologies, a situation which does not favour the concept and introduction of distance learning by electronic media.

In Britain, researchers claim that 90% of young people aged 5 – 17 use computers and 59% of them use the Internet. This gives children the unprecedented access to information a good thing if the internet is used responsibly with sufficient adult supervision, (Awake, 2005). In Cameroon, the situation is far behind.

The normal laboratory teaching is virtually non-existent in distance learning. To think of it in distance education is to demand Cameroon Government or individual students to establish them in their homes where they reside or at each study centre, a thing the nation's economy or the Socio-Economic Status of the students cannot cope with.

Using modern technological facilities such as computers, "Chalkboards" of tomorrow, televisions and Internet for distance learning is down-to-earth, but how many Cameroonian students engaging in distance learning will be able to afford it. With time, however, instructional or information and communication technologies will gradually feature as potential common synergies for sourcing distance learning in Open Universities in Cameroon.

Conclusion and Recommendations

Attempts have been made in this paper to pry information and communication technology as synergy for sourcing distance education. The concepts of information and communication technology, distance education and learning have been deeply defined as well as the various

modes of curricular delivery for distance education. The feasibility of distance education and the implications for Cameroon education system have also been pertinently examined. It is therefore recommended that the modes of curricular delivery such as electronic and print media be improved upon so as to meet up with the Cameroonian aspirations for distance learning.

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