Distance Learning in Sudan – The Potential and Challenges

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Abstract

Distance learning is one of the results of revaluation of the ICT; it is any type of learning that is enhanced by online electronic communication using the latest information and telecommunication technology (ICT). Sudan has some way to go to benefit from developments in ICT and distance learning. As in many African countries, poor network infrastructure is a main challenge, in addition to lack of awareness and commitment of teachers and institutions. The objective of this research is to explore e-learning issues and open educational applications that are relevant to Sudanese and by and large African context. The project is in its first phase and the author is currently conducting a needs assessment survey of the networks infrastructure in Sudan and distance learning technologies as well as evaluation study on the use of distance education in two sectors, public health and education.

The aim is to investigate the needs of these two sectors and the methods by which we can enhance the process of making new information and knowledge accessible with as high speed as possible. Distance learning is potentially useful in developing countries setting to provide continuous education and training for people in the workforce or for adult education.

Introduction

Distance learning became popular in the 1990s due to the spreading use of the World Wide Web and the concept of knowledge-based economies. Historically, distance learning can be traced back to 18th century, print-base
correspondence study in the US. In the mid 19th century correspondence education started to develop and spread in Europe and the United States. By the late 1960s and early 1970s significant changes in distance learning occurred due to development of new media technologies and delivery systems. The Open University (OU) in Great Britain became the first autonomous institution to offer college degrees through distance education. The OU now uses all possible forms of technology to deliver learning to students.

We can say Distance learning is the delivery of educational services where students are in one location and instructor in another. The Delivery can be through cable or satellite hook-ups, the internet, CD or via an institution's intranet, to get both speed and performance. Distance education potentially enhances the educational level of population to face the challenges of globalization, create new opportunities for employment and address expanding the need for trained human resource in different sectors. In Africa there is a need for utilizing resources to effectively develop and use ICT solutions. There are a lot of previous experiences in different African countries like Sierra Leone and Nigeria, they use many methodologies of the distance learning from corresponding courses, CD-Rom, Internet, TV and world wide web. Table (1) shows Cost and Yield of these methodologies.

One of the African Union objectives is to advance the development of the content by promoting research in all fields, in particular science and technology, and promote cooperation in all fields of human activity to raise the living standards of African peoples.
Overview of Research

Sudan As in many African countries, poor network infrastructure is a main challenge, in addition to lack of awareness and commitment of teachers and institutions. The Sudan Open University is the first initiative in this area. It is prime initial phase of development, depends on printed material, lectures in CD Room, cassette, TV, Radio and new one video conference (between the main center and one state for one time). SOU (Sudan Open University) has electronic library on line and now enrolled 93,000 students since 2003 in (Educational, Administration, Computers colleges). Their future plans include develop a video conference capabilities to enable access to their online library for their students.

The objective of this research is to explore the e-learning issues and open educational applications that are relevant to Sudanese and by and large African Universities. The aim is to investigate the needs of tow sectors, public health and higher education and the methods by which we can enhance the process of making new information and knowledge accessible with as high speed as possible6. In health we need to increase need for real-time communication from actual public health threats making information on best practices readily available health professionals are “knowledge workers,” professionals who interpret and apply information to create and provide “value added” solutions and who make informed recommendations in continuously changing work environments (Winslow and Bramer, 1994). The internet technology is great potential for the lifelong training and education of public health workers. a few countries including India have initiated distance professional health education6. the benefit from using distance learning is including (1) health professional-patient relations, (2) individuals’ exposure to, search for, and use of health information. The future challenge includes provision of qualitative need-based health education and training programs to a variety of heterogeneous clients. Since health sciences deal with life and death and are therefore are more skill-oriented (rather than more knowledge-based), it is felt that providing basic beginning or early training in the field of health may not be feasible through distance learning. Being an innovative and flexible system, and having the ability to respond to emerging training and educational needs, distance education is more appropriate for inservice training of health personnel.

Perspective Case Study
1. SNTP (Sudanese National Tuberculosis Programme). This center in Sudan context many dots under it. The main idea to benefit from distance education in offer good training for their employees and support them with the knowledge and new develop immediately. And make the follow of the information and feedback between the dots of the center and the top management.

2. new experience in adult education, it is vocational training for women. It provide training for the teenagers girls, girls from the lack of higher education, women in prisons and all women who want to have certain occupation, so they can have chances for better income. The vocational training like nursing. The distance learning will wide the chance for many women and make generalize this experience easy for all the states of Sudan.

Telecommunication Issues

The project is in its first phase and the author is currently conducting a needs assessment survey of the networks infrastructure in Sudan and distance learning technologies.

Sudatel company is national and the ISP main which supply the most of Sudan with internet. It offers two types of connection, dial up and DSL. few Organization using Vsat Satellite. All the Sudan states have access to the telephone lines. The project will consider some of solutions from some previous experiences in poor countries or research groups on network problems like FIRST MILE SOLUTION (DakNet) group - India, Sámi Network connectivity Project, and Delay Tolerant Networking Group. These experiences will offers solutions for the small bandwidth and the cost. The other part of this project will be designing a generic package to be used by teachers to provide an electronic front to their courses. This package will avoid the lack of face-to-face interaction and the missing feedback in e_learning. It will include a course Website template; Course Description and material offering existing online resource materials as well as the teacher’s own material (for uploading); and teacher-learner Communication tools. The usability aspect of the produced package is important to suit the target novice user population. This includes issues of consistency of web page layout and design, clear organization and presentation of information, consistency and easy to use navigation. The package will use the same general interface for related courses (same field), this decreases the learning curve for learner.

Conclusion:

Distance learning is potentially useful in a developing country setting to provide continuous education and training for people in the workforce or for adult education. In country like Sudan, education is often limited to those with the capacity to move to larger towns which excludes large sectors of the society such as women and the poor. Even though, the number of higher education institutions has tripled in the last decade; the services offered to students outside the main cities remain inadequate. This work is greatly dependent on support from national telecommunication companies, government bodies and decision makers concerned with education. We will also explore coordinating our work with African initiatives such as the African Virtual University as well as seek support
from international bodies. The economic return of making education widely accessible is a powerful incentive for this work.

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