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Historical development of distance learning has been analyzed from the point of view of the technologies enhancement investigation. Reviewing the main features of each period and conditions of the learning technologies effective application.

Key words: *technologies, interactive communications, correspondence education, e-learning, learners, teachers, educational resources, multiple learning styles, Web-based training.*

Distance learning, structured process in which the student and instructor are separated by time and place, is currently the fastest growing form of domestic and international education. What was once considered a special form of education using nontraditional delivery systems is now becoming an important concept in mainstream education. Due to the rapid development of technology, courses using a variety of media are being delivered to students in various locations in an effort to serve the educational needs of growing populations. In many cases, developments in technology allow distance learning programs to provide specialized courses to students in remote geographic areas with increasing interactivity between student and teacher. In order to understand how research and research issues have developed in distance learning, it is necessary to understand the context of the field. Distance education relies heavily on technologies of delivery. Print materials, broadcast radio, broadcast television, computer conferencing, e-mail, interactive video, satellite telecommunications, and multimedia computer technology are all used to promote student-teacher interaction and provide necessary feedback to the learner at this process. That's why research in the field has focused on the following ways:

- theory of Distance Learning
- technology evaluation
- instruction and learner support

- characteristics of learners
- course design and communications
- issues related to teaching
- policy and management

In part to justify, and in part to explain, the phenomenon, theoreticians like Holmberg, Keegan, and Rumble explored the assumptions of what it is that makes distance education different from traditional education.

Keegan (1986) identifies three historical approaches to the development of a theory of distance education. Theories of autonomy and independence from the 1960s and 1970s, argued by Wedemeyer (1977) and Moore (1973), reflect the essential component of the independence of the learner. Otto Peter's (1971) work on a theory of industrialization in the 1960s reflects the attempt to view the field of distance education as an industrialized form of teaching and learning. The third approach integrates theories of interaction and communication formulated by Badth (1982, 1987), and Daniel and Marquis (1979). Using the postindustrial model, Keegan presents these three approaches to the study and development of the academic discipline of distance education. It is this concept of industrialized, open, nontraditional learning that, Keegan says, will change the practice of education. Wedemeyer (1981) identifies essential elements of independent learning as greater student responsibility, widely available instruction, effective mix of media and methods, adaptation to individual differences, and a wide variety of start, stop, and learn times. Holmberg (1989) calls for foundations of theory construction around the concepts of independence, learning, and teaching.

As we see there is a wide range of researches on the distance learning problem. But the questions as to historical periods of this phenomenon are not carefully analyzed from the point of view of learning technology improvements. So, the purpose of this article is to make a short review of the distance learning history development based on the learning technological progress.

Although the ways in which distance education is implemented differ markedly from country to country, most distance learning programs rely on technologies that are either already in place or are being considered for their cost effectiveness. Such

programs are particularly beneficial for the many people who are not financially, physically, or geographically able to obtain traditional education. That's why in our article Distance Learning will be defined by the following criteria:

- the teacher and students are separated by distance (this distance could mean different classrooms in the same building or different locations thousands of miles apart);
- the instructions is delivered via print, voice, video or computer technologies;
- the communication is interactive in that the teacher receives some feedback from the students. This feedback may be immediate or delayed.

As to the definition of this phenomenon there are many synonyms used, such as Distance Learning, Distance Education, Distributed Learning and Remote Education. Learning is defined as the act, process of experience of gaining knowledge or skills. Education is generally defined as the knowledge or skills obtained or developed by the learning process. Today the term "learning" is more often used than "education". From our point of view one of the best definitions of Distance Learning is the following "Distance Learning is an instructional delivery system that connects learners with educational resources. It provides educational access to learners not enrolled in educational institutions and can augment the learning opportunities of current students. The implementation of Distance Learning is a process that uses available resources and will evolve to incorporate emerging technologies" 1; 56

These main features can find their origins in the distance learning historical development. The pioneers of this system used the best technology of their day, the postal system to open educational opportunities to people who wanted to learn but were not able to attend conventional schools. People who most benefited from such correspondence education included those with physical disabilities, women who were not allowed to enroll in educational institutions open only to men, people who had jobs during normal school hours, and those who lived in remote regions where schools didn't exist. An Englishman, Isaac Pitman is credited as an early pioneer. He began teaching shorthand by correspondence in England in 1840. Students were instructed to copy short passages of the Bible and return them for grading via the penny post system.

The first generation of distance education saw a number of purpose-built distance teaching institutions at the post secondary level: an Institute for Teaching by Correspondence was established in Russia as early as 1850, and a number of correspondence-teaching polytechnic institutes came into existence in the Soviet Union in the 1920s and early 1930s. Other early examples of purpose-built providers of post secondary distant education courses include the Toussaint and Langenscheidt Institute in Berlin. It was established in 1856 as a pioneer in language teaching by correspondence. Swedish Liber Hermods Institute was established in 1898.

In addition to institutions exclusively devoted to distance learning for many years there were universities whose main task was to teach traditional students by traditional means, using lectures, seminars and tutorials. They tried to extend their boundaries to meet the needs of part time students and those of entry normal age who for one reason or another- geographical, social or personal could not study on-campus. The first steps were made by the University of London which from 1858 allowed qualified candidates to be admitted for degree studies without the necessity of following a course of instruction at one of its approved colleges. The logical development was for the university itself to provide tuition to “external” students. The first steps were taken not by the University of London but the universities in the United States, Canada, Australia and subsequently copied by many hundreds of higher education institutions.

A new pattern of distance education was first given in the higher education world by the establishment of the British Open University. Given the subsequent development of open universities in other countries, it is easy to forget how innovative the British Open University seemed at the time. As Cyril Houlihan, Professor of Education at the University of Chicago commented “For some not easily-defined reason, the Open University instantly became a world wide topic of concern ... among both educators and the general public” (Houlihan, 1974:35). The originality of the British Open University lies in the fact that it gave prominence to a second generation of distance education for home based students on the combination of correspondence tuition, face-to face tutorials and the use of broadcast media.

On the other hand, history of distance learning gives full attention to its technological development. As to this aspect, we can notice that the invention of educational radio in the 1920s and advent of television in the 1940s created important new forms of communication. Educators used these new technologies to broadcast educational programs to millions of learners, thus extending learning opportunities beyond the walls of conventional teaching institutions.

The development of reliable long-distance telephone systems in the early 1990s also increased the capacity of distance educators to reach new student population. But telephone systems never played a prominent role in education until the introduction of new teleconferencing technologies in the 1980s and 1990s. Teleconferencing systems made it possible for teachers to talk with, hear and see their students in real time – that is, with no delays in the transmission – even if they were located across the country or around the world. Distance Learning increasingly uses combinations of different technologies to enhance the abilities of teachers and students to communicate with each other.

With the spread of computer – network communications in the 1980s and 1990s large lines, allowing teachers and students to communicate in conferences via computers. Distance Learning also makes use of computer conferencing on the World Wide Web, where teachers and students present text, pictures, audio and occasionally video. File sharing and communications tools like e-mail, chats and conferencing are integral to the Internet model.

Business and university level learners use a conferencing method and television that are transmitted to particular sites where people can reply to the broadcasters with a telephone call-in system. Television pictures can also be transmitted in two directions simultaneously through telephone lines, so that teachers and students in one place can see and hear teachers and students in other places. This is called video-conferencing.

In **conclusion** we may say that the problem of historical development of Distance Learning is in the centre of attention of all modern scientists. It's important to underline that all new advances take their origins in the past. Thanks to the past we can say about the future existing such phenomenon. In general we believe that the

existing distance learning universities will continue to thrive. Many of these institutions will probably continue teaching successfully in the ways they have done in the past. The main emphasis was made on particular cases such as using of print-based independent study materials or on group viewing of broadcast lectures or face to face meeting. One thing is clear: many conventional institutions are now embarking on distance teaching, producing their own flexible open learning materials (print, audio-visual and computer- based) and using new technologies. A significant number of traditional open universities in Europe and elsewhere have started using electronic publishing, computer networking and satellite delivery technologies in ways which might lead to major changes in the distance learning.

References

1. Daniel, J.S. (1987) World Trends in Higher Distance Education and Opportunities for International Cooperation. In: UNESCO, Higher Level Distance Education, Paris: UNESCO Deaking University
2. Harasim, L. (1990) On –line Education – A New Domain. New York: Prager
3. Rekkedal, T. (1983) The Written Assignments in Correspondence Education. Effects of Reducing Turn-around Time. Distance Education. Vol.4 №2, pp.231-52.
4. Kaye, A.R. (1988) Distance Education; The State of the Art. Prospects, Vol.18 №1, pp.43-54
5. Houle, C.O. (1974) The External Degree. San Francisco: Jossey-Bass.

Задорожна Т., Кримська Н. Дистанційне навчання: історичний підхід

Історичний розвиток процесу дистанційного навчання аналізується з точки зору дослідження модернізації навчальних технологій. Розглядаються головні характеристики кожного історичного періоду та умови ефективного використання навчальних технологій.

Ключові слова: технології, інтерактивна комунікація, кореспондентська освіта, електронне навчання, викладач, навчальні ресурси, стилі навчання, Веб-навчання.