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USE OF DISTANCE LEARNING IN THE TRAINING OF PROFESSIONALS IN THE KNOWLEDGE SOCIETY

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***Abstract**: E-learning - is one of the basic, modern forms of teaching today. In the present article will be considered and presented some trends, statistics, examples, most recommended information and educational technologies in distance learning, and also a place for distance learning in the knowledge society and its role in the preparation of today's leading professionals will be mentioned.*

Keywords: distance learning, open education, knowledge society, information technology, educational technology, CLMS MOODLE, today's leading professionals.

INTRODUCTION

E-learning - is one of the basic, modern forms of teaching today. At once more of the online learning institutions offers various options. Most online schools offer degrees in the following and many, many more: *Law, Criminal Justice, Management, Information Systems, Education, Accounting, Psychology, Computer Science, Engineering, etc.* (http://onlinelearningmag.com/maximizing-career-opportunities-online-degree/)

Online learning also offers many different levels of education. From courses offering accreditation in certain areas of the field you already work in to intensive PhD programs, the online degree you desire is available.

A person who begins online learning will also not be left alone with online learning problems. Almost all programs provide access to learned professors and professionals already working in the field that a person would like eventually to enter. Online education offers all the benefits of traditional

institutions without the restrictions. Moreover, each student would take an advantage of group discussions, career guidance and one-to-one help.

The past few years have shown a surge in online education. Simultaneously, it is worth remembering the formal and legal aspects, including the accreditation of institutions offering online education. Today, they are becoming more and more common place. Much of this is due to a rigorous accreditation process that online schools are required to complete. Accreditation ensures that such a school has met established standards to ensure a high level of educational quality. If already a field of study, specialty, degree have been selected and accredited school has been found, one must be prepared for the educational experience which will broaden the horizons as well as a potential future career (http://onlinelearningmag.com/maximizing-career-opportunities-online-degree).

In the present article we will consider and present some trends, statistics, examples, most recommended information and educational technologies in distance learning, and also mention a place for distance learning in the knowledge society and its role in the preparation of today's leading professionals.

1.ROLE AND PLACE OF OPEN AND DISTANCE LEARNING IN A KNOWLEDGE SOCIETY.

The best way to support the above statement is to quote Columbia University professor Eli Noam (1995) who said: "In the past, people came to the information (knowledge, education, *comment-by-author of the article),* which was stored at the university. In the future, the information (knowledge education, *comment-by-author of the article*), will come to the people, wherever they are". This quotation may be supported by another one. "In the past people also came to the teaching, while in future, the teaching also will come to people, wherever they are" (Noam, 1995, UNESCO, 2002). This future happens now.

The concept of "open learning" refers to the aim of opening up education. Lewis (1997) defines open learning as follows: "Open learning has two main thrusts: enhanced student access and the development of student autonomy. These aims are achieved through widening a student choice over aspects of the learning process. The choice may be widened over the time and place of studying and even over the curriculum itself, once access has been gained: choices, for example, of content, pace, method media and assessment. These curriculum choices develop great autonomy: through the structured and

supported exercise of choice in their learning, students work more independently" (p. 3) (UNESCO, 2002, http://www.unesco.org/bpi/pdf/memobpi38_distancelearning_ru.pdf).

The purpose of the UNESCO's project "The knowledge base for open and distance learning in higher education" - to give managers the information and tools to facilitate decision-making and policy development in open and distance education and management. Project is intended primarily to improve the quality of open and distance higher education. In developing countries, the knowledge base is fully met the expectations of the authorities, are increasingly perceiving the open and distance learning as a means to expand access to higher education. The knowledge base has been launched by UNESCO in 2002 and since then it provides information that assists managers in establishing a system of open and distance education and the management service of its institutions. The project has created three regional databases on open and distance learning: for Africa, Asia-Pacific region and the CIS and Baltic countries. Inter-regional decision-support tool involves significant issues of quality assurance of distance education. In 2006-2007 project covered two new regions: the Arab countries and the zone of Latin America and the Caribbean (http://www.unesco.org/bpi/pdf/memobpi38_distancelearning_ru.pdf).

The following factors contribute to and promote the success and rapid development of open and distance education:

- the need to guarantee education throughout life (lifelong learning), constantly expanding access to education and professional training;
- increase opportunities to update knowledge, professional training or self-improvement;
- increase the profitability (rent-ability) of teaching resources;
- improve the quality of existing educational services;
- the promotion of equality of access to education of different age groups;
- more inclusive education in different geographical areas;
- the provision of short-term and effective training courses for certain categories of students;
- development as an interdisciplinary educational potential and for certain individual disciplines,
- the provision of educational services consistent with professional and

family lives of students;

- progress in the field of ICT (Internet, Web) that can increase the number of subjects taught at a distance;
- clear awareness of the importance of education internationally.

Reduce the gap in knowledge. Transition to a knowledge society based on the need to acquire new knowledge and skills throughout life. UNESCO addresses the main challenges of the XXI century education and concentrates all its efforts to promote open and distance education contributes to building a knowledgeable society in the context of learning throughout the life. UNESCO's activities in this area are described in more details in the following (www.unesco.org/bpi/pdf/memobpi38_distancelearning_ru.pdf).

Establishment of open and distance education is the right stage of development and adaptation of education to modern conditions. Its appearance may be explained as need of society in a creative, professionally and spiritually self-developing and self-learner's personality in conditions of transition to a knowledge society, on the other hand – they are considered as territorial, economic and cultural factors. According to experts' assessments, among the best ways to get education of high quality and the most popular form of getting it which had hitherto been considered, was the stationary learning while, the most accessible one, is now open distance learning. Professional competence of professionals who got education in the stationary form, was evaluated as the highest.

Extramural form of education is more oriented towards the preparation of professional-practice. Open and distance learning has many advantages in comparison with a fixed stationary and weekend courses. It relates to the availability, low price, self-sufficiency, flexibility, accessibility, modular character, quality, cost-effectiveness, state-of-the-art technology, large audiences, social balance, global reach, the new role of a teacher, positive effect on a learner and others. In addition to the equal opportunities of education received by different strata of the population, open and distance learning like no other logic of development of the education system and society in general, becomes the most important needs of a particular person. Distance learning actually changes the root of modern educational paradigm from the concept of the physical movement of students from one country to other country to the teaching of the concept of using a mobile remote access to school resources and education (Smyrnova-Trybulska, 2007).

The distance learning gained a special popularity in countries characterized by: *first* - a large territory, the distance of the learner's place of residence from

the place of studying, and *secondly* - the different levels of life, and *thirdly* - a fast-growing economy, the *fourth* - the presence of a high level of unmet demand for services education. Overall, analysis of the contemporary situation regarding distance learning in the world testifies the fact that the development is uneven, from practice to theory. This situation largely determines the partial contradictions and doubts in the eyes of specialists in remote teaching, its status in the system of education. Studying foreign and native literature on this matter shows that there is a mass of experiments in the field of distance education, various programs, projects at the level of higher education, corporate, region, country. In this world there are various models of distance education and training, which have both general and specific characteristics, for example: 1. *Correspondence teaching.* 2. *Across Mass Media (radio - television).* 3. *Across Mass Media (radio - television) with interactive telephone, fax, computer and vision.* 4. *Computer - assisted teaching.* 5. *Teleconference systems.*6. *Across computer net.* 7. *Teaching using videoconferencing systems and video phones* (Juszczyk, 2002); *1.Self-education is regarded as the complete absence of contact between a student and a tutor. 2.Asynchronous teaching. 3.Synchronous teaching. 4. Hybrid teaching (also known as blended learning)* (Juszczyk, 2002, Wenta, 2005, Tanaś, 2005, Mischke, 2005); *1.Integration of the direct (stationary) and distance forms of teaching; 2.Network teaching (The autonomic network courses; The information and education environment.), 3.Network teaching and case - technologies. 4.Distance teaching based on interactive television (Two-Way TV) or the computer video-conference.* (Polat, 2004), others. Currently, the most popular and at the same time, the most promising model is the hybrid model - the *Hybrid teaching* (or *Integration of the direct (stationary) and distance forms of teaching*) (Polat, 2004, Juszczyk, 2002, Mischke, 2005, Tanaś, 2005).

Specification is usually conditioned by socio-economic and socio-cultural characteristics of education systems. It takes into account the technical, scientific, educational, methodical and organizational situation in each of specific educational institution, university, corporation or etc. In this way, open distance learning is considered as a realization of the possibility of a rational combination of measurable educational programs, technologies and forms of learning in order to achieve maximum efficiency of the education process.

Entry point of open and distance learning - understanding the purpose of continuous education of man (Lifelong Learning), ts. the appropriate concept of a continuous human development as a personality-oriented spiritual and ethical values throughout the life; of the continuity of the learning process as

a feature, whose essence is reflected by the categories of unity and direction, heredity and order, flexibility and momentum; of continuous learning as an organizational and pedagogical principle governing interdependence, trade various stages and degrees of education and training of man; of a system of continuous training as the only set of state and non-state educational institutions at different levels and the importance of different institutional and procedural characteristics, together with that characterized the organizational and substantive unity, continuity of correlation, providing an overall everyone a real opportunity to receive and constant improvement of general education and vocational training, spiritual needs, and cognitive, determination and successful transition of its "learning trajectory" (Krasnova, Tavgen, 2005, Smyrnova-Trybulska, 2007).

Open distance education is such a social institution which provides a variety of human services, teaching, allowing him to learn continuously, to ensure receipt of reliable scientific content, assimilation of modern expertise, training the necessary practical skills. Access to a similar system enables each learner to build the trajectory of science, which most fully corresponds to its educational and professional skills, regardless of the location. As a consequence, the interconnected network of educational institutions, which provides educational services to create the space, the relationship of heredity and programs on the basis of which it becomes possible to meet the aspirations and needs of the population. In this way, it creates the possibility of multidimensional mobility specialist in the educational and professional space (Figure 1), its development through education and continuous education and professional advice (Krasnova, Tavgen, 2005, Smyrnova-Trybulska, 2007).

The quality of open learning is secured through the presence of feedback from the teacher learner, and the wide use of interactive teaching. Teaching allows interactive engagement of students in the process of pulling the active acquisition of knowledge. The higher degree of learner activity, the higher quality of learning: the memory remains 10% of what you hear, seen 50% and 90% worked out from long time. Depending on the type of learning new material to varying degrees, the school is understood and remembered by students:

- assimilate the lessons of 5-10% of the material;

- through independent reading of the school literature - 10-20%;

- during a group discussion of school material absorbs up to 50%;

- in the practical application of new material, its degree of ownership of

school close to 75%.

The highest degree of ownership (90%) attained while teaching others.

More precise technologies, methods, forms of distance learning are described in the last chapter of this article.

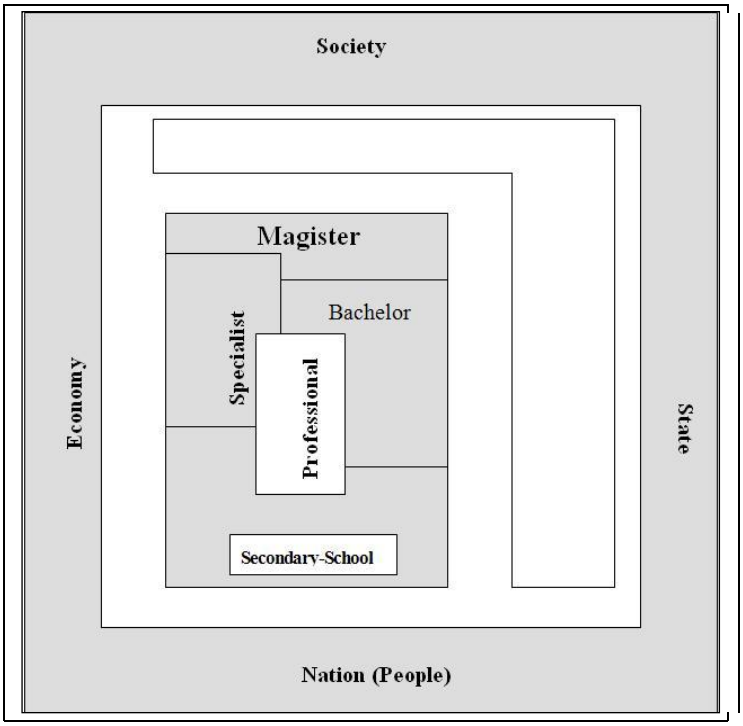

Figure 1. Diagram of the open educational and professional space in the knowledge society.

The implementation of e-learning in the system of open distance education, business-application feedback is implemented through the development and application of new technologies, primarily pedagogical and Internet-technologies, means and methods of teaching (Krasnova, 2003). In this way, after reviewing the relevant features of an open learning system at a given stage, one can say that they are particularly relevant to questions related to the development of training content, methods, forms and technology of learning, and improving the quality of education. Lifelong learning system is currently focused on the solution of tasks a professional - personality of a student, specific types of activities and range of functional responsibilities, that constantly change (Tavgien, 2003, Smyrnova-Trybulska, 2007). Moreover, such a system helps schools, graduates and institutions adapt themselves more effectively in the labor market in the new socio-economic

conditions.

The main lines of regulation and development of distance learning can be identified as follows:

The first direction - carrying out the preparation, raising the qualifications and training of the participants (lecturers, teachers, students) using the technology of distance learning. Application of these technologies will prepare professionals, especially educators, to organize an increase in managerial skills of employees and associates of educational institutions and other organizations, teachers and school methodologists, institutions, employees of enterprises, make the training, refer to the current competent construction materials and formulate practical skills in various objective areas, including professional areas.

The second direction - the application of technology for distance learning in order to provide additional services to students of higher educational institutions. In order to enhance social security of graduates on the labor market, to prepare professionals capable to compete, it is essential to attract students to science through the various stages of additional vocational training programs, which should bring up the conditions of graduates for professional activities. These programs allow students to:

- get the second degree or even the third one in higher education the remote training at another university can be implemented in parallel with the time course in primary education;
- obtain additional qualifications;
- realize an additional learning, a new profession;
- acquire the necessary professional skills, including IT.

As a result, professionals can receive training in the converging fields of knowledge. The combination of receiving further education in obtaining the first higher education offer the possibility of obtaining two diplomas from two directions, provided the organization of classes in a convenient form for students and convenient time. This is done by a system of open distance education appealing to students, shaping them with confidence in its high-quality professional training.

The third direction - further development of the post-secondary education before higher education. Use of modern information and communication technologies can increase the work to a new level of professional orientation of young people by carrying out remote student Olympiad and conferences,

the organization of in-depth study subjects and to prepare students to enter higher education institutions.

In this way, the emergence and development of the open distance learning system - an objective process that runs under the influence of two basic factors - computerization and globalization. Global objective of the system of open distance education is to prepare students for a wholesome and effective participation in social activities and expertise in a knowledge society.

2.DISTANCE LEARNING IN THE UNESCO DOCUMENTS

Much attention of distance learning of higher education in a globalized knowledge society is given in the documents of UNESCO.

A well-known publication **"**Higher Education in a Globalized Society UNESCO Education Position Paper" (UNESCO, 2004) is talking about the *Trends and issues* of development of the Higher Education in a Society.

Particularly, "in the context of globalization and knowledge economies, higher education in its knowledge producing and disseminating function, is recognized as an essential driving force for national development in both developed and developing countries. At the same time, in its universality and international dimensions, higher education can be seen as both an actor and reactor to the phenomenon of globalization (UNESCO, 2004).

The four key elements of globalization relevant to this discussion are: the growing importance of the knowledge society/economy; the development of new trade agreements which cover; trade in education services; the innovations related to ICTs; and the emphasis on the role of the market and the market economy (UNESCO, 2004).

These factors in turn have been the catalysts for new developments in higher education including: *i*) the emergence of new education providers such as multi-national companies, corporate universities, and media companies; *ii*) *new forms of delivering education including distance, virtual and new face-to-face, such as private companies***;** *iii*) greater diversification of qualifications and certificates; *iv*) increasing mobility of students, programs, providers and projects across national borders; *v*) more emphasis on lifelong learning which in turn increases the demand for post-secondary education; and *vi*) the increasing amount of private investment in the provision of higher education. These developments have important implications for higher education in terms of quality, access, diversity and funding (UNESCO, 2004).

To be responsive to new developments in higher education provision, the *Study Abroad* publication, a key resource of UNESCO to promote student mobility, needs to address new forms of learning, and new types of learners. The need for effective student's input in this publication was stressed. The publication will be revised to include courses offered through open and distance learning. In addition, it will include a guide for potential learners multiple entry points and diversity of learning (e.g. age, culture, geography, needs). For the first time, all key information provided in this publication will be provided free of charge on the UNESCO website, including access to the database. Finally, in view of the need expressed for greater information on new developments, the need for an electronic space to share information on activities of the Global Forum was identified (UNESCO, 2004).

An important consideration of distance education in developing the concept of higher education is assigned to "World Declaration on Higher Education for the Twenty-first Century: Vision and Action and Framework for Priority Action for Change and Development in Higher Education": (Paris, 1998). In particular, the Article 8. *"Diversification for enhanced equity of opportunity"* (Paris, 1998) says: (a) Diversifying higher education models and recruitment methods and criteria is essential both to meet increasing international demand and to provide access to various delivery modes and to extend access to an ever-wider public, in a lifelong perspective, based on flexible entry and exit points to and from the system of higher education. (b) More diversified systems of higher education are characterized by new types of tertiary institutions: public, private and non-profit institutions, amongst others. Institutions should be able to offer a wide variety of education and training opportunities: traditional degrees, short courses, part-time study, flexible schedules, modularized courses, supported learning at a distance, etc. (Paris, 1998).

Also, the Article 12. *"The potential and the challenge of technology"* (Paris, 1998) says: "Creating new learning environments, ranging from *distance education* facilities to complete virtual higher education institutions and systems, capable of bridging distances and developing high-quality systems of education, thus serving social and economic advancement and democratization as well as other relevant priorities of society, while ensuring that these virtual education facilities, based on regional, continental or global networks, function in a way that respects cultural and social identities". (World Declaration on Higher Education … (Paris, 1998)).

3. SOME STATISTICS FOR STUDIES ON-LINE

The statistical data on the scale of online learning in different countries vary over time. Simultaneously, four characteristics which affect the scale of deployment and popularity of distance learning are described in the previous chapter. Notwithstanding some discrepancies in the statistics one can conclude that regardless of some discrepancy in the forefront of countries with a developed system of distance learning are the United States, Australia, Canada, most European countries, Russia and some others. Available statistics illustrate the rapid increase in the scale of development and proliferation of distance learning in Europe and around the world.

The publication (Allen, Seaman, 2008) represents the sixth annual report on the state of online learning in U.S. higher education. In particular, the online enrollments have continued to grow at rates far in excess of the total higher education student population, with the most recent data demonstrating no signs of slowing: 1) Over 3.9 million students were taking at least one online course during the fall 2007 term; a 12 percent increase over the number reported the previous year. 2) The 12.9 percent growth rate for online enrollments far exceeds the 1.2 percent growth of the overall higher education student population. 3) Over twenty percent of all U.S. higher education students were taking at least one online course in the fall of 2007 (Allen, Seaman, 2008). More detailed information about online education in USA could see in Allen E., Seaman J., (2008) *Staying the Course*, Online Education in the United States.

The report from the analysts of IBIS World organization says that online education is growing rapidly in Australia. Australia has 39 Universities, virtually all of them offer studying at a distance. Number of students eager to choose distance learning from year to year becomes bigger of what once was. It was estimated that it could increase by 24.3% over the next 12 months, which is two times faster than in any other industry (http://www.study-in-australia.org).

Such a development is the result of a combination of several key factors: the increase in acceptance of online education as a valuable alternative to traditional teaching face-to-face, intensive use of broadband Internet services, improved resources and teaching methods (so-called real-time lecturing, pod-casts, web-cams, virtual laboratories) and the economic slowdown. The biggest advantage of the sector, however, is convenience: the ability to learn at any time and place.

Since its foundation in 1993, more than 120,000 people studying in the OUA.

Last year the number exceeded 28,000 OUA graduates, an increase of 12% compared with mid last year. This year, registration for the first cycle increased by 22.5%, and the second cycle of 27%. Open Universities Australia (OUA), which are owned University Curtin, Griffith, Macquarie, Monash, RMIT, Swinburne and the University of South Australia, Australia's largest provider of higher education in the form online. Online learning is an alternative education for those who have crossed the age of university standard (18 to 25 years). Stuart Hamilton says that most OUA students are people with age range 25-39 years, and almost 70% are women. But he adds that also have 18-year-olds and 60-year-olds (and older!) (http://www.study-in-australia.org).

Employers in Spain are interested where he earned a diploma only. That's how it's not asked. At 1.4 million new students entered, almost 200 000 online studies began (Borowski, 2010).

This is over 10,500 more than five years ago, gives the Spanish daily "El País". Ever-growing number of students opting to study via the Internet, is linked to the proliferation of newer and newer technologies, and still giving of himself to forget the crisis.

The issue price for studios are not the most important thing here. This is the same for virtual studies, as well as traditional. Lecturers UNED (Universidad Nacional de Educación a Distancia), which take 60 000 virtual students each year, argue that because of the crisis more and more people realize the need for professional development. Surviving in the labor market requires continuous development of their competence in all directions. Online mode of study allows for simultaneous learning and work. While the programs of study do not differ from the traditional and the requirements are less, or for some, not for others (Borowski, 2010).

The main western universities most actively implementing distance learning are: University in Michigan (USA), University in Maryland (USA), University in Sydney (Australia), Open Universities (Australia), Curtin University (Australia), Open University in London (Grate Britain), Open University (Spain), University in Hagen (Germany), University in Ostrava (Czech Republic) and others. Now about 80 % of European and American universities to a large extent apply distance forms of learning.

According to data of analytical tests carried out by UNESCO, 8 million people in Russia wanted to receive an education or improve their skills remotely, similarly volunteers in Kazakhstan about 800 thousand people. In Ukraine there were 2.5 million people (Polat, 2006).

Among the Russian universities offering distance learning are: Moscow Institute of Steel and Alloys, Moscow State University, Krasnoyarsk State University, Institute of Radio and Electronics in Taganrog, Novosibirsk State University and others. According to UNESCO data, Russia has 200 universities offering distance learning (Polat, 2006).

Among the Ukrainian universities offering distance learning are: Kiev Academy of Technology, National Pedagogical University name M.P. Dragomanow, Kherson State University, Kharkov Academy of Technology, National University of Kyiv-Mohyla Academy and others.

In Poland, studies on the Internet is still in its infancy, although the university continues to grow and widen the choice. Universities and academies in Poland have prepared a platform for studying using the Internet. It is Polish Virtual University - a joint venture of the Academy of Humanities and Economics in Lodz and the University of Maria Curie Sklodowska University in Lublin.

Studies of first and second degree are offered in education, political issues, science and in administration. Such a virtual educational offer is an excellent solution for busy people, for mothers raising small children and invalids. Virtual students have the same rights as traditional students: They receive student's ID; enjoy all the discounts for students and are eligible for student's loans. In spite of that studying online is still not too popular in Poland. Nevertheless, the situation has been changing. The Internet continues to dominate post-graduate studies and specialization courses. Social issues are also included into consideration.

There are some mere stereotypes describing "distance" students, as students in default who receive inferior education. That is why the PVU in its brochure endorsement adds that the traditional graduates receive diplomas of the Academy of Humanities and Economics in Lodz, without any supporting scientific information over the Internet. It seems that in application for employment in the west, such information on graduation would not be a reason for the complexes, on the contrary - given a certificate of determination, versatility and self-discipline. One of the reasons hampering the dissemination of study are issues which are not fully regulated by formal-legal system (Borowski, 2010).

Although the June 10, 2008 was adopted Decree of the Ministry of Science and Higher Education, for the matter what conditions must be met to enable to conduct teaching activities at this studies with the use of methods and techniques of distance education (Journal of Laws No. 90, item. 551), the

number of hours of classes for full-time and part-time, offering the use of methods and techniques of distance education, cannot be greater than 60% of the total number of hours of classes defined in the standards of training for various disciplines and levels of education, with the exception of practical classes and laboratory. At the same time the classes remotely, satisfying the conditions described in the Regulation, may be regarded as equivalent to the occupations, conducted in the conventional mode. A more profound analysis, and formal and legal aspects related to education on-line in Poland and abroad - that is the subject of another, separate article.

Among of the Polish universities, which implement distance learning one may enumerate: University of Warsaw, University of Silesia (Katowice), Academy of Mining and Metallurgy (Cracow), Polish Virtual University in Lublin, Gdansk University of Technology, others.

4. LIFELONG LEARNING AND E-LEARNING

One of the most important educational challenges which is present practically in all European countries is the creation and development of a system of «education functional and effective during all life» (LLL - Life Long Learning). It is mentioned in the Bologna Declaration to which Poland is a signatory.

Therefore one can confirm that at present high technologies and knowledge societies play an important part in human life; our times are both marked by increased levels of activity in old age and accompanied by active efforts to keep knowledge up to date. Besides, social processes are taking place faster than before.

Simultaneously, there are now a rich variety of Information and Communication Technology (ICT) tools, which can potentially be used in innovative ways to support learning, providing the opportunity for students to take control of, and personalize their learning. Coupled with this there has been a fundamental shift in the nature of society; the world in which we live is dramatically different from that of our grandparents. As a result, the nature and purpose of education has changed; in part in response to the changing nature of society and in part given the changing perspective on what education in a modern context is for (Gráinne, 2006, Smyrnova-Trybulska, 2010).

5. ON SOME TECHNOLOGIES THAT ARE RECOMMENDED FOR USE IN E-LEARNING

In the context of developing a coordinated strategy for the successful implementation and use of e-learning in the preparation of specialists in a knowledge society worth mentioning is the first aspect of the use of appropriate information and educational technology.

5.1. Some informational technologies in distance learning

Nowadays it would be hard to come across higher education institutions (faculty), schools, kindergartens, vocational training institutions, teacher training centers or other educational institutions that do not maintain their own website. More and more educational institutions are launching distance learning systems or components in response to the needs of both learners and teachers. The implementation of distance learning is being facilitated by increasing availability of information tools and means which, in turn, are being developed as a result of advances in information and communication technologies, and particularly web-based technologies. All of these developments have contributed to the emergence of multifunctional, quite reliable, user-friendly distance learning tools (Smyrnova-Trybulska, 2009).

These include more advanced tools such as content learning management systems (CLMS's), including open source systems (MOODLE, Claroline, Dokeos, Atutor and other systems) supporting practically all phases of the learning process as well as content management systems CMS (e.g. Mambo, Joomla!, Drupal, Nuke PHP Apache), enabling users to quick launch vertical portals such as educational portals, featuring various services, including those with return email links but requiring initial configuration and subsequent maintenance by an IT specialist. Solutions developed using Web 2.0 technology (Blogs, Forum, Wiki, Chat, WWW, RSS, CSS projects, open repositories of audio and video materials, and pod-casting and other forms of social software etc.) are also available; they can be used by all users, including those without any special IT training. Web 2.0 is not a new worldwide web or the Internet; it is a new method for using the Internet's existing resources. Web 2.0 is the informal designation of Internet sites and services launched after 2001 which primarily rely on the content generated by users visiting the site or service. Web 2.0 was designed to facilitate interactive information sharing, to enable Internet users to use personalized web pages. Generally, websites have become more user-centered. It is hard to overestimate the importance of CLMS systems and Web 2.0. services in efforts aimed at achieving educational goals nowadays as the underlying principle of education is shifting towards personal-oriented education,

focusing on the learner and on the development of the learner's mental faculties, creative abilities, personal qualities as well as the ability to think creatively and critically. The most popular and fast-developing MOODLE system, based on tenets of social constructionism and the concept of micro-worlds (enabling learners to explore course environments), implemented by Jean Piaget and Seymour Papert, has yet to realize its broad educational potential. Thanks to its open code and broad spectrum of resources offered, MOODLE can be flexibly developed, adapted and modified to meet the various needs of learners, teachers and educational institutions (Smyrnova-Trybulska, 2009).

5.2. Some educational technologies in distance learning

Analyzing educational technologies, the most recommended for use in distance learning systems, in particular using MOODLE system, are the following technologies:

- *Technology of the personality oriented teaching*.
- *Teaching in cooperation* (cooperative learning);
- *Technology of diverse teaching*;
- *Taking into account and apply the principle of individual approach*;
- *Technology immersion in the subject environment*, based on the theory of constructionism (Piaget, Papert), in the design and organization of distance learning;
- *Technology fully assimilate in the organization of distance learning* (Smyrnova-Trybulska, 2007).
- More details we analyze thanks to the *certain principles of technology of personality oriented teaching.*

Interesting location and concentration of ideas in the field of humanistic pedagogy personality oriented teaching is manifested in a number of principles formulated by Van Parreren that can be successfully adapted in distance learning, for instance in the distance course in MOODLE system (Levites, 2003, Smyrnova-Trybulska, 2007):

Principle 1: Raise students' motivation for continuing educational activities, it can be based on personal experience of students (for example, such a motivation can be fixed, targeted use of ICT in the teaching process and remote forms of teaching and emphasis on self-education, timeliness and acquired desire competence in the field of IT in the future teaching and

professional activities).

Principle 2: Learning dialogue, ts. in cooperation with the learners and not in accordance with the principle of "top down" (This principle can be successfully implemented not only in traditional teaching, but also in the remote after the application of various tools for synchronous and asynchronous dialogue: Chat, Forum, e-mail, Skype, Yahoo Messager, ICQ, internal messaging systems in distance learning systems, for instance in MOODLE, and others).

Principle 3: Teach diagnostically: a continuous follow the progress of students is required, improve and support if necessary (for example, in the CLMS MOODLE using a variety of instruments for monitoring the performance of pupils and their activity: log (input to the system), activity, assessment et al., this principle can be implemented successfully.)

Principle 4: Separate the contents of the teaching parts and tasks. This approach should be varied for different categories of students to ensure a fully-oriented basis for various categories of students and to transform the structure of their school motivation (or cognitive interests). For example, the distance course is modular, hierarchical structure, composed of various units, components, resources, allowing for flexible working and provides a differentiated approach to students.

Principle 5: Provide for the school content (action - trainee model: objectively oriented; personality oriented) *at various levels* (physical, perceptual, mental (J. Galperin)). This is necessary to ensure that the process interiorization proceeded as efficiently as possible. This principle is successfully implementing the distance learning systems used by various components of distance courses (lesson, quiz, forums, task, etc..). Multimedia materials and different tools to interact *with students, teachers and students among themselves. The* access to these course components is usually temporarily unrestricted, what can assure favourably the passage of the interiorization process.

Principle 6: Learning in the appropriate *pace, using appropriate means and tools (computer,* telecommunications, electronic textbooks, multimedia, educational programs, remote online courses and others.) or *media* (e.g., oral speech, literate speech, model, graphic, symbols, audio-recording, video, etc.). All these measures, tools, media may be available in distance teaching (including the use of CLMS MOODLE).

Principle 7: Teach and assist students at their actual capacity (for example: a set of communicative and mental actions and their way of life conversion

experience) and not at the level of the external characteristics of the responses of students in the performance of school tasks. Van Parreren opposes the mechanical memorization of facts unrelated to evaluate the progress of students on the basis of an informed treatment of any conceivable inventories (the notion of content generalization by W.W.Dawydow). This principle can be successfully assisted by the application of artificial intelligence elements in the system CLMS MOODLE, for example, available in the lessons and other components of the distance learning course (of course, in appropriately designed methodology course).

Principle 8: The capacity for reflection and evaluation by the students themselves of their additional progress (sense of competence). In this context, Van Parreren puts an unusual proposal, which lies in the fact that the adopted grading system changed to a set of assessment criteria, developed jointly by students and teacher (Amonashwili). According to Van Parreren proposed scheme does not replace, and complements the system tables (Montessori). The distance learning system MOODLE can create their systems of assessment (in degrees, points, percentages, descriptive, etc., this time with the students, and when assessing how students are learned, or in the performance of individual tasks, tests, their knee-jerk response), conduct joint discussions about the merits of the forum, virtual workshops, etc.

Principle 9: Provides a set of tasks for the group before that, as students will work independently. Help is needed, therefore, to avoid the "rigidity" of actions, speech, thought (in the system MOODLE all tasks are first developed by the teacher and then placed in a course, time access to them is regulated by the teacher and may be limited (for example, shortly before activities or unlimited)), by e-mail, sending the forums and other means of communication. Tasks can also be sent to the appropriate pre-e-mail address of the learners in order to per-acquainted with them.

Principle 10: To stimulate the initiative and creativity of learners in order to manage the content in question far deeper than the traditional methodology (Creative tasks, project method and others. Are successfully carried out primarily with the use of IT and remote forms of teaching).

Principle 11: Favour the real formation of subjectivity, which is precisely the positive attitude to learning subjects and particularly in the self-determination, responsibility, autonomy in relation to cognitive activity. A properly designed remote course (for example, in the MOODLE system) can successfully provide a friendly, stress-free atmosphere of learning for every student without pressing from the teacher and other students and create a positive attitude toward learning the subjects.

Principle 12: Provide for the climate conditions in the auditorium, leading to the development of integrated social-personality students. The components of the system MOODLE fill the opportunity to work individually as well as a team, the implementation of joint projects, tasks, contact us at the time working and learning, thus providing conditions for the climate in the audience, leading to the development of integrated social-personality students.

6. EXAMPLES FROM OUR EXPERIENCE

The aims, conception as well as the methodology of implementation the e-learning on University of Silesia (US) as well as the activity of Distance Learning Centre of US became exactly and respective described in the article (Widła, Mrocheń, Półtorak, 2009). One of first and the most actively functioning of distance learning platforms on US is the platform of Faculty of Ethnology and Sciences of Education in Cieszyn (http://el2.us.edu.pl/weinoe). Most of the technology described in the previous section is successfully used in the implementation and duration of training future teachers and active at the Faculty of Ethnology and Sciences of Education in Cieszyn using distance learning platform, based on the MOODLE system. Aims and examples of distance learning platform for Faculty of Ethnology and Sciences of Education in University of Silesia were more fully described in the previous articles of the author (Smyrnova-Trybulska, 2009, 2010), in order to:

1) provide pedagogical support for teaching programme courses, run in the full-time and part-time mode (hybrid learning),
2) train future teachers in distance learning – to use e-learning in own profession and to act as tutors,
3) help teaching staff as well as graduate and post-graduate students to carry out scientific research and pedagogical experiments,
4) provide access to educational materials for students and other users,
5) foster international cooperation, in particular, through international projects.

One of the examples of projects in area of e-learning is a project ”E-learning – as a Road to the Communication in a Multicultural Environment”, which was coordinated by the author of the article. International educational project supported financially by International Visegrad Funds (IVF) ”E-learning – as a Road to the Communication in a Multicultural Environment” (No

10920089), implemented in collaboration with University of Ostrava (Czech Republic), Matej Bel University in Bańska Bystrica (Slovak Republic), project be realized from 01.08.2009 to 28.02.2010 and has been successfully completed. The aim of the project has been to address the problem of fostering close cooperation and strengthening relationships between the Czech Republic, Poland and Slovakia. In particular, the project was designed to promote regional cooperation among Visegrad countries through support for research and educational projects as well as through e-learning and LLL programmes, conferences, workshops, and the development of regional educational environments as well as training of teachers in the field of ICT and E-learning (http://weinoe.us.edu.pl/projekt-miedzynarodowy-e-learning-droga-do-porozumiewania-sie-w-srodowisku-wielokulturowym, Smyrnova-Trybulska, 2010).

In the context of the article topic, I would like to give some results of surveys conducted at the end of one of the e-learning courses - "MS Word and its possibilities" from the subject of Information Technology by students of pedagogy (Figure 2, Figure 3, Figure 4). This course was one of the three in which the prospective teachers took part in course of realization Information Technology subject Programme (generally there are more than 40 distance courses available on the faculty platform). The surveys were reflective in nature while the evaluation related to the students' opinion about the course and their assessment in terms of substantive, methodological, technological, organizational, and e-learning as technology, methods and forms of learning.

One hundred eighty two students participated in anonymous surveys. Below some results of several surveys are presented. They show strongly positive views of students about the course, about their achievements as regards the subjects of the distance course as well as e-learning effectiveness. Comments are minor, having no conceptual character and of course, will be considered when updating the distance course. Similar positive results were obtained at the time of questioning students at the end of Excel and Power Point Courses. It embodies the hopes that we are moving in the right direction and adjust to demands and expectations of students, making the requirements at once more ambitious, sophisticated and advanced.

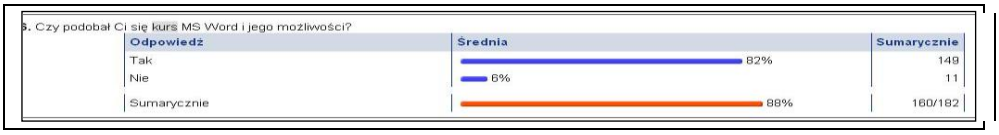

Figure 2. Responses to a question: "Do you like the course "MS Word and its possibilities"?

Figure 3. Responses to a question: "I learn how to improve my professional practice".

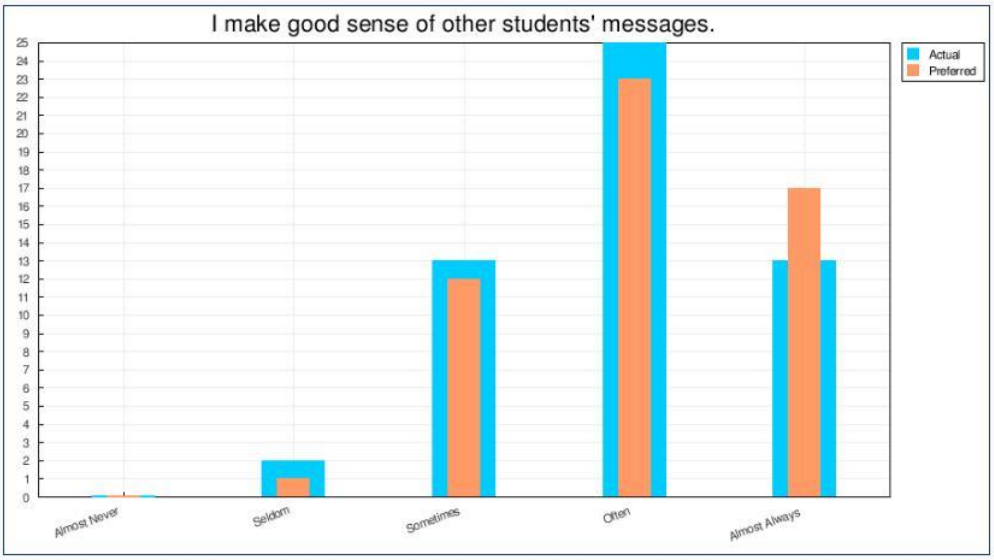

Figure 4. Responses to a question: "I make good sense of other students' messages."

Meantime problems and challenges are to be resolved, inter alia:

- Preparation of academic staff in e-learning;
- Time-consuming in the development of remote courses,

- Frequent, time-consuming and laborious updating of the IT courses (it is difficult to keep up with emerging new versions of software (MS Office 2000, 2003, 2007, 2010, et**c.),** so it is worth concentrating more on developing generic skills in students;
- Regular and systematic implementation of new multimedia technologies, the development of "smart" tutorials;
- Updated version of CLMS (such as MOODLE), (in the case of universities, including deals with the technical platform administrator);
- Reliability, speed and performance of Internet connections and the cost of Internet access (which is sometimes less current, but the problem still exists, especially for users);
- And many others.

CONCLUSION

Described and presented in the article surveillance and analysis of existing expertise in the country and abroad in the use of e-learning to prepare professionals to deal with the knowledge society, years of own experience regardless of the number of still existing problems and challenges convince the users that it is difficult to find alternative education for distance in today's rapidly growing knowledge-based society, which requires some trained personnel who quickly update their knowledge and skills, steadily expanding and upgrading their skills, possessing universal competence as well as specific professional skills, habits of cooperation in a team (including the conditions of globalization, in an international team on the Internet), communicating in foreign languages, etc. To sum up one should say that only international cooperation, joint projects, exchange of experience in Europe and the world in theoretical and practical aspects of distance learning make it possible create an efficient, optimal strategy for the implementation of e-learning which should be continuously improved and adapted to one's needs.

REFERENCES

Allen E., Seaman J., *Staying the Course*, Online Education in the United States, 2008. ISBN 978-1-934505-07-6

Borowski M. *Studia online – Hiszpania uczy się przez Internet*,

http://www.twojaeuropa.pl/1966/studia-online---hiszpania-uczy-sie-przez-internet (date of access 15.08.2010)

Higher Education in a Globalized Society, UNESCO Education Position Paper, 2004 http://dstudy.ru/?page=7564b832-d976-4f71-b576-2b9df4e93df3&item=9c4a0861-589b-4b9c-9cba-ae76391f20b0&type=page (date of access 15.08.2010)

Information and Communication Technologies in Distance Education, Specialized Training Course, UNESCO, Moscow, 2006 (rus.) ISBN 5-902116-18-X http://www.iite.ru/publications/themes/distance_ed/ (date of access 10.08.2010)

Information and Communication Technologies in Distance Education, Specialized Training Course, Co-ordinating Editor: Michael G. Moore, UNESCO, 2002 http://www.iite.ru/pics/publications/files/3214600.pdf (date of access 16.08.2010)

Juszczyk S. *Edukacja na odległość: kodyfikacja pojęć, reguł i procesów* / Stanisław Juszczyk. - Toruń : Wydaw. Adam Marszałek, 2002. – 241 s. ISBN-837322-291-X

Krasnova, G.A. *Open Education: civilizational approaches and perspectives*. - M.: Publishing House of People's Friendship University, 2002. - 252 P. (rus.) ISBN 5-209-01438-x

Krasnova, G.A., Tavgen I.A. *Resources Informatization. The role and place of open education in the information society.* / Pedagogical computer science. - 2005 - № 3 .- PP. 51-55. (rus.) ISSN 2070-9013

Laurie R., *How Will Online Courses Weather the Economic Downturn?* eLearn Magazine, http://www.elearnmag.org/subpage.cfm? section=best_ practices&article=52-1 (date of access 10.08.2010)

Lewis, R. (1997). *Open Learning in Higher Education. The entity from which ERIC acquires the content, including journal, organization, and conference names, or by means of online submission from the author*. Open Learning, v12 n3 p3-13 Nov 1997, ISSN-0268-0513

Levites D.G. Autodidactics. *Theory and practice of designing their own technology training.* Moscow-Voronezh: Moscow Psychological and Social Institute, 2003. - 320 pp. (rus.) ISBN 5-89502-496-3.

Noam, E. (1995). *Electronics and the Dim Future of the University.* Science, Vol. 270, PP. 247-249, October 13, 1995.

On-line education. Study in Australia - world wide. http://www.study-in-

australia.org/poland/online-education/ (date of access 10.08.2010)

Pedagogical Technologies Of Distance Teaching: Teacher Book For University Students / [Polat E.S., M.V.Moiseeva, A.E.Petrov, and others.]; ed. Polat E.S., M.: Publishing center «Academy», - 2006, 400 P. (rus.) ISBN 5-7695-2241-0

Pedagogika @ środki informatyczne i media. Pod red. Macieja Tanasia. Oficyna wydawnicza Impuls, Kraków, 2005, ISBN 83-7308-595-5

Shchennikov S.A. *Open distance education.* - M: Nauka, 2002. – 527 s. (rus.) ISBN 5-02-006293-6

Smyrnova-Trybulska E. *About Some basic Aspects of Distance Learning* [in:] Theoretical and practical aspects of distance learning, Sc. editor, E. Smyrnova-Trybulska, Collection of Scholarly Paper, University of Silesia, Cieszyn, 2009. PP.13-35, ISBN 978-83-925281-4-2

Smyrnova-Trybulska E. *Use of the Distance Learning Platform of the Faculty of Ethnology and Sciences of Education in Cieszyn (University of Silesia in Katowice) in the Teachers Training*. [in:] Theoretical and practical aspects of distance learning, Sc. editor, E. Smyrnova-Trybulska, Collection of Scholarly Paper, University of Silesia, Cieszyn, 2009, PP. 198-210. ISBN 978-83-925281-4-2

Smyrnova-Trybulska E.: Basics *of creative informatics competence teacher's training in area of distance learning.* Monograph, Kherson: Publishing house "Aylant", 2007. - 704 P. (rus.) ISBN 966-630-040-1

Smyrnova-Trybulska E.: *The International educational Project "E-learning – as a Road to the Communication in a Multicultural Environment".* [in:] Information and Communication Technology in Education 2010, Ed.: Jana Kapounova, Proceeding, Ostrava-Roznov, 2010, PP. 161-164. ISBN 978-80-7368-775-5

Tavgen I.A. *Distance Learning in Open Continuing Education* / People education. - 2005. - №5. ISSN: 0130-6979

Theory and practice of distance learning: teacher book for university students/ [E.S.Polat, M.Y.Bucharkina, M.V.Moisiejeva and others; Ed. E.S.Polat, Moskow: «Academy», - 2004.–416 P. (rus.), ISBN 5-7695-1533-3

Widła, H., Mrochen, I., Półtorak, E., (2009) : *Gradual development of education with the use of the methods and techniques of distance learning:* [in:] Theoretical and Practical Aspects *of* Distance Learning Sc. editor : Eugenia Smyrnova-Trybulska, Cieszyn, PP. 45-59

World Declaration on Higher Education for the Twenty-first Century: Vision and Action and Framework for Priority Action for Change and Development in Higher Education: (Paris, 1998), http://unesdoc.unesco.org/images/0014/001419/141952e.pdf (date of access 10.08.2010)

http://el2.us.edu.pl/weinoe - Distance learning platform of the Faculty of Ethnology and Sciences of Education in Cieszyn, University of Silesia in Katowice (date of access 10.08.2010)

http://onlinelearningmag.com/maximizing-career-opportunities-online-degree/ (date of access 10.08.2010)

http://www.efquel.org/ - European Foundation for Quality in E-Learning (date of access 10.08.2010)

http://www.studiaonline.info/serwis.php?s=1456 - Home Data University Courses on the Internet (date of access 10.08.2010)

http://weinoe.us.edu.pl/projekt-miedzynarodowy-e-learning-droga-do-porozumiewania-sie-w-srodowisku-wielokulturowym - Home web-site of the International project "E-learning – as a Road to the Communication in a Multicultural Environment" (date of access 10.08.2010)