THE ROLE OF THE INTERNET IN SELF-STUDY

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Abstract. *The concepts of teaching, learning and self-education are the most essential aspects in the processes of preparing employees for knowledge economy as well as in the processes of developing and improving skills required not only at work, but also in personal life.The Internet constitutes an essential link in educationasa basic form of teaching and a supplementary element not only in the traditional model of instruction, but also in self-education. The following article presents questions concerning self-education and the Internet as a place and technique of self-education, as well as the concept of e-learning as a modern form of distance education.*

Keywords: *e-learning, Internet, self-education.*

Introduction

Technological progress, the changing conditions of life as well as the fast pace at which knowledge acquired in the past becomes outdated are the main causes prompting people to undertake various forms of additional training, updating their knowledge and qualifications in order to adapt to the changing world and be able to function well in it. One of such forms of training is self-education.

The Internet has created a new dimension of studying. On a much larger scale than ever before, it has enabled us the access to vast information resources, as well as tools facilitating the search for specific know-how and communication in order to broaden our knowledge and raise our qualifications. The Internet is perceived as an optimal environment for self-education, which enables pursuit of all the set objectives of the education process, but most of all, it allows everyone to access the most recent knowledge in a fast, easy and cheap way. The main problem is identification of factors that determine the positive attitude of a person to their own development through self-education.

The aim of the article is to present the main objectives of self-education and factors that determine the success of this form of education as well as to analyse self-study methods based on the immense possibilities offered by the Internet.

Lifelong learning and self-education

Lifelong learning is a key challenge of the 21st century, constituting both the result of active citizenship and a prerequisite for complete participation in the life of the society. Everyone wishing to adjust to a modern way of living and work efficiently must regularly raise their qualifications. One of the ways to

achieve that is through lifelong learning. During the European Council meeting in Lisbon in the year 2000, the Council admittedthat the European Union is currently facing fundamental changesas a result of the processes of globalization and development of knowledge economy, and that those changes do not only require radical transformation of the European economy, but also an ambitious plan of modernizing the systems of education. In its conclusions, the Council of the European Union emphasized that: Education is more than just a factor offering a chance for employment, but also by preparing to a professional career, it contributes to the sense of self-fulfillment, as well as shapes an attitude ofactive citizenship in democratic societies, in which cultural and language versatility is respected. The European Parliament Resolution of 16 January 2008 on adult learning: *It is never too late to learn*, urges Member States to promote the acquisition of knowledge and to develop a culture of lifelong learning. The *Europe 2020* strategy for smart, sustainable and inclusive growth acknowledges lifelong learning and skills development as key elements in response to the current economic crisis, to demographic ageing and to the broader economic and social strategy of the European Union[13].

Education also plays a crucial role in creating an integrated society, preventing discrimination, marginalization, racism and xenophobia, as well as promotes such fundamental values cherished by European societies as tolerance and respect for human rights (Frąckowiak & Półturzycki, 2010).

Development of knowledge economy, information society and the so-called digital economy are the goals considered as priorities in a few official documents and declarations of the EU leaders. Implementation of those objectives requires continuous development of every person in addition to their lifelong learning. Maintaining continuity and regularity of the learning process, as the basic principle of lifelong learning, on the one hand ensures constant development, on the other, prevents the acquired knowledge from becoming outdated. The present-day labor market is characterized by constantly increasing requirements regarding employee qualifications, challenging an individual to continuously raise them and even change a job during the period of professional activity (Błędowski & Nowakowska, 2010).

Permanent education, whetherthrough studying under someone's supervision, inspired self-education or self-study on one's own initiative, is becoming not only a necessity, but also a need.

Participation in adult learning has continued to fall, from 9,8% of the 25-64 year-old population in 2005 to 9,1% in 2010, thus making the increased 'ET2020' target of 15% by 2020 is a great challenge[1].

An analysis of participation in the so-called further training,as per various forms of education, conducted in 2009 by the Central Statistical Office of Poland (GUS) indicates that every twentieth person aged 25-64 (1141 thousand;

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[13] Official Journal of the European Union 2011/C 372/1, *Council Resolution on renewed European agenda for adult learning*

5.5%) continued learningin the "school" system (formal education) in Poland, whereas more than every fifth person (3829 thousand; 18.6%) improved their skills and knowledge on various courses and training activities (non-formal education). The biggest number of people took part in informal education, defined as self-education without a teacher's help (5247 thousand, i.e. 25.4% of the surveyed population aged 25-64)[14].

The essence of self-education is independent learning which involves mainly one's own efforts put to update a person's knowledge and broaden it. Self-education is a learning system resulting from establishment of one's own educational goals, covering a set of activities and measures subject-oriented and organized, based on the processes of orientation, conclusion drawing or decision-making in executive processes, which contribute to self-development of an individual.

The changing world makes us perceive the role of self-education as a necessary element which enables an individual to better understand globalization and civilization changes. In today's world self-education should become one of the most popular indicators of human capital, which determines economic, political and development success (Smak & Widelak, 2006). Self-education achieves an optimal level when it turns into a constant human need as a principle of lifelong learning.

Many scientific disciplines have begun to consider adult learning: sociology, pedagogy, psychology and other. The most important questions are: Why do we learn? In what context is learning present? What are the activities through which we learn? What is the content of learning? What kind of reactions occur between newly acquired knowledge and skills alreadypossessed? How is knowledge stored? When can we talk about success inlearning? (Nuissl, 2009)

The motives behind decisions undertake self-education can be as follows: a desire to raise one's own professional qualifications; compensatory pursuits, such as getting to know and realizing one's own deficiencies, a wish for social and professional promotion, the need for self-realization; financial benefits; the need to change a job and other.

In the case of choosing self-education, the following factors can be distinguished: awareness of the goal and its pursuit, strong will to implement one's decisions and self-control combined with self-criticism. Motivation involves a desire, pursuit and readiness to make effort in order to satisfy a certain need or needs. Such needs are often created by modern times (Dyląg et al., 2004). One of the strongest motives for learning is interest. Self-education is a process in which learners are more aware, engaged and responsible for their process of learning. Furthermore, when speaking about self-education certain independence from a teacher is implied. However, such far-reaching independence is not always recommended, as it is often ineffective. An element

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[14] Edukacja dorosłych (Adultseducation), 2009, GUS Informacje i opracowania statystyczne, Warsaw

that is fundamental in this case is motivation. There is a significant difference between the learning situation, in which "I have to" and the one in which "I want to" learn. In the first instance, we enroll on a course or start to learn on our own,since we are instructed to do so by our superior or because we have to find a job or in order not to lose our position in the labor market, etc. In the latter case, however, we wish to fulfill our own ambitions, satisfy our cognitive curiosity or fulfill our passions and interests. The problem, however, is that goals set by ourselves can at any time be changed, modified, reduced or even entirely eliminated. If the only person we account for our accomplishments to is us, we can always change our desires in such a way so as to feel satisfied and eliminate any dissonance, even at the expense of our own ambitions (Frąckowiak, 2005).

The Internet in self-education

A decision to self-educate entails a choice of educational environment and forms of learning. In the era of information society (the concept popularized by a EU Report prepared by Martin Bangermann[15]) it is the Internet. It becomes an instrument able to help people to broaden their knowledge, acquire new competences in a very short time and often at a much lower cost. By using the Internet one can begin cooperation with the best specialists in a given field. Tools that enable such cooperation include: discussion groups, group projects, voicemail, real-time talks, video conferences, etc. Thanks to the process of globalization, education does no longer require travelling to academic centers, often located far away from one's place of residence, or even physical presence in a lecture room, instead, it can be pursued from home. In the era of globalization, gathering learners in a specially dedicated place loses importance, education of the 21[st]century is now moving from an "actual" to a "virtual" class (Zhang et al., 2004).

The role of a computer and the Internet in the process of self-education consists in replacing and enriching certain activities performed by a participant of the process. It boils down to: informative, training, controlling and organizing functions.

It can therefore be noted that nowadays, computer and information technology are able to support education in versatile ways: they can be used as cognitive means, among others, in learning through discovery and problem-solving; education through experience thanks to their interactive capacities, as well as learning through practice (Kida, 2009). Educational computer programs may serve the following functions: conveying new teaching contents; updating the already acquired knowledge; controlling the knowledge and skills; stimulating interests in a certain field; personalization of learning;

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[15] Europe and the Global Information Society: Recommendations to the European Council. Brussels, 26 May 1994

communication between a learner and a computer (Gajda, 2005). The extent and the level at which those functions are fulfilled depends on competences, the skill of decision-making when choosing the best programs that match the intellectual level of the learner at a certain stage of development from a wide range of products, as well as the skill of effective use of a computer in self-education.

Nowadays, a computer constitutes a means of improving qualifications and acquiring new ones, as well as a tool for diagnosis and practice of versatile skills.

E-learning as a modern form of distance education

The Internet opens a new generationof distance education, introducing sophisticated delivery tools and creating a paradigm shift with profound implications on the design of distance education courses.

Distance education, also referred interchangeably as distance learning, is not a new phenomenon. It evolved from correspondence study, open universities, teleconferencing, networks and multimedia delivery to today's Web-based technologies. This evolution is characterized by new teaching approaches, including the adjustment of instructional materials supported by different delivery media. With the advent of the Internet, a new generation of distance education emerged. Complementary to the other models, Internet-facilitated instruction allows for the implementation of synchronous and asynchronous interaction and opens a new series of learning opportunities for education. Increases in bandwidth technologies and worldwide access to interconnected networks enable the Internet and the World Wide Web to develop into a viable delivery system for distance education (Passerini& Granger, 2000).

Digital education, distance education, teaching and learning through the Internet, online training and learning are the forms of education that create good conditions for lifelong learning.

The newest method of acquiring knowledge through the use of computers and the Internet by e-learning involves studying in a virtual environment, blended learning, combines such elements as: information techniques, interaction, educational resources, team and individual work, formal and informal education, as well as support (Hamberg, 2009). The way of combining those elements can differ. Learning may take the form of visiting websites in order to obtain information. Those websites may be specifically prepared as part of an educational or training program. When searching for information on the Internet, like in the case of a library, one has to find the necessary materials. It is unquestionable that skills which are necessary when searching for materials in a traditional way or through the Internet have a lot in common.

Bocheńska-Włostowska (2013) noted that in the USA just in the year 2000, 75% of universities was offered various forms of education through the Internet

and Modern University for the Humanities with the registered office in Moscow and 143 regional centers in the Russian Federation educates around 200 thousand students, offering 3 thousand online courses.

Allen and Seaman (2014) indicate that online education is growing in the United States at a staggering rate and they also indicate that most students will likely be enrolled in an online course in the future.

Also in India open education with a wide range of e-learning services, oriented towards meeting the market needs has been widely promoted. Universities are trying to diversify their courses and develop high quality teaching programs, which make use of multimedia, that will satisfy academic, technical and professional needs of various groups of students. The programs offered by the *Indira Gandhi National Open University* (*IGNOU*) have become internationally recognized (Mystek-Pałka, 2007).

Europe, in turn, shows a high diversity in the use of e-learning. A study conducted by SkillSoft in 2009 found that at that time e-learning was used: in Great Britain - by 22% of large companies, in Spain - 18%, in Poland around 10%, in Italy - 9% and in France - 7%[16].

Effective e-learning skills

The use of digital education requires certain additional practice in communicating with the use of short text messages used during chats or through e-mails, thus the first ability one needs when self-educating through the Internet is efficient interpersonal communication (Clarke, 2007). It is combined with the next crucial skill of information processing. The acquired knowledge has to internalized and subsequently, verified in practice. What is crucial is regularity, as well as ahead planning of the learning process. In short, another skill appropriate, rational work organization. Other desired abilities include the skill of searching for information, selection, evaluation and analysis of suitability of the information found. We now have to mention the skill of verification of the knowledge. Another crucial aspect is developing a habit of entrepreneurial actions. The first step is certainly undertaking the process of self-education, the next - effective e-learning. The final is the use of knowledge gained in practice. It is also easy to perfect the skill of quick reaction to changes as we learn through digital education. Adaptation to new conditions is a feature that becomes useful both at work and in any other situation (Penkowska, 2010). We should also not forget about self-discipline, which is necessary for consistent pursuit of goals, as we, as responsibility and self-criticism.

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[16] http://www.skillsoft.com/elearning-news.asp

Educational portals

Educational portals contain software that allows to create an environment that is central to all activities undertaken with respect to distance learning. Thanks to the use of e-mail and the discussion forum mechanism it is possible to quickly react to the questions and problems of learners. It is also possible to provide a telephone number on which - at specified times - a contact person can provide us with technical or subject matter related support.

Educational portals use modern, multimedia and interactive educational tools, provide e-learning courses, which apply effective educational methods, such as: specific, yet attractive for users, case studies or decision-making quizzes (Jaszczuk, 2005).

Also expert forums have been created on which user questions are answered by specialists from those fields; chats are organized with experts, during which very person using the portal may ask questions and have an online discussion with an expert; discussion forums also play a role of problem analysis groups - users discuss problems in thematic blocks, answering questions and searching for solutions to the problems; a specific form of training are decision-making games, which allow Internet users to imagine fictional situations and roles as well as make decisions related to them, at the same time observing the consequences.

Educational portals usually use a collection of educational materials, part of which are of an interactive nature. They contain a collection of videos directly regarding the studied field, presentations that make use of PowerPoint presentation slides, quizzes regarding the presented problem, a synchronous chat, a discussion forum, e-mail and voicemail, project group work with the use of the same educational material.

Below one can find selected the websites with the aim of giving general idea of the e-learning offer:

- *http://www.aacinstitute.org/welcometoaacissp.html* - The Self-Study Program (SSP) offers the opportunity to learn about various aspects of AAC Institute that support the goal of the most effective communication possible for the individual. The courses allow individuals to work at their own pace.
- *https://www.khanacademy.org/* - Khan Academy offers practice exercises, instructional videos, and a personalized learning dashboard that empower learners to study at their own pace in and outside of the classroom. They tackle math, science, computer programming, history, economics, and more.
- *http://documentation.skillsoft.com/en_gb/skillport/7_3/lh/-*SkillPort is a Web-based, e-learning portal that allows to access a range of training resources at work, at home and on the road... Skillsoft is a pioneer in the field of learning and talent management with a long

history of innovation. Skillsoft provides cloud-based solutions for customers worldwide, who range from global enterprises, government and education customers to mid-sized and small businesses. Their courses, books and videos have been developed by industry-leading learning experts to ensure that they build talent and develop a more knowledgeable, productive and valuable workforce.

- *www.e-edu.pl*-E-edu.pl is a portal which use information technology to give the opportunity to study at any time and place. Its aim is to meet the challenges of education by promoting the idea of a modern and comprehensive education to labor market needs. The projects training enable customers to achieve the goals and desired outcomes. In order to meet the expectations of customers, the team is constantly improving their skills, so that the services provided are of the highest level. New challenges that require innovative, creative and custom learning solutions are undertaken.

- *www.eskk.pl/kursy-online*- ESKK offers an alternative, valuable distance learning methods to all interested raising the qualifications or the development of their own interests. ESKK guarantees a high level of knowledge exchange; They are prepared by the staff of professionals in the fields, on the basis of innovative curricula tailored to the needs of the market. Teaching method used in the courses is derived from the rich experience of correspondence education in the US and Western Europe. Each student is „the only one in the class" - chooses the rate at which will be taught, and enjoy the personal care teacher.

- *www.puw.pl/pl/kursy* - Polish Virtual University (PUW) was created in 2002, it is one of the oldest and largest university e-learning in Central and Eastern Europe. the „Virtual" walls of the university have already left more than 20,000 graduates. PUW is specialized in on-line studies at all levels: undergraduate degree (BA and BSc), second-cycle programs (Master), postgraduate studies and training courses.

- *http://kursy-online.4system.com/* - 4system is one of the biggest teams engaged in different kinds of e-learning activities:creating e-learning systems, e-learning courses, implementation of courses on LMS platforms, creating tools for the production of training, systems integration.

- *http://www.kursy-izywork.pl/* - Training and Advisory Centre Izy Work. It organizes courses, training according to the needs of the labor market and on behalf of plants, offices and individuals. Cooperates with the Office of Labor in aim to train in the most sought jobs in the labor market.

- *http://www.mg-edu.pl/* - MG-edu is one of the forerunners a network of training courses offered via the Internet. They offer a wide range of

vocational courses, hobby, entrepreneurial and training to support the personal development (self-improving courses).

Pros and cons of distance learning

An e-learning system is a Web-based communication platform that allows learners, without limitations on place and time, to accessdiverse learning tools, such as discussion boards, assessments, content repositories, and document sharing systems (Martins & Kellermanns, 2004; Ngai et al., 2007, Mohammadyari & Singh, 2015).

E-learning makes learning more accessible because, not only can individuals study when it is convenient for them, but they also have access to coaching and support potentially round-the-clock. This means that it is possible to provide an experience more similar to a classroom, with experts tutoring learners located anywhere in the world (Vansteenkiste et al., 2004).

E-learning is quickly becoming a vital part of the learning and teaching process (Pituch & Lee, 2006) because it makes communication among learners and between learners and instructors/teachers more efficient (Martins & Kellermanns, 2004). It also helps organizations increase the geographical reach of their training resources and complement face-to-face training activities.

Given that one of the main roles of e-learning is to consolidate and distribute work-relevant knowledge, it is likely that e-learning use is positively related to job performance (Ali-Hassan et al., 2011). Another benefit of e-learning compared to traditional training is that e-learning can cater to different learning styles by providing multiple paths of learning.

Although e-learning is being used more intensively in recent years and some professionals have demonstrated a willingness to explorenew approaches, many organizations still hold reservations about becoming involved with innovative pedagogical tools and have not yet realized what can be achieved with them (Ho & Kuo, 2010).

E-learning as an educational method has both its supporters and opponents. Znajmiecka-Sikora and Kędzierska (2011) wrote that the supporters, emphasizing the advantages of this method, often point out:

- considerable cost efficiency - training sessions taught in a traditional way must cover remuneration for a lecturer, rental of a training center, transport, accommodation, board, etc.;
- time efficiency - employees do not cause any negligence at work, as they study in the most convenient place and time, as well as they don't have to interrupt their everyday duties;
- easy results evaluation system - learners can easily monitor their learning progress through knowledge verifying tests.

- unlimited number of trained people - there is no limitation as to the number of participants learning online, as in the case of training sessions taught by traditional methods;
- continuous improvement of the training program - every online course program can be modified through the Internet to meet the needs of individual participants, requirements of the market and changes in law.
- modern teaching method - participants can improve their knowledge using the newest tools, a learner can at any time return to the information provided in the online training and verify their knowledge;
- e-learning is an optimal method of teaching the disabled - often the only access to knowledge for persons with disabilities.

As far as disadvantages related to the use of e-learning solutions in the process of education are concerned, we can distinguish the following:

- limited direct interactions - communication mostly based on a text read from a computer screen, asynchronous and synchronous communication,
- technical problems - dependence on the quality of equipment, computer and Internet speed as well as computer skills,
- no logistic support (administrative and technical) - no possibility to access the sources of educational materials,
- a learner must be very self-disciplined.

The above-mentioned negative aspects should not be an obstacle in deciding about the manner of self-education and self-development. Online education will surely contribute to a more effective and efficient use of educational materials available on the Internet, as newer and newer educational portals spring up offering online learning opportunities.

In their most recent reports on the state of online education in the United States, Allen and Seaman (2014) found that online courseswould likely become an important part of the repertoire for most undergraduate students in the near future. Furthermore, this reportsuggests that the common perception that online courses cannot be as good as courses which employ face-to-face instruction is starting toerode.

Conclusions

The source of information and knowledge in the process of self-education can be the reality itself or messages about it conveyed through various media, such as books, magazines, radio, television and the Internet. Most of all, such media must contain information that is useful for attaining the goals set by a self-educating learner.

The growing use of Internet technologies for distance education opens new possibilities that move well beyond the provision of more sophisticated delivery tools.

There are strong educational motivations for communities in e-learning, as has been evidenced by much of the current focus on communities of practice. E-learning communities also satisfy the three major characteristics of successful internet developments - they are robust, decentralized and open.

E-learning will be one of the main forms of lifelong learning and providing knowledge to such environments that so far have had a limited access to education. Finally e-learning helps to acquire knowledge and competences that are necessary in today's world, such as the ability to cooperate, find and select information, as well as effectively use information technologies. Globalization and technological progress are changing the structure of economy, shifting emphasis from production to services, where the basic factors of success is the skills and knowledge one has.

My opinion is that the increasingly wider use of the Internet in the process of self-education will become a valuable educational medium, conducive to social interaction rather than isolation of people. After all, the Internet allows for cooperation, collaboration, discussions, fulfillment of similar goals related to acquiring similar competences. I ampersuaded that an effort should be made at a theoretical level to encompass all facets affecting the use of new technologies in e-learning practices.

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