

Open education: continuity of approaches and risks

Tatyana Shamshina¹, Catherine Koryuhina^{2*}

¹*Transport and Telecommunication Institute, Lomonosova Str.1, Riga, LV-1019, Latvia*

²*Information Systems Management Institute, Lomonosova Str.1, Riga, LV-1019, Latvia Riga, LV-1019, Latvia*

**Corresponding author's e-mail: jekaterina.koryuhina@gmail.com*

Received 1 March 2015, www.isma.lv

Abstract

The paper discusses new opportunities of the modern open education for the development of the creative and competitive person, as well as challenges, problems and threats for an individual in relation to increase of a role of information, knowledge, informational and communicative technologies in the life of the modern society[5].

To overcome the existing barriers in the educational sphere, in the authors' opinion, is possible through continuity of approaches to education, quality and effectiveness at development of educational competences (common cultural, preprofessional, professional and methodological).

Keywords: modern standards, quality of education, competence, open education, distance learning, educational continuity, didactic principles, risks

1 Introduction

Global changes in the world, bound to integration and expansion of interstate cooperation, an advancement of science and technologies have significantly changed the direction in education. Both the future of the education, and of society in general depends nowadays on understanding by all participants of educational process of the direction of a strategic development of education.

Along with the leading scientists and experts in the field of informational technologies, many modern teachers, philosophers, theologians and journalists, discussing a complex of problems of open education, note that process of application and intensive development of informational technologies in the educational sphere has the hidden ambivalent character. The apparent advantages and conveniences brought by them on the one hand, are combined with the essential hidden risks and threats for the person and society on the other hand.

In this regard the modern vector of a strategic development of education which is already directed at open education needs to be focused on continuity of approaches, achievements of steady quality and effectiveness in education.

2 Contemporary education development strategy

According to the European educational standard, legal documents of the World Bank, the IMF, UNESCO, the Bologna agreements, the national laws "About Education" one of key approaches of continuity in education is ensuring continuous quality of education [1] on the basis of civilization, subject and competence-based approaches within an integration paradigm [2].

The realization of strategy of a development of education is implemented today not only within classical formal education (at schools, gymnasiums, lyceums and universities), but also through informal, distant and open education by means of the individual educational

trajectories (IET), the individual curricula (IC), and the individual educational programs (IEP) [3].

Our conclusions coincide with opinion of the prominent British scientist in the field of open education, John Daniel, describing the concept of Open University of Great Britain, which "... was created with the purpose to be open in relation to people, to a place, to methods and to ideas. For all that, openness to people means elimination of any academic requirements for enrollment. Openness to a place implies creation of the system of distance learning allowing people to study wherever they are. Openness to methods means engaging in educational process of any innovations in the field of informational and telecommunication technologies which can make tutoring more efficient and pleasant.

At last, openness to ideas – means the very essence of university: it means emphasizing of both study and research activity for students". [7]

Besides, in our opinion in legal aspect open education is urged to provide a principle of social justice, i.e. to give equal opportunities to civil and military experts, pupils and students, and even to the unemployed in any country and beyond its limits to realize human rights on education and obtaining information. Adequacy and flexibility of response to requirements of society and realization of a constitutional right on education of each individual makes system of open education especially attractive.

3 Terminology

Speaking about open education, variety of the existing terms for definition of this phenomenon should be noted. It is known that the distance learning (DL) in the form of the correspondence education arose at the beginning of the 20th century. Today the term "distance learning" (distance education) is commonly accepted in both Russian and in English pedagogical literature.

At the same time there are other terms emphasizing a special role of telecommunications in the organization of access to open learning. Such variants are given below:

1. Open education
2. Distance education
3. E- education
4. Distance learning
5. E-learning

4 Arguments for modernization of education

Specialists in strategic problems of education call a distant form of open learning an "educational system of the XXI century". Why? First of all it is bound to objective factors of scientific and technical progress and basic changes in the social sphere, namely:

- transition from a technosphere to an infosfer is carried out;
- professional knowledge becomes out-of-date very quickly;
- the world telecommunication infrastructure is well developed;
- human rights on education and obtaining information are realized;
- the modern interface (integration of a sound, driving, image and the text) is provided;
- necessary minimum level of education for survival of mankind is considered to be the higher education;
- according to the World bank the actual cost of storage, processing and information transfer nowadays decreases twice each 1,5 years.[6]

In the framework of the above mentioned reasons "the closed educational architecture" has become an "open educational architecture", and education as a process has to evolve accordingly and to move to a new qualitative level of open education.

5 Features of DL

Research shows that for the last decades the number of the students who are trained by nonconventional technologies grows quicker than the number of students on full-time departments. This world tendency of transition to various forms of open education is traced and in the increase of number of the higher education institutions conducting preparation using the DL technologies.

In our opinion such wide popularity of DL in the world, giving opportunity to students, irrespective of the place of their residence to complete a course of any college or university, is connected with a number of characteristic features:

1. Flexibility (elasticity) of DL in terms of individual choice of time, place and pace of learning;
2. Special communicative interface of DL in terms of new social roles in the study process (Teacher+Student=Tutor+Customer);
3. Modularity or fragmentation of DL in terms of possibility to form study program from separate independent courses-modules;
4. Technology, i.e. use of special technologies and DL means;
5. Efficiency and special quality control of DL in terms of systematic monitoring of knowledge acquisition by a student;
6. Economy, i.e. low cost of educational services from

the point of view of mass client;

7. Profitability (return on investment) in DL system and its modernization from the point of view of investors and universities.

The economic component in system of open education, perhaps, plays a crucial role. Most of experts share the view that distant education is already now cheaper than traditional, at least by 20%, and in the long run, according to Microsoft, the cost of network tutoring can decrease at least twice against the traditional education [6]. Apparently, high profitability of DL allows it to compete seriously with a system of traditional education at mass aspiration of the population to receiving educational services.

6 Role of educational continuity

It is apparent that ensuring steady quality of education is possible only on condition of educational continuity in elite profile and elite higher professional education.

The educational continuity is, first of all, continuity in all-didactic approaches to education which are realized in a stable system of the interdependent contents and coordination of all components of educational process [4].

It is necessary that the basis of open education (distant education) was formed by the set of all didactic principles of teaching giving the chance to carry out tutoring so that it corresponded to logic of knowledge as such. Ensuring steady quality of education, specific communications and interconditionality of separate elements of process of teaching and the content of studying are carried out only when there is educational continuity of approaches in realization of the main principles of didactics:

1. Principle of obviousness/visibility.
2. Principle of consciousness and activity.
3. Principle of availability.
4. Principle of scientific character.
5. The principle of an individual approach to the trained.
6. Principle of systematicity and sequence.
7. The principle of durability in mastering knowledge, skills (competences).
8. Principle of unity of the theory and practice.
9. Regularities of process of studying.
10. Principle of sufficiency.

The rules of learning reflecting more private provisions of this or that principle follow from the principles of learning, i.e. each didactic principle has to have the concrete rules of realization and in a system of open education. For example, the principle of systematicity and sequence in tutoring includes such rules as link between new materials and the earlier studied, splitting of the studied material into blocks, subsequent fixation of the acquired knowledge.

The continuity of approaches for distant and open education consists also in expecting changes in life and to prepare for them "in advance" by means of education. According to P. K. Anokhin the advancing education has deep roots in cognitive psychology and even in physiology of alive organisms, it is based on phenomena of the advancing thinking and the advancing reflection of reality [7]. The person possesses ability to the analysis, prediction, anticipation of succession of events and widely uses it both in everyday life, and in scientific activity. Therefore the aspiration to transfer this ability and to the field of education

looks absolutely natural.

Preparation of professional elite is the purpose and a task of civilized society at all levels. Profile education also is one of conditions of educational continuity in the continuous elite higher education, and has to be fully realized in distant and open education, as the factor promoting increase of effectiveness of training of competitive experts [4].

7 Hidden risks

Along with the leading scientists and experts in the field of informational technologies, many modern teachers, philosophers, theologians and journalists, discussing a complex of problems of open education, note that process of application and intensive development of informational technologies in the educational sphere has the hidden ambivalent character. The apparent advantages and conveniences brought by them on the one hand, are combined with the essential hidden risks and threats for the person and society on the other hand.

In this regard, it would be desirable to refer to the systemic conclusions drawn at the XVI annual conference "Science. Philosophy. Religion", taken place on October 21-22, 2013 in Dubna situated near Moscow on the basis of the Joint institute of nuclear research [5].

Global transformations and systemic challenges which the mankind has already faced and will inevitably face in the near future, have irreversible character. Thus, carrying out process of education in the conditions of an early formation of informational civilization, formation of new informational and global outlook, culture, integration of technologies and emergence of nano-bio-info-kogno-social (NBIKS) technologies, change of mentality, type of thinking, behavior of the person and so forth, in the absence of a transparency of management, DL can be used for distribution of unreliable, harmful or false information, as well as in personal or mercenary interests of individuals and groups [5].

One of aspects of such use is destruction of traditional values including fundamental classical education that especially negatively affects basic life principles of younger generation.

The set of problems of application of informational technologies and process of their intensive development are inevitably bound to the humanitarian sphere, and, therefore, to education. In the humanitarian sphere it is possible to allocate a number of the fundamental aspects which are exposed to transformations from usage of informational technologies (see Table 1).

The new type of a person with primitive and infantile consciousness and will is being formed. The dangerous tendency of decrease in level of conscious perception by a person of information that facilitates manipulation of individual is seen. Besides, influence of a huge flow of information on human psyche has not been fully studied yet.

However, it is already well-known that the long communication in the virtual reality harmfully affects younger generation. Today's "Internet generation" with characteristic media environment in which intensive virtual

communication takes place, is characterized by discrete perception, clip thinking, new psychosomatic frustration of health, etc.

TABLE 1 The aspects which are exposed to transformations from usage of informational technologies.

| Aspect | Transformation essence |
|-----------------|--|
| Civilization | Formation of informational civilization |
| World outlook | Formation of new informational and global outlook |
| Culturological | Formation of new informational culture of society |
| Technological | Integration of technologies and emergence of the nano-bio-the info-kogno-social (NBIK) of technologies |
| Biosociological | Change of mentality, type of thinking, behavior of the person, etc. |
| Ethical | Destruction of traditional morality and standard human values |

At last, technologies of the virtual communication (Internet, social networks and so forth) can not substitute original human communication and lead to weakening of the interpersonal relations, including the relations even between family members.

What especially causes fear are the modern biotechnological projects, connected with application of genetic engineering, unity of simulated and natural systems (e.g., the interface "brain-computer") since on the one hand, they are really capable of expanding physical and intellectual capacities of the person, but on the other hand, they can cause, perhaps, irreversible transformations of a human nature.

8 Conclusion

Systems analysis of development and application of informational technologies in education shows that along with perspective of welfare development of humanity there is also an actual possibility of its turning into artificially operated society with essential restriction of an internal and external personal freedom. Influence of a huge flow of information, the prolonged communication in the virtual environment especially negatively affect younger generation.

Only being guided by continuity of approaches in education, achievements of steady quality and effectiveness, further development of open and distant education and overcoming of risks of depreciation of original knowledge, devaluation of education, decrease in intellectual and moral level of the person and society in general is possible.

It is essential nowadays for all the participants of educational process to understand the direction of a strategic development of education. To overcome the existing barriers in the educational sphere is possible through continuity of approaches to education, quality and effectiveness at development of educational competences (common cultural, preprofessional, professional, and methodological).

References

- [1] Koryuhina C, Shamshina T 2015 Total Quality Management Principles Adaptation in a Higher Educational Institution. In: Inter-higher school scientific and educational conference „Actual Problems of Education” 26 -27 February,2015.- Riga:TTI 25-6
- [2] Kobzev K.O. 2013 Zarubežnyj opyt kompetentnostnogo podhoda v obrazovanii. Materialy I Meždunarodnoj distancionnoj naučno-issledovatel'skoj konferencii «Pedagogičeskij opyt».-M: Internet-ploščadka centra pedagogičeskij tehnologij im. K.D.Ušinskogo g.Moskva
- [3] Labeev V, Shamshina T 2015 Examples of Individual Educational Trajectories in Mathematical Disciplines In: Inter-higher school scientific and educational conference „Actual Problems of Education”, 26-27 February 2015- Riga:TTI 82-3
- [4] Aleksandrova N B 2011 Profil'nost' kak neobhodimoe uslovie obrazovatel'noj preemstvennostipri ovladenii professional'nymi kompetentnostâmi Naučnyj žurnal «Problemy sovremennogo obrazovaniâ» 5 71-8
- [5] XVI konferenciâ «Nauka. Filosofîâ. Religîâ» (Dubna-2013)<http://www.inion.ru/conf.Dubna-2013>
- [6] Žurnal «Auditoriâ». Distancionnoe obučenje: idei, tehnologii, problemy i perspektivy. http://od-edu.com/index.php?option=com_content&view=article&id=177:2011-02-05-10-08-10&catid=27:2010-11-15-11-05-41&Itemid=589
- [7] Sokolov V I Čto My Nazyvaem Otkrytym Obrazovaniem?
- [8] Naučno-praktičeskij žurnal «Sovremennye naučnye issledovaniâ i innovacii» <http://web.snauka.ru/issues/2011/05/63>

| Authors | |
|--|--|
|  | <p>Tatyana Shamshina, 24.04.1967, Riga, Latvia.</p> <p>Current position, grades: assistant professor of Department of Mathematical Methods and Modelling, TSI, Riga, Latvia. University studies: dr sc ing, TSI Riga, Latvia. Scientific interest: maths, education. Publications: 50 papers. Experience: 26 years.</p> |
|  | <p>Catherine Koryuhina, 06.01.1078, Riga, Latvia.</p> <p>Current position, grades: assistant professor of International Business Communications Department ISMA, Riga, Latvia. University studies: Mg.oec ISMA, Riga, Latvia. Scientific interest: communication psychology/ethics, English, education. Publications: 20 papers. Experience: 17 years.</p> |