Borys Gricnhenko Kyiv University

OPEN EDUCATIONAL E-ENVIRONMENT OF MODERN UNIVERSITY

Collected Scientific Works

Within the framework
of the international project IRNET

ВІДКРИТЕ ОСВІТНЄ Е-СЕРЕДОВИЩЕ СУЧАСНОГО УНІВЕРСИТЕТУ

Збірник наукових праць

У рамках міжнародного проекту IRNet

Kyiv – 2016

УДК 378.4:004(082)
ББК 74.58я43
   В42

Approved by Academic Council
of Borys Grinchenko Kyiv University
(protocol № 8 on August, 29, 2016)

Editorial Board:

Published by Scientific-Methodological Centre
of Publishing Activity
of Borys Grinchenko Kyiv University

Open Educational E-Environment of Modern University :
В42   collected scientific works / [editorial board: N. Morze (editor-in-chief), O. Buinytska (executive editor), E. Smyrnova-Trybulska, E. Ogrodska-Mazur et al]. Kyiv : Borys Grinchenko Kyiv University, 2016. 438 p.
   ISBN 978-617-658-018-8

УДК 378.4:004(082)
ББК 74.58я43

ISBN 978-617-658-018-8

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CONTENTS

Nataliia Morze,
PhD, Professor
Corresponding Member of National Academy
of Pedagogical Sciences of Ukraine
Vice-Rector on Information Technologies
Borys Grinchenko Kyiv University
Kyiv, Ukraine
n.morze@kubg.edu.ua

Eugenia Smyrnova-Trybulska,
Dr Hab, Assosiate Professor
Head of the Department of Humanistic Education
and Sciences of Pedagogy Support
Faculty of Ethnology and Educational Sciences
University of Silesia
Katowice, Poland
esmyrnova@us.edu.pl

Martin Drlík,
Mgr. PhD, Assistant Professor
Department of Computer Science
Faculty of Natural Sciences
Constantine the Philosopher University
Nitra, Slovakia

Izabella Alvarez,
PhD, Associate Professor
Faculty of Economics and Business Communications
Lusiada University
Lisboa, Portugal

EDUCATIONAL E-ENVIRONMENT OF MODERN UNIVERSITY: FOREIGN EXPERTS' PERSPECTIVE

This article presents discussion of a round table debate "Open Educational e-Environment of Modern University". The group of European experts share their professional and personal insight on the issue of construction, introduction and sustainable development of open educational environments in the Information Age.

Key words: *discussion, e-environment, university, experts, educational.*

The dynamics of modern society toward information and open one is naturally reflected in education that mirrors social and other actual relations in society. One of the newest forms at this stage of social development is open education that provides comprehensive and utmost implementation of new information and pedagogical technologies in teaching.

Education must cater to and fulfill the society needs. However, the forms of knowledge acquisition and update have remained unchanged.

The actual steps toward solving these problems are:

− creation of a unified educational information environment;

− the use of open learning;

− providing open access to distributed information and technological resources.

Knowledge management has become a new educational principle as well as formalization of knowledge creation, knowledge (access to knowledge) transmission (distribution) and knowledge control have become new technologies of education. Equal access to such technologies should be provided at all levels of education system. That's why within the course of a round table debate "Open Educational e-Environment of Modern University" the group of European experts shared their professional and personal insight on the issue of construction, introduction and sustainable development of open educational environments in the Information Age. The discussion was moderated by the Professor Nataliia Morze, PhD, Vice-Rector of Borys Grinchenko Kyiv University (Ukraine). The group of experts featured members and coordinators of the 7th EC Framework Program IRNet project:

Eugenia Smyrnova-Trybulska,

Dr Hab, Assosiate Professor, University of Silesia (Katowice, Poland);

Martin Drlik,

Mgr. PhD, Constantine the Philosopher University (Nitra, Slovakia);

Izabella Alvarez,

PhD, Associate Professor, Lusiada University (Lisboa, Portugal).

Nataliia Morze: the study at the University was associated with the concepts of science and learning process. At present, the concepts of university and learning environment are inseparable. What has

changed? Could you tell us about some reasons of implementation of e-environment concept in modern university? What other concepts can be represented when we speak about university of the future?

Eugenia Smyrnova-Trybulska: When we speak about university of the future I would like to mention:

– competent teachers and researchers;

– global and comprehensive implementation of contemporary technology;

– open, flexible, multi-vector, multi-threaded education in the e-environment;

– increasing the level of internationalization.

Universities have become centres of innovation, high-tech, globalization and application of science.

Martin Drlik: the criteria for faculty evaluation have changed. The university professor or tutor should be not only an educator but also a researcher and a productive author of scientific publications. At the same time, information technologies have become an inseparable part of the everyday life. The electronic environment of the university is a *Izabella Alvarez:* Internet and the web (especially Web2.0) made possible the electronic environment concept due to the standardization of the protocols of communication. However, there is still a gap in literature concerning its content.

Nataliia Morze: Universities as all schools have always been open not only in our country. However, the concept Open University, open learning environment of the university, has never been used before. What are the three features of the modern university nowadays?

Eugenia Smyrnova-Trybulska: As to the main features of the modern university today I would like to mention:

– internationalization;

– globalization;

– open e-environment.

It is worth mentioning such additional features as:

– lifelong learning;

– high quality of education;

– universities as centres of innovation, high-tech and internationalization of science;

– universities as centres of science and research;

– preparing students for competitive specializations required at the labour market.

Martin Drlik: the modern university should be a research-oriented university, closely connected with the industry and entrepreneurs, and be in the position of regional authority or partner in many areas of the society.

The openness of the learning university is slightly another question. It is not possible to provide all educational resources freely available to everyone. However, there are many possibilities how to share and broaden the knowledge to different target groups.

Izabella Alvarez: A modern university does not mean that everything must be done electronically, keeping the students at distance. An open university or open learning environment suits the groups of students that cannot attend physically the courses.

A modern university must provide:

– face to face learning to the group of students that can attend classes and so take advantage of the social contact with their schoolmates making friends for their whole life. This type of learning should be supported by blended learning;

– distance learning for those students that cannot or do not want to attend classes.

Nataliia Morze: What is your opinion on the term "scientific" in the concept of "educational-scientific electronic environment"? Is it a contradiction in terms?

Eugenia Smyrnova-Trybulska: It seems to me the category "educational and information electronic environment" is more general and global than the category "educational-scientific electronic environment" and that it includes this environment.

Martin Drlik: Terms "scientific" and "educational" are closely related to the university. They describe the primary goals of the university – to provide high quality education and act as the research center of the region or the whole country. However, educational and scientific e-environments are usually two different environments, which are only partially interconnected. The aim of the university management should be to engage students in pursuing career in research and science. On the other hand, there is a great opportunity to do educational research in the electronic educational environment.

Izabella Alvarez: to add the word "scientific" to the concept of "educational environment" may induce that it is learning only directed to the scientific courses which are usually engineering, medical, biological courses. Educational environment should be the right designation enclosing all the different areas of study.

Nataliia Morze: According to the 7th Framework program of EU, we have visited the University of Twente. It is an amazing University. The first thing that impressed us was educational process with lectures and seminars. The key of educational process there is a training Project – research project, crowdsourcing project, and start-up. Are there universities with the following educational process in your country? Could you name them? If not, tell us the reasons of it.

Eugenia Smyrnova-Trybulska: There are some universities with the following educational process in Poland. Among them I would like to mention University of Gdansk (http://nauka.trojmiasto.pl/Uniwersytet-Gdanski-w-gronie-TOP-10-Startup-Friendly-n86781.html) which has developed more than 700 start-ups during 10 years, Poznan University of Economics and Business, Wroclaw University of Economics and our University of Silesia.

As to reasons, I think they are:

– establishing an academic entrepreneurship incubator at the university;

– legal support for young entrepreneurs;

– support in accounting and financial terms;

– competent activities of the Career Office and good promotion;

– help and support from the academic entrepreneurship incubator and the Career Office in finding financial sources for different undertakings;

– activities and enterprise aimed at creative competence and thinking of side scientists and academic teachers of the university;

– changes in the concept of teaching and learning method and others.

Martin Drlik: There are several successful cases of studies of this approach in Slovak Republic. Most cases were realised at the universities, which focus on management, economics, but also on IT or industry. I consider this approach fascinating. Its wider use is conditional on the demand and willingness to cooperate with private and non-profit

sector, students' understanding of this approach, their responsibility for their future career and employability in the labour market.

Izabella Alvarez: No, there is no such education process in the universities of

Portugal. Universities are organised in the traditional way, although it has already been offered e-learning facilities for those who prefer this sort of learning. Also, universities are controlled and certified by the Ministry of Science and Technology, under strict rules.

Nataliia Morze: Could you name two or more universities in your countries which have created an open learning environment of the university? What made it possible: the personality of a leader-strategist-innovator, money, educational policy?

Eugenia Smyrnova-Trybulska: There are such universities in Poland and Polish Open University in Warsaw, University of Silesia, Open University of Science and Technology in Cracow are among them. I think the personality of a leader-strategist-innovator, money and educational policy are the key of creating an open learning environment of the university.

Martin Drlik: It is not usual to provide open learning environment of the university to the public. Almost all Slovak universities provide a subset of the educational resources in electronic form, mainly in the form of e-learning courses. Electronic versions of books and textbook are largely used. The level of the openness of the university is directly related to the vision and long-term strategy goals of the university management. If they are accepted, it is, of course, necessary to have a budget, engage faculty staff and define processes.

Izabella Alvarez: I would like to mention such public universities as ISCTE and Universidade do Minho (there are the others ones) and private universities as Universidade Católica and Universidade Autónoma (there are the other ones).

The following factors made creating an open university learning environment possible: the growing need to support students that cannot attend classes and the use of the internet / web technology: the group that takes the decision in the universities (in some universities it is the rector, in other ones it is the administrators) understood that they should start moving towards distance learning to complement the actual learning offer and so the necessary investments were made.

Nataliia Morze: It is known that many countries have developed sucessful education policy which takes into account the fact that society has become information one. Is the following policy implemented at a state and university level in your countries? If so, how long has it been adopted?

Eugenia Smyrnova-Trybulska: As the mentioned education policy is developed and implemented in Poland, it should be noted the most important documents such as:

– Development Strategy 2012—2020 (University of Silesia in Katowice) (http://bip.us.edu.pl/sites/bip.us.edu.pl/files/strategia20130627eng .pdf);

The Strategy is intended to outline future-oriented growth trends of the University of Silesia with the aim of quick responding to the ever-emerging challenges of the new times and strengthening the University's position in Poland and abroad — a strategy for smart, sustainable and inclusive growth within Poland's National Reform Program. The Strategy presents challenges which have been given high priority in view of the future of the University of Silesia, and provides specific solutions to the dilemmas we will be facing.

– Law on Higher Education; (http://www.bip.nauka.gov.pl/g2/oryginal/2014_03/4ee4d7fcec1a100 d8ee3e690fb4cd09d.pdf)

– Education Policy (http://pkn.pl/polityka-edukacyjna);

– Essential Objectives of Polish Education (www.rpo.gov.pl/ pliki/1139860491.DOC);

– Legal Aspects of the Development of Information Society in Poland (https://www.web.gov.pl/g2/big/2009_12/60262697a02b6fe40139bbc bcc311850.pdf) and others.

Martin Drlik: Educational policy is defined on many levels, on the EU level and on the national level. Therefore, it is necessary to take it into account also at the university level.

Izabella Alvarez: Yes, in Portugal there is a strong recommendation to use the "information society" in every field, both in education and also in industry. This also applies to the state level and it started more than 10 years ago.

Nataliia Morze: Distance learning (or blended learning at present) is spoken by everybody but not the "lazy people". Are the "lazy people" more likely to be right in a general sense? Should we wait until distance

learning will help to improve the quality of education? Who is the winner in the following process: who is in a hurry or who is waiting?

Eugenia Smyrnova-Trybulska: It seems to me that both processes should be developing synchronously - distance learning as well as improving the quality of education. A digital revolution is really taking place and it's impossible not to take into account the change in IT-technology, devices and technology trends. Young learners don't want to learn according to old traditional methods and they are already prepared for changes in educational methods, based on e-learning support. This also confirmed the research and studies conducted within the framework of IRNet Project. More than half of students prefer distance and e-learning, more than 80 % use social media for educational aims…

Martin Drlik: As has been stressed before, distance learning implementation with the use of e-learning requires many financial, managerial, personal and technical resources. For that reason, it is necessary to minimise a failure. From this point of view, the position of lazy men is safer. On the other hand, it is hard to implement easily e-learning solution from one university to another, because each university has different processes, people with different knowledge, expertise of experience, etc. The success of the e-learning implementation depends on the university management, and their ability to improve the quality of educational processes as the whole. E-learning is only modern, although many times proved, tool, which can help in the quality improvement process.

Nataliia Morze: Could you give me any reasons for preventing the process of distance learning implementation?

Eugenia Smyrnova-Trybulska: I don't know any typical important reasons, but they may reduce the pace of development. Simultaneously among challenges we could mark a slow Internet connection and sometimes lack of competence on the part of lecturers in the field of e-learning as well as not sufficiently developed distance courses.

Martin Drlik: to my mind, these reasons are the following:

– missing identification of the university management with the possible advantages of distance learning implementation (in the form of e-learning);

– weak teaching staff engaging into the e-learning;

– insufficient motivation to use modern forms of learning and experiment.

Izabella Alvarez: the use of certain technologies can prevent:

– limited technological facilities;

– large investments with higher costs than the traditional face to face learning;

– difficulties in motivating students and preventing them from giving up distance learning course.

Nataliia Morze: As I know, many rectors prevent the process of university e-environment development. Do the university rectors support the widespread introduction of ICT in the learning process in your countries?

Eugenia Smyrnova-Trybulska: I don't know such reasons and statistics. Our Rector Professor, PhD Hab. Wiesław Banyś supports the development of e-learning at the University of Silesia and he includes e-learning in the priorities of the developmental strategy of our university.

Martin Drlik: E-environment formation at the university does not belong to the priorities of the high education at the national level. For that reason, its implementation is based on the preferences and strategic decisions of the university management. The university management should define rules, criteria for educational content quality evaluation, approaches to teaching staff motivating, and invests in the IT infrastructure and faculty. All these aspects contribute to the final decision of the university management about the support or damping development of e-environment of the university.

Izabella Alvarez: As I say above, these type of decisions / investments, if proved to be useful and needed to the universities / students, are approved by the administration or the rectors (depending on the structure of the institution management).

Concerning the introduction of ICT in the learning process it is already well spread around the country, whether in Universities or high schools.

Nataliia Morze: What is your opinion about MOOCs? Are they good or bad for the future of the university? As you know, these courses are open and free (if it is required, students receive certificate), but at the university students should pay for study.

Eugenia Smyrnova-Trybulska: MOOCs are very important and necessary first of all in informal education. Simultaneously, the elaborating of the MOOC is a very hard task and needs intellectual work of a lot of teachers, authors as well as a lot of time because issuing official certificates should be paid. On the other hand, if the authors have financial support from grants or other sources, the MOOCs course could be free of charge for students. However, a little payment could be additional motivation for students to end the course and receive the certificate.

Martin Drlik: I consider MOOCs can improve and fill the empty place in the educational universe. I do not consider MOOCs to be a concurrency to the universities. MOOCs are free. However, the accepted certificates are also paid. They are not accepted by the recruiters at the same time. Therefore, the position of the universities is not jeopardized. Moreover, these certificates are not widely accepted. They do not replace successful completion of the study programs at the universities. On the other hand, MOOCs can improve the quality of the courses at the universities, because the students have easy access to the syllabus of the given subject at other universities and can compare it with the syllabus of the visited subject.

Izabella Alvarez: Although the use of ICT technology was quickly proved to be very useful to the actual learning in Universities, in Portugal MOOC will take long before being considered as all the learning in Portugal is controlled and certified in terms of quality by the Ministry.

According to the Portuguese culture, there will be a suspicion by industry whether MOOC courses will be duly qualified.

Nataliia Morze: Today MOOC platforms have appeared in all countries as well as in Ukraine. Who has already worked with MOOCs? Can you see key advantage of MOOC?

Martin Drlik: I have participated in several MOOC courses as a student. MOOCs provide an opportunity for teachers to know, how their subjects or research fields are taught at the leading universities, what topic are in the curriculum, what kind of resources and activities they use. From the teacher's point of view, MOOCs moved the teacher's role to the background, because the emphasis is on the communication in the community of learners and on the help of so-called teacher assistants.

Izabella Alvarez: I have not worked with MOOCs until now. At this moment I cannot see a real advantage yet as opposed to the classical courses.

Nataliia Morze: What challenges do the universities with a wide MOOC implementation meet?

Martin Drlik: Universities should provide e-learning courses and prepare students to obtain knowledge and skills necessary for their lifelong learning. As I wrote before, I do not consider MOOC to be a direct concurrency to the universities if we talk about the third level of education (higher education). However, MOOCs can be a more popular choice for people, who would like to improve their knowledge, proficiency and skills while they are working. Another situation will occur, when the paid certified specialisations in MOOCs will be accepted by the employers.

Izabella Alvarez: As I told above, MOOC is far from being considered or used.

Nataliia Morze: Is e-environment hurt the quality of university education or improve it?

Eugenia Smyrnova-Trybulska: I think e-environment improves the quality of university education. However, conditions should be taken into account.

Martin Drlik: Many internal and external factors affect the quality of university education. E-environment can improve the quality if its implementation and use are in the line with the vision and intentions of the university management. The university should define clear rules, processes and responsibilities for all e-environment stakeholders. Moreover, it should train the stakeholders, explain the necessity of e-environment as well as provide control mechanisms.

Izabella Alvarez: E-environment in fact strongly improved the university education. The quick implementation and access to documentation as well as a closer communication with the students are two reasons of it.

Nataliia Morze: in our university we have Certification of Electronic Educational Courses. This means that e-courses are checked for compliance with internal corporate quality standard. What do you think this procedure is necessary and whether it is in your universities? If not, then whether it needs to be implemented?

Eugenia Smyrnova-Trybulska: Yes, our University of Silesia has a legal regulation of the implementation of distance learning as well as the introduction of e-learning courses… We have the verification

of electronic educational courses conduced according to Academic E-learning Community (SEA) as well as internal corporate quality standards. There is a multi stage mode – preparing a draft version of the course and using it for supporting traditional classes, making improvements according to students' suggestions and then – using the improved distribution version for distance learning (up to 60 % hours). Every year the evaluation of distance learning courses is conducted by students and distance learning experts.

Martin Drlik: Yes, the internal process of evaluation of the e-learning courses should be known and strictly used. The e-learning board at our university defined a set of criteria, which have to be completed for certification of the e-learning course. Unfortunately, the process of their implementation is very slow. I assume, the success of this kind of evaluation of e-learning courses depends on the existence of national standards, intentions of Ministry of education, widen acceptation of e-learning in the educational system.

Izabella Alvarez: I need more information about these Electronic Educational Courses. We do not have such courses in our University.

Nataliia Morze: What are the main problems of educational e-environment development at the University?

Eugenia Smyrnova-Trybulska: Copyright and IT competence of the academic staff.

Martin Drlik: People and insufficient external demand. I think people should understand the process of e-environment development and implementation. They should be motivated to take part in it. It is possible to reach this state by the money or by external demand (concurrency, national standards, and international standards).

Izabella Alvarez: Education of all stakeholders in the use of the technological environment. The investment in development of a suitable system.

Nataliia Morze: What are the main risks (disadvantages) of educational e-environment development at the university?

Eugenia Smyrnova-Trybulska: I think it is copyright and other problems.

Martin Drlik: *Return of investment:* the project of educational e-environment implementation is expensive. *Sustain development:* It should be sustainable, not based only on one large project. *Insufficient*

support and training of teaching staff: Teachers are focused on their disciplines. They are not able to spend a lot of time with working in a software application, which is not necessary for their research field. They should find support and help quickly.

Izabella Alvarez: Besides the points already mentioned above, I would say also:

– limited technological formats that can limit the use of some methodologies;

– the need to have a web server, access difficulties and problems with communication;

– greater difficulties of understanding and incorrect interpretation of the intentions of a stakeholder towards the attitude of another one;

– promotion of reflection and development of critical spirit by creating online discussion groups.

Nataliia Morze: What are the main advantages (for student, teacher, rector, university) of educational e-environment development at the university

Eugenia Smyrnova-Trybulska: the main advantages of educational e-environment development at the university are the following:

For students:

– availability of educational sources 24 hours a day in a permanent mode;

– flexibility of the mode of learning;

– availability of current data.

For teachers:

– possibility of easy updating their own distance courses for different categories of students and specializations, preparing new editions;

– easy management of the educational process and assessment (in test form);

– easy communication with a lot of students and coordinating groups, collective work and others.

Martin Drlik:

For students:

– availability of the educational materials;

– improved quality of the educational process, because provided educational content will have the similar structure, extent and evaluated using the same criteria;

– possibility to study outside the classroom.

For teachers:

– improved teachers' work, knowledge and experience with modern tools;

– availability of educational materials at one place;

– improved management of learning process.

For university management:

– PR of the university, because it prefers and provides modern approaches;

– visibility of the university, and consequently better position in international rankings, if the resources are public;

– teaching staff quality improvement.

Izabella Alvarez:

For students: Better and quicker access to contents and documentation.

For teachers: the promotion of reflection and development of a critical mind through the creation of groups of online discussion.

For rector and university: the institution offering an e-environment is considered a modern university facing the future and so motivate new students that there is the right place to study.