Open Online Course for Prepare World Teachers

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Abstract—**The purpose is to display that the use of a system approach in a working up the development of distance learning systems, open online courses, blended (hybrid) training teachers who have the content curator experience and secures an achievement of a high-quality education.**
The analysis results show that distance education technologies leave you to create and use a variety of methods and technological devices of training that meet the requirements of the customer training, promote student motivation and training of teachers, as well as personalizing the learning process. It is important that the strategy of various distance learning technologies have been supported by educational purposes and based on effective organizational support model.

Keywords: distance learning, blended (hybrid) learning quality, MOOC, flipped class, content curator.

I. INTRODUCTION

Recent years, educators use terms such as cloud technology, e-learning and distance learning, open educational resources, blended learning and micro-learning, massive open online courses (MOOC), content curator and many others.

Further developed open learning and open educational resources (OER). A feature of open learning is the freedom to choose the time, place and form of learning. This is - at the same time the philosophy idea and the possibility of personal development. On the basis of OER held open distance learning courses for pupils, students, teachers, and adults. The distribution of leading trends in the development of educational technology [1] indicates the direction of attention of educators to the form of blended learning, which ranks first and is based on a combination of distant technologies and techniques of traditional teaching.

One of the most active areas of distance learning is the use of MOOC (in the ranking [1] they occupy 10th place), which educate ten thousands of learners. These courses appeared in 2011 after the euphoria (February 2013) and the substantial and detailed criticism (November 2013) now entered a phase of systematic inclusion in the educational process. It began the development of MOOC and in a world at last.

The last area that affects the quality of teaching and its current level is content curating [2] - the process of categorizing a large amount of content and presenting it in a structured and systematic form for a particular subject area.

All of these approaches should be focused on the following levels of education [3]:
- Activities aimed at the student's assimilation of frequently repeated tasks - a fundamental basic learning (formation of skill).
- The teacher collaborates with students, guiding the course of their training - special learning.
- Open learning process by leading scientists in specific areas of knowledge using modern methods of communication - Master learning.

II. THE HYPOTHESIS OF THE STUDY

The modern university is an informational and educational space in which users (students, teachers, scientists and the common people) can create a personal learning network (PLN) and participate in the learning process, research activities, cultural events, and others. The structure of the information and educational space includes infrastructure, scientific and methodological support, distance learning courses, software, hardware, etc. The levels of development of such a space in the universities of the world are quite different.

The hypothesis of this study - each university should have, at least, the distance learning system, based on which are created as a training and open distance learning courses; for integration with other educational institutions University should conduct MOOCs for students, undergraduate (initial) courses and masters (connectivity courses); high scientific and modern level of education is based on the learning of content curators among the masters, graduate students, teachers, and scientists. Skills of content curator are basic to any researcher. High level of learning can be achieved through the use of different levels of blended learning, which is considered as a system, created conditions for the transition to a new type of learning.

III. THE SYSTEM OF THE UNIVERSITY DISTANCE LEARNING

The main component of the information and educational space is a distance learning system. The purpose of a distance learning development in the university at the first place is the attainment of improved quality for learning and the forming of students' motivation for day and correspondence forms of learning using modern pedagogic technologies. To achieve the goal it is necessary to complete the following tasks:
1) To develop the infrastructure of distance learning.

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2) Work up the normal documents about the organizational problems of distance learning. Our days, the Ministry of Education and Science of the world for higher education normal documents are enough to create system distance learning for the university. Though it is necessary to develop internal documents to organize and manage the functions of the system.

3) Composing necessary information for the educational process security by teachers.

4) Teacher training on creating a distance course.

5) Training of teachers for carrying distance learning process.

6) Training teachers to the problems of the new information technologies.

7) Prepare students to use distance and blended forms of learning.

8) Provide technical support to students and teachers.

IV. OPEN DISTANCE COURSES

Among distance courses of University open distance courses play its definite role. They may be advertising the university, the ability to attract new students and masters to study at university, to collaborate with other universities and the use of high-quality learning courses. Conducting MOOC together with other universities using blended learning can contribute to improving the quality of education and the formation of students' motivation. The term «massive open online course» offered by two researchers, Alexander Brian and Dave Cormier during a learning course in "Connectivism & Connective knowledge" (such a course was named connective - cMOOC) in 2008 it was performed by George Siemens and Stephen Downes. The special features cMOOC include a large amount of unstructured information, personal goal participant, a possibility for free activity, lack of control on the part of the teacher, in general, the course participant and serves as a teacher and as a student.

The idea of connectivism course could be explained as follows [4]: success in learning to cMOOC [5] depends on the ability, of course, is guided in the material existence of the personal learning environment (PLE) and the PLN, personal goals and ability to express them. Personal development and learning are central to this MOOC.

cMOOC universities need to learn masters, graduate students, doctoral students. Such courses should be interuniversity, created a team of specialists in the appropriate direction. To prepare the master is very important to communicate with the storage media, whose views do not always coincide with their own. It should be noted that all participants in the educational process should be skilled curator content that contributes to processing large amounts of information.

V. BLENDED LEARNING

Sloan Consortium [6] considers the blended (hybrid) courses, as a result of the integration of online courses (30% - 70% of the learning process) with traditional classy means implementation of a planned pedagogically useful way. Blended learning is often called hybrid learning. This is due to the fact that the blended learning emphasizes mechanical association.

The hybrid compound is new, advanced technology (usually electronic) to the old technology and has in mind the creation of a new (i.e. innovation) in relation to older technology. Blended learning as a revision and improvement of technologies can not appear by itself. Additional efforts are needed, including research and creativity, both by teachers and students. Such "disrupted" model reported a new impetus to the development of education, they are more efficient, affordable, personalized, and eventually will probably prevail over the classical (traditional) methods.

The key to blended learning (according to J. Berzin) - is the right choice of social services at the lowest possible cost. This can be achieved thanks to the clear objectives of the activities, that is, a careful analysis of instructional design with the mandatory overvaluation of teaching methods and means of the learning process and the choice of which the most promising and effective, as well as their possible combinations and options.

Back in 2003, the American Association for Training and Development defined blended learning as one of the ten trends in learning [7]. At the same time, it was assumed that in the near future it will be used in 80-90% of all courses.

A. The theoretical basis of blended learning

1. The design process ADDIE

Traditionally, the technology can be used ADDIE [8]. This process works effectively in situations where all participants know exactly what should be the final product, even though maintaining the same will and no one wish to finalize the draft.

2. Pedagogical theory for blended learning

The emergence of new social services influences the development of education and, in particular, distance and blended forms. Reviewed the psychological and pedagogical approaches to learning, especially, if they are related to corporate training. The traditional pedagogical approaches (behaviorism, cognitivism, and constructivism) added new approaches (connectivism). Not gone unnoticed and the formal, non-formal, informal and social learning [9].Consideration of the types of work specialist from simple to creative to determine the ratio of formal and informal learning [10]. In carrying out the usual (routine work) part of informal learning is minimal, but it will increase for activities that require a decision of variant (difficult) problems.

3. Models of blended learning

Most of the blended learning program uses one of the four models [11]: rotation, flexible model, the La Carte and enriched virtual model, but in fact, there are many more. The rotation model consists of four submodels: station rotation, lab rotation, flipped classroom and individual rotation. Each zone in the model performs its role in accordance with Bloom's taxonomy.

4. Flipped classroom

Flipped learning is often used. The purpose of the students - to get acquainted with the topic, learn new concepts and, if possible, to get the skills to use the educational material, and then return to class with questions to clarify their understanding of loyalty and solidify your skills. In the absence of student motivation, most of these jobs will fail.

5. Tools for blended learning

Currently, in the blended learning video plays an important role. Usage statistics video xMOOC shows that the duration of a training video clip should not exceed 10 minutes [12].

6. The role of teachers in a networked world.

In the blended class are four roles in the interaction student-teacher [13]: Art studio (offered by John Sealy Brown), Administrator (Clarence Fisher), Concierge (Curtis Bonk), Curator (Siemens).

7. Quality Assurance in blended learning

The final determination of the quality of blended learning is not possible. You can talk about "good" or "bad" blended learning courses, but experienced designers know that there are many nuances that distinguish one course from another. More often than not, formulate common practical requirements for academic programs in the field of higher education (including on-line courses). Such requirements are generally determined by the minimum acceptable levels of structural composition course for a certain size (e.g., academic instruction, learning context, evaluation and analysis, etc.) learning offers.

Origin of standards affects their credibility. For example, most of the standards of blended courses are written by small groups of people with personal experience of teaching blended learning. Very often, these standards are adopted in a society without analysis and criticism, and they become axioms.

VI. CONTENT CURATOR

Terms of exponential growth in the number of online information and the emergence of new technologies necessity to be able to work with information and use it in the current work. In 2008, coined the term "content curator", which is usually compared with the museum staff [14]. Especially important in this work cMOOC organization, which should be based on the latest information, is not yet past the stage of summarization. It is here that an important role is played by the quality of information and curator, which makes the process of processing transparent and understandable.

Content curation of [15] - is an act of permanent identification, selection, and dissemination of the best and most appropriate online content of different types, and other Internet resources on a specific topic, to meet the needs of specific audiences. Content curator performs the following functions [16]: search, analysis, aggregation - publications, creative, develop, research.

VII. RESULTS

Research Laboratory of Distance Learning (RLDL) NTU "KhPI" in 2001 offers open distance learning courses for schoolchildren (Mathematics, Physics, Computer science, world language) for teachers (Fundamentals of distance learning technology for distance courses; Tutor's Practice) and for all comers (Content curator). Learning received, as a rule, everyone, and learning is provided free of charge.

After the preparatory phase, from 2004 in 2007 and 2010, experiments were conducted on distance learning schoolchildren. In the first experiment were learned more than 200 schoolchildren in Central and Eastern world. Engaging schoolchildren is done by the invitation extended to schools, announced at the Conference. In the second experiment, there were more than 160 schoolchildren and 30 teachers from Kiev (7 schools), Kharkov (4 schools), Vinnitsa.

Another type of open distance learning courses that are conducted by RLDL, were constructivist courses for distance learning system. In the first step of such courses have been limitations in the number of participants, but then it refused due to the fact that by the end of the course approached only about 30% of the participants. Moreover, a third of the recorded just did not start the learning process. For example, in 2013 up to date on the technology development of distance learning courses signed up 90 people from the academic (91%) and corporate (9%) sectors, with experience creating distance courses (45%) and work as a tutor (46%). Participation in the learning took 61% of registered students worked actively - 40% and only 11% (9 pers.) completed the course program.

RLDL since 2011 held a public connectivist courses on directions: "Strategy of development of e-learning in the organization", "Social services in distance learning", "Distance Education from A to Z", "Designing e-learning". The main aim of these courses was to show ways of using distance learning in the organization and assist in strategy development learning, and learn how to design the learning process in an open distance course, to analyze the level of development of distance education in world, consider trends in the development of distance education abroad and formulate the requirements for a modern system of distance learning, improve and

standardize the level of teacher training of world educational institutions in distance learning.

A large amount of educational material and the absence of clear objectives call the course participants considerable difficulties. Limited set of social services leads to problems in tracking the work of tutors and colleagues. PLE aborted listeners created problems during the learning process.

For the training of teachers in the development of blended courses developed and offered an open distance learning course "Technology development of distance learning courses and blended learning" This rate increase teacher (108 h), in which the teacher creates a distance learning course and develops scenarios of its use in blended learning. Blended learning scenario he chooses independently and can discuss it in the forum of the course with colleagues.

At this stage is the formation of local tutors at universities, which will in the future to implement blended learning for teacher training and development of distance learning courses for distance and blended learning.

Given the large variability, you can almost be considered as a system of each course. Preparation of students for teaching in such a course causes a lot of trouble, and the student should be immersed in such courses gradually. One teacher is not able to do it - this is the work of the department. At the department there is a possibility, using a specific set of courses both systems, students display any prescribed level of training.

The course "Content curator" developed RLDL, dedicated to enhancing public audience, from students to high-level professionals. The aim of the course according to Bloom's taxonomy for different categories of students may be different: the level of remembering - collecting links exchange of messages; level of understanding - the classification of links; level of applying - use of materials; level of analyzing - preparation of abstracts; level of evaluating - preparation of abstracts, policy briefs; level of creation - preparation of analytical reports. The content curator must be able to navigate the information resources (including open access), general search engines and special purpose, to be aware in the science-metric studies to determine the validity and scientific value of the information. The work methods of content curator must be based on modern cloud technologies designed to work with large amounts of data (Scoop.it, Storify, Pearltrees), the ability to use crowdsourcing, and developed a personal network
At first open distance learning course "Content curator" in the spring of 2013 goals signed 50 people, of whom 18 completed the program. In the second set in 2013, signed by 150 students, the course program was fully completed and a certificate was got by30 people (20%). In general, for three sets of distance learning course "Content curator" graduated 78 people.

Frequency analysis of the number of participants from the instruments used in the beginning of the course and at the outlet showed that successfully completed the course, students who have mastered more then the four social services. Freshman 42 (30%) left the course because of low skills. Also 20 qualified participants left the course for reasons not entirely clear, probably due to lack of time.

VIII. CONCLUSIONS

The emergence of open educational resources contributes to the spread of open distance learning courses that can be used by students, teachers, professors of universities and adults. A feature of these courses is the freedom to choose the time spent in the course, location, teaching methods and personal goals. In most cases, to participate in open distance courses require the development of PLE and to connectivity courses also PLN. Today, the role of these factors is still not sufficient to understand their function poorly researched and developed, which delays the process of widespread open distance learning courses in the world. Open distance learning courses can and will play a big role in the final stages of learning, especially at the master's level and advanced learning of specialists.

Blended (hybrid) learning thanks to a combination of the best of modern pedagogical approaches, technologies and techniques can provide a synergistic effect in an open developing system of education and to ensure high efficiency of the process, which is so important for the formation of a new identity of the XXI century. However, given the great variability and flexibility in the use of combinations of technologies, approaches and methods to blended learning should also be treated as a system. This, of course, requires training of teachers and the gradual (step) to prepare students for the learning process in the new environment.

Teacher training, it is desirable to use blended learning with the use of open distance learning courses and, with the support of local tutors who can show blended learning in action.

Content curator - this is a new type of activity skilled users. It is estimated that the level of professionalism the content curators exceeds the level of development of open educational resources. You must have the skills to work with literature, do not forget the hermeneutics and vocabulary space continuously develop PLE and PLN. The appearance of the teachers in collaboration world content curators will allow for full c MOOC, in which the content curators will share their experiences and create conditions for training other teachers.

REFERENCES

[1]. L.Carr. "10 predicted e-Learning trends for 2014/15" http://lewiscarr.co.uk/2014/05/10-predicted-e-learning-trends-for-201415/

[2]. V. Kukharenko "Content Curator Method of Work". *Information Technology in Education*. Vol. 16, Kherson, 2013 – pp. 100-107.(in Ukrainian)

[3]. L.Rajasingham, "New Challenges Facing Universities in the Internet-Driven Global Environment", *EURODL,* 2011/I,

[4]. V. Kukharenko «Designing Massive Open Online Courses». *Proceedings of the 9th International Conference on ICT in Education, Research and Industrial Applications: Integration, Harmonization and Knowledge Transfer* - Kherson, Ukraine, June 19-22, 2013. pp.273-280 (http://ceur-ws.org/Vol-1000/ICTERI-2013-p-273-280.pdf

[5]. S. Downs "Educationas Platform: The MOOC Experience and what we can do to make it better" http://halfanhour.blogspot.com/2012/03/education-as-platform-mooc-experience.html?spref=tw

[6]. "The Definition of Blended Learning". http://www.teachthought.com/blended-learning-2/the-definition-of-blended-learning/

[7]. C.J. Bonk, C.R. Graham, J. Cross, M.G. Moore *The Handbook of Blended Learning: Global Perspectives*, Local Designs San Francisco, 2006, Pfeiffer. 624 p. http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0787977586.html

[8]. V. Kukharenko, O. Rybalko, N. Syrotenko. *Distance Learning: Terms of use. Distance course*. /Ed. V. Kukharenko, Kharkiv: NTU "KhPI", "Torsing". (2002) - 320 p. (in Ukrainian)

[9]. V. Kukharenko "Formal, informal, non-formal end social learning in distance learning". *Social educational technology in education. Collection of scientific and methodological works. Ed. O. Romanovsky and Y. Panfilo*v. Kharkiv: NTU KhPI. 2012 - pp. 114-124 (in Ukrainian)

[10]. "Mapping Informal and Formal Learning Strategies to Real Work" http://performancexdesign.wordpress.com/2011/05/04/mapping-informal-and-formal-learning-strategies-to-real-work

[11]. "Blended Learning Model Definitions". http://www.christenseninstitute.org/blended-learning-definiti ons-and-models/

[12]. P.Guo, "Optimal Video Length for Student Engagement", 11.13.2013 https://www.edx.org/blog/optimal-video-length-student-engagement

[13]. M.O'Donnell. "Disruptive Innovations, Blended Learning and Convergent Journalism". MAY 1, 2014 http://thecreativecurriculum.com/2014/05/disruptive-innovations-blended-learning-and-convergent-journalism/

[14]. D.Kelly. "Is Content Curation in Your Skill Set ? It Should Be".: *Learning Solutions Magazine*

[15]. P.Chaney. "Content Curation Fundamentals", Part 1 of a Series «Blogger Network» http://blog.utalkmarketing.com/content-strategy/content-curation-fundamentals-part-1-of-a-series/

[16]. L.Wilson. "Why content curator is not editor". http://community.paper.li/2012/03/07/why-a-content-curator-is-not-an-editor/