E-LEARNING PRACTICE USING MOODLE BY LEADING UNIVERSITIES IN THE RUSSIAN REGION

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ABSTRACT

The aim of this work was to analyze the principles and to use e-learning practices in 70 of the best universities in the world in development of copyright-based distance learning courses in Moodle of Institute of Governance and Territorial Development KFU. Wherein, we used the methods of grouping and regional analysis. Since 2008, the "Modular Object-Oriented Dynamic Learning Environment" used at Kazan federal university (Russia, Kazan) on three main areas: "Zilant", "Bars" and "Tulpar". The author and his colleagues developed a series of e-learning resources in disciplines of "Economic geography", "Regional Economics and Management", etc. The analysis of using the system of Moodle in above universities for teaching economic subjects revealed a number of features:

a) The simplicity and popularity of the LMS «Moodle» resonates with students from many universities. For example, the London School of Economics and Political Science and the University of London was originally used as a commercial product (WebCT), but at the moment the transition of the Moodle system was almost completed, acting on a uncommercial basis, and b) nowadays plug language packs allow you to achieve full localization in 43 languages Moodle. The plan of the KFU science group is using the system in Tatar language, c) The Princeton Regional Schools Moodle Server shows us one more time about the consistency of the system: flexibility, interactivity, cooperation and motivation. Moodle can combine the creation, editing, and reviewing training materials of the teacher and the student.

INTRODUCTION

Education in the 21st century requires the use of creativity and innovation in teaching technology. In the world’s leading universities, including the top 100 QS World University Rankings [3], the tendency is observed of increasing the development work of students and the decreasing of classroom lessons. Therefore, Learning Management Systems (LMS), which form the basis of effective provision of distance education, are quickly developing. For LMS information we can refer to:

- Open source software: Moodle, Sakai, ATutor, Whiteboard;
- Commercial: WebCT / Black board, Gradepoint, Desire2Learn, Learn.com.

The vast amount of functions and possibilities within the system of education management have made Moodle (Modular Object-Oriented Dynamic Learning Environment) a vital virtual learning space used in major universities such as Massachusetts, Stanford, Princeton, Oxford, London School of Economics, etc. Courses on a variety of subjects, including economic disciplines, are available on the universities' servers.
MATERIALS AND METHODS

In the presented work a review was carried out of the top 70 universities in the world (TOP-100) on the application of the open LMS Moodle for teaching economic subjects. The review was done in order to analyze the principles and practices of the use of e-learning by the investigated world Universities in the development of copyrighted distance learning courses on the basis of Moodle in the Institute of Management, Economics and Finance of Kazan Federal University (Russia, Republic of Tatarstan, Kazan).

The review includes a system of economic disciplines, which are publicly available and are free. This invaluable humanitarian venture in universities enabled the use of the foreign practice of e-learning in Kazan Federal University for teaching students of the specialty of "Regional Economics and Management" and "World Economics". Since 2008, the "Modular Object-Oriented Dynamic Learning Environment" has been used in Kazan Federal University in three main areas: "Zilant", "Bars" and "Tulpar." The names of the areas are from Tatar legends and fairy tales.

Zilant - a mythological creature that has the appearance of a dragon or snake. In 1781, by imperial decree, Zilant was placed on the coat of arms of the Kazan province. Since then Zilant has been the symbol of the city of Kazan. "Zilant" - "historically" the first platform in Kazan Federal University, which was established in 2008 on the basis of the Faculty of Computational Mathematics and Cybernetics (currently a member of the Institute of Computational Mathematics and Information Technology). ZILANT uses MOODLE version 1.9.x.

"Bars" - the central image of the coat of arms of the Republic of Tatarstan. In ancient times, the Volga Bulgars’ deity of fertility and patron of children. On the coat of arms of the Republic of Tatarstan "Bars" is the patron of the citizens of the Republic and its people. The platform "Bars" was established in the Tatar State Humanitarian and Pedagogical University (TSHPU), which became part of Kazan Federal University in 2009.

"Tulpar" - a winged horse in Tatar and Bashkir mythologies, which corresponds to Pegasus in Greek mythology. This platform has been in use since 2012, and it is equipped with MOODLE 2.x.

The author in collaboration with colleagues developed a number of electronic educational resources on “Regional Economics and Management” (Fig. 1), “Economic Geography” (Fig. 2), etc.
Figure 1
SCREENSHOT OF THE ELECTRONIC EDUCATIONAL RESOURCE “REGIONAL ECONOMICS AND MANAGEMENT” BY MALGANOVA I., MAKAROVA E

Figure 2
SCREENSHOT OF THE ELECTRONIC EDUCATIONAL RESOURCE “ECONOMIC GEOGRAPHY” BY MALGANOVA I., BUTOV G
The presented electronic educational resources were compiled on the basis of the E-learning practice using Moodle of leading universities.

RESULTS

The analysis of Moodle usage for teaching economic disciplines in the above mentioned universities revealed a number of peculiarities:

A. The simplicity, popularity and interactivity of LMS «Moodle» find a response among students from many universities. For example, the London School of Economics and Political Science of the University of London originally also used a commercial product (WebCT), however at the moment the transition to the Moodle system is practically completed, acting on a nonprofit basis. Of interest is the online market place MITOPENCOURSEWARE of Massachusetts Institute of Technology, which once again confirms the 1st place of the university in the Top-100 ranking. On the web-site 62 opened courses on Economics are available (among them 35 Bachelor courses, 27 – Masters).

In general, at universities the number of open courses for undergraduate studies ranges from 15 to 55, for masters from 10 to 46, although the concern is not the quantity but the quality of available resources. In virtually all 70 universities such classic economics courses as «Macroeconomics», «Microeconomics», «Econometrics», «Statistical Methods in Economics», etc. are presented of the 70 universities (from Massachusetts to the London School of Economics), 68% of educational establishments offer open courses of economics at the global level: «The World Economy», «International Economics», «International Trade», «International Finance», «International Political Economics». All these disciplines are used by students of KFU specializing in "World Economy" as an additional resource when preparing for a seminar on "Regional Economics and Management."

However, for the course on Regional Economics only one open access source was found, «Urban and Regional Economics» of the University of Toronto (Canada). From our point of view the reason is that the notion “region” in terms of globalization becomes a multi-scale concept. In Russia all 83 members of the Russian Federation are considered as regions, which are highly contrasted in terms of territory, administrative arrangement, population and economic potential (Moscow, Saint-Petersburg, the Sverdlovsk region, the Chechen Republic, Perm Territory, the Republic of Tatarstan, Chukot Autonomous Area, etc.). On the other hand, there are cross-border regions («Benelux», «Neisse», «SaarLorLux»), as well as world regions that have supranational institutions.

In general, the principles used in the LMS Moodle by foreign universities are transmitted to the experience of electronic educational sources introduction in regions of Russia and allow the provision of: multiple information representation; the interactivity of the education; multiple repetition of the studied material; the creation of an always-on reference system; effective control of studies; privacy of education; conformity to the principles of effective studying.

B. Pluggable language packs allow the achievement of complete localization; nowadays 43 languages are used in Moodle. The scientific group of KFU plans to develop an electronic educational source in the Tatar language. 36% of all Tatars that live in Russia are residents of the Tatarstan Republic, the rest are scattered in 30 regions of Russia. The total amount of Tatars is about 8 million people.

C. Within the electronic educational resource “Economic Geography” students attending this course also have an opportunity to use geo-information systems (MapInfoProf.7.5) for developing thematic base maps (Fig.3). The usage of geoinformation systems is caused by the
interdisciplinarity of the “Economic geography” course. Map development and geographical analysis are not of a recent origin. However hybrid technology provides a modern, more effective, graphic and fast approach to the analysis and solution of problems facing humanity as a whole and economic organizations or groups of economists in particular. It automates the procedure of the analysis and prognosis.

**Figure 3**
A BASE MAP. TERRITORIAL DIFFERENTIATION OF THE POPULATION’S QUALITY OF LIFE IN ADMINISTRATIVE REGIONS OF TATARSTAN REPUBLIC. MODERATELY OPTIMISTIC SCENARIO

Due to the use of hybrid technology in electronic educational resources, students can: have an idea of hybrid technology, the process of their development and work with electronic maps; create economic data bases for any region and work with them; know the main aims of hybrid technology and the possible use of them in different economic spheres; learn to work with hybrid technology software.

**CONCLUSIONS**

In the work general opportunities were outlined, available for the professors compiling courses in Moodle of the universities under study, as well as of the Kazan Federal University: the possibility of having online study materials; the usage of the sources both in full-time and part-time attendance; the opportunity to create bridging programs, in which the syllabus is defined by the end of the academic activity; the capacity of monitoring the process of education and work individually with each student; the possibility of exchanging study courses with other professors working in Moodle.

Social aspects: The authorial courses presented in the work allow students to study at convenient but limited times (this is very important for disabled-students and those who missed classes through illness, etc.). Moreover, students have an opportunity to create educational
audio/video resources in several languages (Russian, Tatar, and English) in coordination. This leads to the development of creative and research activities of students in a multicultural region. The experience of leading universities in the usage of the given LMS lets us take into account both its social and technical aspects: in Moodle it is possible to develop, edit and review teaching material in combination between a professor and a student. Joint creativity provides scientific progress.

CONCLUSION

A survey conducted among first-year students of the Institute of Management, Economics and Finance studying “Economics” (groups 7331-1, 7331-2, 7331-3; 91 students) showed that despite not using electronic educational services in the schools of 93% of responders, students have a positive attitude towards the usage of the LMS Moodle in their studies (94% were “for”, 6% - had no information). 82% of those questioned would be happy to use open access courses of the world’s leading universities while preparing for their practical classes and independent works (12% have a language barrier).

The flexibility, interactivity, educational cooperation and social importance of the electronic educational resources should be supported by the openness of professors that introduce their courses to Moodle, and the motivation of students to advance their educational level by all accessible, effective and modern means.

REFERENCES

Usyugova V.N. (2010). Practicum of learning opportunities for working in the Moodle distance teaching system. (pp.34-44). Kazan The tutorial. TGGPU.
http://www.topuniversities.com/university-rankings
www.moodle.org
www.sakaiproject.org
www.atutor.ca
www.whiteboard.Sourceforge.net
www.blackboard.com
www.gradepoint.net
www.desire2learn.com
www.learn.com
http://zilant.kpfu.ru/
http://bars.kpfu.ru/
http://tulpar.kpfu.ru/
http://ocw.mit.edu/index.htm