Chapter 29

Design of the E-Systems for Training and Researching With Tools of Cloud Services-Based Stereo and 3D Content

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ABSTRACT

The purpose of this chapter is to discuss the development of the tools for cloud services, which allow to organize mass production of multimedia interactive online services of the Real Estate for consumers from around the world, based on stereo and 3D-content and on the organizational model where content (text, pictures, video, animation, tests, etc.) are prepared by professionals from Penza State University, Russian State University for Tourism and Services and HHH University, and the automated assembly output, including its localization (translation) to other languages with the aim of exporting them via the Internet, provides the instrumental software package of Multimedia Technologies Ltd. The E-Systems is using in the academic master's program, developed by the Russian State University for Tourism and Service. This Master's Program is international and is based on E-Learning Systems, uses the techniques, software and technology of Estimation and Control in Sliding Mode by Prof. Vardan Mkrttchian.

INTRODUCTION

Solutions to the problem of free and mass access to high-quality training courses, regardless of the place of residence and student status has led to massive open distance learning courses MOOK that are implemented in the Internet environment. The widespread recognition MOOK in the world has shown that the method of teaching requires an examination of their methodological foundations for the introduction of elements in intramural and remote learning process in Russian universities. Analysis of projects, which are sometimes called electronic universities, such as Coursera, Udasity, EdX, Khan Academy led to the conclusion that this is the most promising market, which has made a revolution in education for 1-2 years.

The schemes of the learning process in all MOOK are very diverse. Prospective student choose the Internet and record a relevant course. Student activity includes work in lectures, performing tasks, testing, job forums to discuss assignments and problems. In addition, a student may take final exams for certification. The theoretical material in the course is a lecture with breaks every 2-10 minutes. Each part of the lecture ends with a test, quiz or control issues for understanding. Lectures often represented in the record. Webinars, which are remote interactive lectures, which are common prior to the course in Russia, MOOK is not used.

The practice of filing of theoretical material and formulas using a graphics tablet method proposed www.KhanAcademy.org, when the teacher brings voice training information while making explanatory graphs, charts and figures. This can be interpreted as a return on the new electronic level to the "Cretaceous" period of study with the help of the board, chalk and voice teacher. In this case, the principle of development is clearly visible phenomenon in a spiral, which we were taught in Soviet philosophy course.

Workshops are presented in the form of all sorts of jobs and remote virtual laboratories. The main efforts of the authors and course developers focused on the automation of test results of their assignments. In addition to job-choice questions, and questions with brief immune response, as video lectures, developed assignments in mathematics, with algebraic expressions, as well as the derivation of formulas and proofs. In tasks can be checked the correct model, whether it be financial models from the course of business, the physical model of the courses on science and technology, or quite complex programming tasks.

To control the activities of students used an independent and cross (mutual) evaluating students work with each other. Only the final control measure takes full-time teacher in a case where it is necessary to issue a certificate. Final certification is carried out internally in a specially organized place.

For humanities organized online discussion forums as one of the options for jobs at courses in humanities. Forum is viewed as:

- A place where people can ask questions and help each other;
- A place where people can express their feelings about the course and receive support and encouragement;
- A place where there may be additional information related to the course;
- A place where students can communicate with other students to form study groups, organizing real meetings for communication and collaborative learning.

Much attention is paid to cooperation. Students cooperate in various ways. Firstly, there is a forum of questions and answers, where some students can ask questions and others answer. Terms of cooperation in detail painted on the course site. For example, Udacity encourages students to create a community to

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