

Методичні аспекти

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DISTANCE LEARNING OF STUDENTS STUDYING ESTIMATION OF MEASUREMENT UNCERTAINTY IN THE FRAMEWOK OF INTERNATIONAL COOPERATION BETWEEN UNIVERSITIES

The area of the Information and Communication Technologies (ICT) is a rapidly developing area which provides various opportunities to be used in education. This paper first goes through different ICTs, in particular the Web technologies which are extensively used in the field of education. The paper presents the objectives and expected results in the educational process for students from two universities taking part in the distance learning program, as well as the results obtained when using the social media technologies. Finally, the paper suggests the approach and social media technologies to be used for optimizing the learning process of distance students.

Keywords: *educational process, distance students, social media technologies.*

Introduction

Various efforts have been made in several domains to test the Web 2.0 social media technologies and the opportunities they can provide, however, in the area of education there is much left to be done and the opportunities and benefits from those technologies are expected to be promising. The ICTs and the use of modern technology such as Web 2.0 for purposes of distance education are manifold, as well as its characteristics.

The characteristics of E-learning based on modern technology allows people to choose the material, time, place of learning, etc. appropriate to them (Soni, 2010). The virtual environments give possibilities to place data, information and to navigate, searching possibilities, etc. The Podcasting or other similar technologies are also increasing the possibilities of distance education since they provide digital media files such as audio or video to be used for distance e-education purposes. This results in students being able to go through the material when it is convenient for them. Other technologies that are penetrating the education area are the mobile devices. It is rather easy nowadays for any person to acquire mobile phones such as iPhone and HTC, which are by their characteristics such as big screen and wireless connectivity adequate for m-education.

Distance learning program as a part of exchange agreement between Informatics Dept of KhNURE and Informatics Dept of LnU

In today's world of higher education it is very important to use maximum resources to facilitate communication between students and teachers, providing stu-

dents with more opportunities for a comprehensive study of the material along with the personal development.

Also, it is important to test these technologies in the area of education, especially distance education to be able to optimize the quality of the distance learning.

This paper investigates the social media technologies, i.e. Web 2.0 technologies for distance education proposed for Master students from the University of Ukraine, KhNURE and Linnaeus University, Sweden. The paper goes both through the objectives and expected results in the educational process for students from these two universities taking part in the program and the result achieved after applying the social media technologies. The paper finally suggests the approach and social media technologies to be used on the basis of the result of the current study with the aim of optimizing the learning process of distance students.

We see the international cooperation between universities and using Internet technologies as an integrated part of educational courses as the top priorities for the implementation of this program.

The Informatics Department of Linnaeus University (LnU, Sweden) has had an exchange agreement with the Informatics Department at Kharkiv National University of Radio Electronics (KhNURE, Ukraine) since January 2010. This agreement has facilitated both student exchange (mostly Ukrainian Master students visiting Sweden) and teacher exchange (in both ways). Apart from the general benefits close international collaboration (experience, contacts, etc.) is being developed.

As a part of this cooperation agreement a lecturer from Linnaeus University came to KhNURE with an official visit and gave lectures to the third year students majoring in Informatics. This course was optional for

students. The course topic was «Strategic planning for information systems. Estimation of measurement uncertainty».

The course structure was as follows: within 2 weeks the Swedish lecturer was giving 5 lectures and 2 consultations. After lectures had finished, students formed a group and received tasks which they had to prepare until the next check point – the final visit of the LnU lecturer as a part of this course. During his stay in Sweden the lecturer advised students over the Internet, then he came again to KhNURE and then students made presentations (protect) of their tasks, took an exam and received a final course grade.

One of the main objectives of this experimental course was using Internet technologies (e.g. social networks) for more productive communication between the teacher and students, especially when they are in different countries.

Thus, while teaching the course such Internet technologies as Facebook (www.facebook.com) and V Kontakte (www.vkontakte.ru) were used where a special group was created for students to communicate with the teacher and with each other, receive assignments, view new materials for the course, exchange ideas, ask each other and the lecturer questions. Moreover, the lecturer used Adobe Connect to advise and consult students. The main task was to investigate how using Internet technologies will contribute to a better assimilation of material by students and a higher level of communication between students and the teacher.

Results and discussions

In order to adopt a comprehensive approach to the issue of investigating the effect of using Internet technologies as a means of improving the quality of the learning rate, we decided to do a questionnaire survey of students. The results showed that students really did not have a sufficient depth of communication with the

teacher while participating in the program of international education. Moreover, communication by e-mail did not work because it did not achieve 'presence effect'.

The questionnaire results also showed that using social networks allows students to create an atmosphere of solidarity in solving problems assigned by the teacher, as well as provides with better visible consultation when students can see not only their questions, but questions of their colleagues, which allows them to expand their horizons and understand the task more deeply (Kaplan, 2010).

Using Adobe Connect gives the 'sense of presence', which students need, so they can directly communicate with the teacher by capturing intonation, emotion and clarifying questions to understand tasks and the course in general better.

In conclusion we can say that the Web 2.0 social media technologies and the opportunities that they provide are very useful for both students and teachers which choose the material, time, place of learning, etc. appropriate to them. And it is very important to use Internet technologies which will contribute to a better assimilation of material by students and a higher level of communication between students and a teacher.

References

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ДИСТАНЦІЙНЕ НАВЧАННЯ СТУДЕНТІВ, ЯКІ НАВЧАЄТЬСЯ ОЦІНЦІ НЕВИЗНАЧЕНОСТІ ВИМІРЮВАНЬ У РАМКАХ МІЖНАРОДНОГО СПІВРОБІТНИЦТВА МІЖ УНІВЕРСИТЕТАМИ

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Сфера інформаційно-комунікаційних технологій (ІКТ) є областю, яка стрімко розвивається і з'являється можливість використання ІКТ в різних сферах освіти. Ця стаття описує різні ІКТ, особливо веб-технології, що використовуються у сфері освіти. Представлені цілі, очікувані результати в освітньому процесі програми для студентів між двома університетами, а також результати використання соціальних медіа-технологій. В заключній частині статті пропонуються деякі підходи і соціальні медіа-технології, які можуть бути використані для оптимізації процесу навчання дистанційних студентів.

Ключові слова: освітній процес, дистанційні студенти, соціальні медіа-технології.

ДИСТАНЦИОННОЕ ОБУЧЕНИЕ СТУДЕНТОВ, ОБУЧАЮЩИХСЯ ОЦЕНКЕ НЕОПРЕДЕЛЕННОСТИ ИЗМЕРЕНИЙ В РАМКАХ МЕЖДУНАРОДНОГО СОТРУДНИЧЕСТВА МЕЖДУ УНИВЕРСИТЕТАМИ

Е.С. Сакало

Сфера информационно-коммуникационных технологий (ИКТ) является областью, которая стремительно развивается и появляется возможность использования ИКТ в различных сферах образования. Эта статья описывает различные ИКТ, в особенности веб-технологии, используемые в сфере образования. Представлены цели, ожидаемые результаты в образовательном процессе программы для студентов между двумя университетами, а также результаты использования социальных медиа-технологий. В заключающей части статьи предлагаются некоторые подходы и социальные медиа-технологии, которые могут быть использованы для оптимизации процесса обучения дистанционных студентов.

Ключевые слова: образовательный процесс, дистанционные студенты, социальные медиа-технологии.