The Use of Learning Management System projects for teaching a foreign language in the university

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Abstract

The rapid penetration of web-based technologies into our social life creates challenges both for teachers and students to face. The purpose of the paper to dwell upon the implementation of social media as web-based technologies into the educational environment in the university. Social media application is considered at macro and micro levels within the university structure. Particular attention is paid to the description of LMS system at a macro level and LMS products to support a particular discipline at a micro level. The authors propose the idea that particular pedagogical conditions must be created for successful deployment of the technologies. The participative approach is suggested as a basis of teacher-student collaboration.

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1. Introduction

New technologies play an important role in everyday life of most people in developed world. It is only natural that school system also has to react to this situation and has implemented information technologies into the educational process. On the government level, information technologies were incorporated into strategic planning and curricular documents not only as an independent subject but also as a tool for teaching. However, the most important thing about using information technologies in education is not the governmental policy but teachers

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themselves; their attitude towards technologies, their skills to work with them and to involve them into teaching and learning, their willingness to further education in this field.

The challenges that both teachers and learners are faced with are associated with the tools, technologies and systems of e-learning. E-learning is considered to be the third learning system that makes use of various electronic technologies, forms and components as its primary means of learning and teaching (Snyder, 1998; Rosenberg, 2001; Bowman, Holmes, and Swan, 1999). Both educators and learners have to choose from the variety of forms when being in a new educational environment. E-learning involves various technologies (TV, the internet, computers, software products for education etc), various components (e-books and dictionaries, e-libraries etc), various formats (e-learning courses and programmes, virtual learning centers, online programmes, virtual universities). More than 100 web-based technologies and software products are being used for educational purposes by the teachers and learners worldwide. Social media are topping the annual list of the most popular tools for learning (according to Center for Learning and Performance Technology—CALPT). Social media are considered to be an integral part of e-learning nowadays (Turgeon, 1997; Dalton, Liu, 2010). Many researchers point to the educational potential of social media tools (Chen, Bryer). First of all, social media expand the opportunities to participate, collaborate, find and share information, reflect and learn together which result in better learning. Secondly, an active involvement of social media provides better motivation and commitment, as it enriches the possibilities for creating lessons that students find more interesting and challenging. With new media it is possible to achieve greater diversity in teaching and exceed traditional classroom training. Besides, students get better media and IT skills when social media are used actively in class and that students get better prepared for the contemporary society where digital media are dominant.

We would like to focus the attention on the types of web-based technologies which are used by the authors for English language teaching (ELT) in the National Research University Higher School of Economics in general paying special attention to a specific LMS based products created as non-institutional learning platform for teacher-student collaboration. In our research we mainly describe the implementation of institutional and non-institutional web-based tools at formal and informal levels of T-S interaction.

2. Implementation of web-based technologies in the university at a macro level

2.1 Background

Web-based technologies are defined in different ways. In this paper we would use the definition advanced by Wankel (2010) who defines these tools as “any form of on-line technology or practices through which users create communities to convey information ideas, independent learning, entertainment, collaboration and personal messages and thus facilitates communication and interaction between individuals and groups”. Web-related technologies as social media are used in universities at a macro level (formal) and a micro level (interpersonal and informal) (Golder, Wilkinson and Huberman, Cummins). On a formal (macro) level social media, especially a social network, demonstrates how a large group of people are connected to one another (campuses, departments, faculties, groups etc). An informal level (micro) level consists of all the peers, friends, family and others – with whom one shares a social relationship (Golder, Wilkinson and Huberman).

Scientists note that social media at a micro level are used mainly for entertainment purposes and its educational potential is sometimes ignored by the educators despite its wide spread and popularity among students (Chen, Bryer).

Social media for teacher-student (T-S) collaboration can be classified into the following categories: blogs and microblogs (for example, Twitter), content communities (for example, YouTube and quizlet.com, podcasts etc.), social networking sites (for example, Facebook), collaborative projects (for example, Wikisites) (Kaplan, Haelein, 2010).

At a formal level most of these types are successfully integrated into the Learning Management System (LMS) based on a Moodle platform. Web-based platform, such as Moodle and Blackboard, have built-in wiki tools, which are designed to collaborate, share and build online content and are especially useful for learners who are separated by time and place. A Moodle platform is generally used to support blended learning and includes external
collaboration. In the computer dictionary LMS is defined as a software application or Web-based technology used to plan, implement and assess a specific learning process.

Different attempts have been made to discuss the effect Web-based technology might have on education. Kuhlenschmidt and Kacer (2010) highlight 3 possible kinds of technology impact on teaching. The authors state that:

1. technology has had a positive influence on teaching because students receive faster feedback, students have better collaborative learning experiences, students and faculty can be reached at any time, and learning can take place anywhere at any time
2. technology has had a negative influence on teaching because computers may act as a distractor in class, the use of computer-generated slides does not permit higher levels of learning, and instructors may use technology to distance themselves from students
3. technology has had no impact on technology - the brain is what controls learning not technology.

2.1 Learning Management System in the Higher School of Economics

The Learning management system (LMS) has been developed in the National Research University, the Higher School of Economics (HSE) Nizhny Novgorod since 2010. The purpose of the system is to increase the level and the quality of methodical, didactic, information support for educational process for all the participants: students, teachers, and managers of different faculties. LMS is aimed at achieving the following goals:

- enabling learning practices in the active environment of all the participants on-line and off-line
- enhancing students’ involvement into active educational process;
- creating conditions for active interaction between students and teachers;
- improving digital skills of teachers and students.

The priority is given not to technical and instructional consulting but better teacher-student (T-S) and teacher-teacher (T-T) interaction. It offers a more individual approach to learning and teaching. This system helps produce, manage and integrate knowledge in the higher school. Besides, the LMS can be used to develop a variety of educational products (for example, a virtual library of tests, interactive vocabulary practice programs, grammar activators, language laboratories, etc) to support the needs of particular groups.

The system offers obvious advantages and benefits but both teachers and students are reluctant to use the system. Implementation of the LMS in the university is associated not only with the merits that could be brought to the university but also with some criticism of the system itself. Usually teachers point out time consumption as well as frequent breakdowns of service to be the main disadvantages. Besides, teachers blame social media, Facebook in particular, for low level of students' spelling skills and grammar knowledge. Scientists in this field state that clear principles of implementation have not been developed yet (Pratt, 2005). In order to use the system effectively, the university in general (Ulmer and Leech, 2005) and lecturers and teachers in particular (Doherty and Honey) must play an active part in LMS integration processes. These two sides are equally important, as teachers should be interested to implement the system and willing to constantly improve their knowledge and skills while university management need to encourage teachers' involvement and help them overcome difficulties and problems.

2.3. Research and the Results

To better know what problems LMS users face in the HSE we conducted a research among the students and the teachers who learn and teach a foreign language (mainly English, German). We expected the users to share their positive experience when working in the LMS to find out more about the advantages and disadvantages of the LMS system. The research made it possible to identify the problems that discourage and the advantages that motivate the learners to work within the LMS system. Two sets of questionnaires were worked out to cover two target audiences: students and teachers. The questionnaires in the research ask about the problems and advantages of the system from the users’ point of view. The analysis of the responses pointed to the fact that the majority of students does not enjoy working in the LMS (53% respondents) and 47% of the respondents approve the use of the LMS and are
enthusiastic about it. The difference is not so great to give evidence that LMS is not attractive for students. As for
the teachers, 60% of the respondents think positively and are motivated to incorporate the LMS into teaching. One
quarter does not see the necessity to apply it unless it is imposed from above. 15% of the respondents think there is
no point using the system at all and consider it as only external need, without a real benefit for educational process
as it distracts students’ attention from the essence of the subject. Such unwillingness can be explained, to some
extent, by technological hurdles that make the usage time-consuming and effort taking.

According to the findings the main complaints about the system cover the following problems:

1. Problems with interface (small font, difficulty to find the necessary information, too many functions) - design
   and visual presentation.
2. Technical glitches (inability to get an access from home or a mobile phone, difficulty to attach or delete files,
   inconvenient message delivery system) - technology.
3. Openness of knowledge that on the one hand simplifies cheating, plagiarism, on the other hand, makes
   assessment and control system, teacher-student interaction more transparent - pedagogical aspect.

The most interesting finding for the research was the statistics showing that more than one third of the learners
out of 40 students-participants (32,5%) think that mail services or social networks are more convenient and less
consuming to share and disseminate the information. The students consider the LMS as an academic environment
imposed from above. That is why they prefer less formal and more relaxing ways to exchange and interact (Kern,
Baldissera).

The findings show that in general, the LMS as a web-based technology is considered to be an effective platform
for collaboration despite the difficulties and problems the users experience when working in the LMS. The teachers
must play a critical role in successful implementation of the system. The positive attitude of the teachers to the
system and awareness of its possibilities as a whole can be a critical factor to successful LMS integration into the
university structure.

3. Implementation of web-based technologies in the university at a micro level

3.1. LMS projectss: a platform for an informal social learning environment

Taking into account the theoretical conclusions and practical results of the research and psychological
prerequisites associated with the implementation of web-related technologies at a formal level we propose the idea
that the teachers should switch to less formal LMS projects and find non-traditional psycho-pedagogical approaches
how to build the atmosphere of collaborative learning and help learners develop through motivational sphere.
According to the psychological theory of activity advanced by Rubinstein (1940) the success and effectiveness of
learning activity is based on the interest the learner has towards the task he is doing. It is necessary to underline that
the processes of teaching and learning should not be opposed to each other. On the contrary, the process of teaching
is a unified process including both a teacher and the student and their interaction and collaboration.

The paper focuses mainly on the educational LMS projects as an opportunity for collaborative tasks. Using LMS
the authors in collaboration with the co-authors have created three LMS projects for teaching and learning purposes
to collaborate effectively with the students and engage them into studying process. In our case LMS products are
used not as the main tool but a scaffolding platform for collaboration at a micro level. As pointed out by
McLoughlin (2002) scaffolding is a form of learner support provided in a various ways, assigning a number of roles
and responsibilities for students, lecturers, instructors, experts and other participants in the educational environment.

3.2. Case study: VELL, Upgrade your Grammar, Words& Woerter

Virtual English laboratory VELL has been created in LMS and is aimed at providing a training course in the
English language at pre-intermediate level. The course combines different forms of ICT (podcasts, websites,
presentations, forums, online dictionaries, interactive tests, flashcards, video etc) and due to this can become a part
of blended learning. Younger participants (students) can play the role of active participants in education through the
system of forums and wiki sites.
Interactive bilingual German-English dictionary *Woerter@Words* is developed to focus learners’ attention mainly on the vocabulary. It is designed for Russian students learning 2 languages at one time: German and English. The idea is to practise learning German through English language.

LMS library of grammar tests *Brush up your grammar* is designed to master basic grammar rules and can be tailored to any group of learners as the material covers as elementary grammar as well as complex grammar rules.

The aims of the projects are the following:

1. to support the teaching of the foreign language in the university by tailoring the LMS products to the individual needs of a particular target audience of the course;
2. to reduce time-consuming process of producing, processing and disseminating information for English classes;
3. to increase personal involvement of students in learning in the university. It is likely to create a personalized learning environment for the participants to take an equal share in learning process despite their individual space and learning cycles. The coordinator (the teacher) monitors only the outcome of the performance. The forms of the cooperation can be the following: student-student, student-computer, student-teacher.

LMS is believed to offer a flexible pattern of interaction. The advantage of such a flexibility allows to face any external and internal challenges (age factor, cultural diversity, psychological reluctance etc)

Special attention is paid to the advantages offered by such technologies and products. The most important advantages that e-learning provides can be summarized as the following:

- Innovative education characterized by increased transparency, availability and flexibility;
- individual approach to teaching and learning based on quick feedback, autonomy of the learners, variety and collaboration;
- interactive communication arranged with the help of variety of new forms, components and formats (hyperlinks, podcasts, video, on-line surveys, e-classes, e-libraries etc.);
- management of knowledge based on effective processing, storage and presentation of information;
- psychological development of learners connected with the improving divergent thinking, creativity.

New forms of asynchronous education require new approaches to teacher-student interaction. The role of the teacher becomes more complicated in the information society as teaching nowadays would require tutors to have the ability and pedagogical skills to combine new technologies with the traditional ones.

The aims that were achieved by means of the LMS projects implementation can be identified as the follows:

- testing of the effectiveness and viability of a new project in LMS. This training system proves to be flexible to individual needs and overall needs of the project as it opens more opportunities for formal and informal communication through off line, on line training sessions, web-based interaction.
- promoting ICT to the education community. The digital competence could be acquired and updated by everyone. In this connection much attention in the course is paid to raising the level of basic ICT skills.
- achieving the strategic goal of equity and inclusiveness in education at any level. The autonomy of each learner, the choice of tempo and time of assignments accomplishment can be varied. The program enables everyone irrespectively of personal, physical, social or economic circumstances update and develop skills and key competences of e-learning.

This type of interaction targets teacher-student and peer collaboration at an interpersonal level. This feature makes it less formalized and more customized and tailored to the needs of a particular group and individual students. Less academic level of collaboration helps identify problem zones of a target group and provide the immediate and instantaneous feedback through the system of forums and blogs. Moreover, it enables to use a variety of e-forms from texts with hyper links, interactive glossaries, on line tests, presentations, projects. Teachers can create a variety of interactive activities and products from virtual libraries that are collaboratively enriched by the sources and language laboratories focused on a certain problem area (listening skills or writing) to simple group discussions. Teaching and learning become more individualized making students feel less restrained and shy but more confident and relaxed.

3.3. **Criticism on social media**
Despite the advantages and opportunities LMS products provide, we cannot ignore some criticism on social media. The problems that can arise when implementing web-related technologies can be categorized in the following groups:

1. technological (for example, inefficient capabilities of the platform (size, interface, dependence on good internet connection etc);
2. psychological (hindering real life socializing, distortions in interpersonal relationships, personality clashes, etc);
3. educational connected with the content control and power sharing (reluctance to share the personalized content because of cheating, plagiarism, bullying; reliability of information uploaded into a collaborative project; language style etc) (Rambe, 2011);
4. pedagogical (difficulty of assessment of individual contribution and establishing criteria for evaluation, time, creativity and originality etc).

New forms of asynchronous education require new approaches to teacher-student interaction. The role of the teacher becomes more complicated in the information society as teaching nowadays would require tutors to have the ability and pedagogical skills to combine new technologies with the traditional ones. To make the best use of technology teachers should have positive attitude towards it, have enough knowledge and skills to work with it, be willing to involve it into teaching and learning and ready to further education in this domain.

4. Pedagogical conditions for implementation of web-based technologies in the university

New educational tools require that teacher-student (T-S) interaction must be changed. E-learning makes learners more autonomous and modifies the role of a teacher. So, the teacher is indispensable in planning, implementing, and supporting, correcting and adapting or changing knowledge delivery according to the educational needs.

New type of teacher-student interaction and communication as this is based on “different time-different place” mode (Ashley, 2003). The role of a teacher becomes more complicated: he/she takes the responsibility to create, develop, incorporate, coordinate, consult and share expertise with the learners. As teaching nowadays would require tutors to have the ability and pedagogical skills to combine new technologies with the traditional ones, the proposed participative approach can be used as a means of facilitating not only professional development of the teachers themselves but also pedagogical communication. Teachers are expected to work paying more attention to students’ autonomy and independence. Participative approach as a practice-oriented tactics of subject-subject interaction in the educational system involves solving problems based on the participation and involvement of students on an equal basis. Following Nikitina (2006), we believe that the application of a participative approach to T-S interaction will mean:

1. the right to have one’s own opinion in doing tasks and assignments;
2. counseling, seeking agreement between the teacher and students;
3. pedagogical communication on the basis of parity and tolerance and voluntary participation.

The application of the approach will be effective if certain pedagogical conditions are created and maintained. Firstly, the priority is given to the motivation of both teachers and students to interact and collaborate. Without establishing a friendly rapport with the target group and within the group at a micro (informal) level the instructor is unlikely to expect any positive outcome. Individual approach to every participant of education process lies at the basis of the participative approach. Finally, the education process must be technologised at a macro university level to enable teachers incorporate web-based technologies in every-day teaching and learning practices.

5. Conclusion

Web-related technologies help increase transparency, availability and flexibility of education, find an appropriate way to teaching and learning due to quick feedback, autonomy of the learners and collaboration, effectively process, store and present information. Educators have quite positive attitudes towards them, believe in strong motivational effect on students first and foremost due to finding an individual approach to every participant of educational process as the basis of interaction in the educational environment. Teachers are aware of problems and challenges
they have to face while implementing new technologies into learning practices, but believe that benefits outweigh negative aspects and difficulties.

One of the possible ways to overcome the problems while incorporating web-related technologies into the traditional system of education in general and teaching a foreign language in particular is the balanced combination of e-learning components and technologies with participative approach to T-S interaction. Web-based technologies can be categorized as motivational tool technologies appealing to students' cognitive, emotional, and behavioral engagement (Pino James, 2014) which are characterized by such attributes as: innovation, easy usage and sharing, content control, motivational appeal etc. The future investigations can be directed towards psycho-pedagogical and educational potential that these technologies possess and offer for teacher-student collaboration.

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