

## **WEB-BASED STUDENT PERSONAL LEARNING ENVIRONMENT IN CORRELATION WITH UNIVERSITY EDUCATIONAL ENVIRONMENT**

*The article reviews the theoretical basis for the entry of personal student learning environments to global educational environment based on Web 2.0 tools. Factors taken into account include a student, a teacher, educational institutions, administration, and also psychological factors.*

**Key words:** *educational environment, personal learning environment, potential learning environment, Web 2.0.*

**Introduction.** The rapid spread, development, and changes in technology may be used in society to fundamentally change teaching and learning. Technology and Internet tools allow students to actively communicate, and do homework using new methods. They are also involved in the presentation of the material, consolidation and organization of information. Nevertheless, universities officials and administration do not enough steps for the construction of the complete educational environment based on modern technologies. In the field of theoretical research there is a lack of studies of theoretical foundations for the entry of personal student learning environments into a global learning environment.

In world practice, educational information and communication technologies are seen as qualitatively new means of distribution and accumulation of knowledge. This is an urgent problem of rational use in the educational process, administrative activities, training of teachers and self-education. The basis for changes in the educational environment is the emergence of the World Wide Web second generation (2.0). Web 2.0 is an open web based technology, where users can not only read, but also edit and share information available in the virtual social environment. Openly published information on the web is attractive to students because of its availability, easy keeping and clear presentation [4]. Web 2.0 technologies in higher education lead to increasing social networking and free encyclopedic knowledge rate in higher education. In Ukrainian institutions, however, most frequently used online tools are existing traditional teaching instruments developed by educators: classes, training programs, electronic textbooks, encyclopedias, computer dictionaries, virtual learning environments. Web 2.0 is applied wisely and for developmental purposes only in individual cases at universities [4].

In response to public demand and new emerging technological opportunities scientists began a debate on the application of Web 2.0 technologies for

teaching and learning. Scholars provide research on Web 2.0 technologies application in schools (Barbour Pluogh, Richardson) [6] and higher institutions (Conole, Mayes, DeRosa, Rennie, Kennelly, Whittock, Conole, Culver, Njenga, Fourie etc. [2, 3]). These works examined different aspects of the application (student business administration, communication, education) and analyzed individual Web 2.0 tools (social networks, blogs). Some researchers (Anderson, Hall) see Web 2.0 as a potential informal and formal learning environment for students, but they don't emphasize the distinction between an educational environment and a learning environment [1].

**The aim** of the article is to reveal how the university educational environment factors allow students to create their own personal learning environments with web 2.0 technologies.

*The study methodology.* Study of Ukrainian and foreign scientific literature shows the adaptation of the learning environment and educational concepts, the overview of Web 2.0 environments, and educational opportunities for higher education institutions.

In the scientific literature, any learner surrounding environment, affecting their education, is called a learning environment. A learning environment in many cases is analyzed with the aim to improve and facilitate a learner, teaching and learning processes. According to Juceviciene, Lipinskiene [4] and other scholars general educational environment is a dynamic information space for educational activities, developed and exposed by an educator. Education in it needs supportive forms, methods, and tools, as well as other objects in the environment and its content, having certain influence on educational information and its spread to a learner. In this environment, a student works with a learning environment through educational projection of the learning environment, which is directly related to the educational environment factors.

The concept of the learning environment requires a definition of the educational environment associated with teaching and learning and the learning environment – associated only with learning)

[4, с. 37]. The learning environment in general is seen as a space in which a student, working with sources, acquires knowledge, skills and values through conscious activities that are based on the appropriateness.

Personal learning environments are chosen by each person individually according to their learning objectives, skills and experience identified in the environment. However, potential learning environment is a learner surrounding information space, which may become a personal learning environment.

Students form personal profiles according to their experience, values, motivation, and level of development. Depending on how a particular student identifies in an educational environment, a learning environment can completely disagree or completely meet the educational environment objectives. Students identify their personal learning environments in the educational environment concerning its means. In modern educational paradigm, a student can use not only the university educational environment of resources, but also self-govern other potential educational environments, including Web 2.0 in 4 ways to develop the potential of various students' personal learning environment.

In the first case the student's personal learning environment includes the whole educational environment as well as additional potential of learning environments. This option is perfect, because the educational environment is fully identified and used, therefore, is properly organized by a student and a student is enabled to search for more sources of information in various information spaces (library, practical life, the web). In the second case the student's personal environment includes only a part of the educational environment and the use of other information resources in free learning environment. Thus, the student identifies the educational environment resources in the learning environment more accessible or attractive. In the third case the educational environment for a student does not meet full educational needs and they do not use it to compose a personal learning environment, and apply other potential resources in the learning environment. The fourth option is the student's own personal learning environment which uses only educational environment because it meets their needs, and gives opportunities of other potential resources application.

Therefore the main educational problem is to compose a personal learning environment for students which will use all the potential of learning environments, along with the entire educational environment. It is very important for the development of an educational student environment to provide all the necessary resources and to provide the opportunity to learn. Thus, education needs to improve student's activities with providing the necessary support. It is indicated that educational environment must have a deep approach to promoting characteristics [4].

Researchers state that educational environment enables thorough learning, gives student autonomy and responsibility for their own learning activities, implies student involvement in learning activities. Moreover, an educator plays the role of an enabler, creating supporting culture and student resources

available with a variety of information. Active learning takes place: students solve real problems and reflect on them regularly, working in cooperation. It can be assumed that the formation of successful learning environments in the educational environment depends on these key factors: potential students, teachers' opportunities, institutional conditions, psychological climate and environmental educational organization features.

The created educational environment of the University allows students to use Web 2.0 technologies to create their own personal learning environments. The characteristics of an educational environment are:

1. Student opportunities or the conditions necessary for a student to learn Web 2.0.
2. Teacher opportunities or necessary conditions to enable a teacher to teach students with Web 2.0.
3. Institution conditions or educational institution, educational environment that enables students to create personal learning environments with the web 2.0.
4. Psychological climate between participants in the learning process (student-student, student-teacher).
5. Organization of the educational environment – educational elements of the environment and their laws, enabling students to learn the use of Web 2.0.

Student opportunities are identified as the main opportunities for students concerning their learning capacity [4, с. 75]. Students' learning capacity is a personal quality, leading to relationships with the surrounding educational learning environments, and the ability to transform them into personal learning environments. Whether a student can work in the environment depends on several conditions: competence, autonomy, awareness, existing experience, motivation, and individual learning style. Competence (knowledge and skills in the subject) is linked to the student's ability to absorb information in the educational environment and ability to use information communication tools, techniques, collaborate, ability to learn independently. Autonomy should be understood as the ability to be independent, reflecting and making decisions. Learning environment is based on the assumption that students should be able to adapt to a new style of learning and to new interactions with peers and teachers. Awareness shows a direct correlation between the time spent by students in a virtual learning environment, and the final settlement of the module assessments. The students' previous learning experiences may form prejudices and thinking frame, which would stop them or create their personal profile in the educational environment. Students must also understand why they learn and what the driving force is. Motivating a student will use more learning resources (potential learning environments) to achieve deep understanding of the subject. Learning success depends on how learning environments designed to meet every student's individual needs and abilities cover the need to learn at their own learning style. It is also important to assess the student's learning opportunities and material at home. Student material options determine how much time and resources a student can spend learning. In order to use a variety of Web 2.0 tools, students must have access to a computer.

Teacher-based factors in the development of students' personal learning environments with

Web 2.0 are: teacher's ability to act in the Web 2.0-based education (ICT literacy, subject didactics, didactics of e-learning), and an ability to become a students' learning empowerer (communicator, supporter of students).

In order to increase the real possibilities of the implementation of Web 2.0 tools-based learning in higher education institutions their authorities must meet the following conditions: both students and a teacher realize that student contribution and involvement affects achievement; and learning processes as well as products influence the final assessment [2].

Educational institutions should follow student-centred orientation to provide all the necessary material conditions (technology, internet access).

In addition, the development of students' personal learning environments with Web 2.0 includes such important organizational factors:

- Student learning objectives.
- Suggestive Educational Content (personalized changing content).
- Alternative activities (active and interactive activities).
- Sufficient resources.

**Conclusion.** Students' personal learning environment using Web 2.0 as a part of university's educational environment should meet five requirements: student opportunities, teacher opportunities, institutional opportunities, favorable psychological climate, and modern organizational paradigms.

A student can develop personal learning environments through Web 2.0 potential learning environments having adequate information technology literacy, ability to learn, self-governing, and access. To create a lecturer programmed educational environment they should be able to use Web 2.0 and to act as a tutor empowered. For the benefit of students' personal learning environments of Web 2.0-based formation an educational institution should follow the student-centered orientation and provide availability of the material in Web 2.0. The educational environment should be organized in a way that effectively applies Web 2.0 educational options.

In universities that have all the necessary tools and techniques for implementing active application of modern technologies and Internet in teaching and learning, students can create a personal educational environment, which accounts specially created solid and systematic educational environment of the university, as well as other potential educational environments, such as those containing Web 2.0. Web 2.0 environments are quite common and popular among students and faculty because they are available on most gadgets and have different levels of complexity. In such cases, interaction of internet environment and personal student environment can be effective only through the establishment of favorable psychological climate and proper organization of the educational environment of the university.

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## ЗАСНОВАНЕ НА ВЕБ 2.0 СТУДЕНТСЬКЕ ОСОБИСТЕ СЕРЕДОВИЩЕ НАВЧАННЯ В КОРЕЛЯЦІЇ З УНІВЕРСИТЕТСЬКИМ ОСВІТНІМ СЕРЕДОВИЩЕМ

У статті розглянуто теоретичні основи для входження особистих студентських середовищ навчання до глобального освітнього середовища з урахуванням засобів Веб 2.0. До уваги беруться чинники з боку студента, викладача, освітньої установи, адміністрації, а також психологічні фактори.

**Ключові слова:** освітнє середовище, особисте навчальне середовище, потенційні середовища навчання, Веб 2.0/ Веб 2.0.

**ОСНОВАННАЯ НА ВЕБ 2.0 СТУДЕНЧЕСКАЯ ЛИЧНАЯ СРЕДА ОБУЧЕНИЯ  
В КОРРЕЛЯЦИИ С УНИВЕРСИТЕТСКОЙ ОБРАЗОВАТЕЛЬНОЙ СРЕДОЙ**

*В статье рассмотрены теоретические основы для вхождения личных студенческих сред обучения в глобальную образовательную среду с учетом средств Веб 2.0. Учитываются факторы со стороны студента, преподавателя, образовательного учреждения, администрации, а также психологические факторы.*

**Ключевые слова:** образовательная среда, личная учебная среда, потенциальные среды обучения, Web 2.0./ Веб 2.0.

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*Дата надходження статті до редколегії 15.10.2014 р.*