ІННОВАЦІЇ

UDC 378.001.895

S. O. Nazarko, Candidate of Economic Sciences

THE VIRTUALIZATION AS INNOVATIVE TECHNOLOGY OF TRAINING PERSONNEL IN THE EDUCATIONAL SERVICES MARKET

Urgency of the research. *Due to the impact of space global informatization the modern person experiences the processes of changes in thinking and psychology of perception. Therefore, in designing virtual educational services should be considered the compliance of this type of service with the expectations and experiences of participants, and minimizing the requirements put before users in transition process to virtual learning.*

Target setting. *The present day considers Internet form of study as a serious alternative to conventional education. Therefore, this process should involve state institutions and businesses that can provide the financial and legal support.*

Actual scientific researches and issues analysis. *Research of the organization of open and distance learning is paid attention in the works of A. Vynoslavska, V. Voronkov, P. Lisovskyi and others. Problems of informatization and computerization of higher education and its transition into a virtual state has been considered by V. Biryukov, I. Devterov, O. Melnik, V. Pashkov, S. Stirenko.*

Uninvestigated parts of general matters defining. *However, the possibilities of a virtual environment are far from being fully studied, and conceal enormous potential.*

The research objective. *The purpose of this article is to identify the innovative specific nature of virtualization and the changes introduced in the educational services market.*

The statement of basic materials. *The article elucidates the influence of applied learning tools (computer equipment, software, etc.) on users. Virtual environment is studied as an innovative technology that should be used in various areas of educational environment.*

Conclusions. *Virtualization as an innovative process in the educational environment has both positive and negative effects and consequences.*

Among positive points can be considered greater access to an array of information, democratization of education, breaking boundaries in education, attending online-lectures and seminars. The negative points include: copyright infringement, ignoring the role of the author, growing distrust of the media, many modern people plunged in the virtual world and live a virtual life.

Keywords: *global informatization of space; plagiarism; consciousness manipulation; e-learning; information technology; self-education; self-development.*

УДК 378.001.895

С. О. Назарко, к. е. н.

ВІРТУАЛІЗАЦІЯ ЯК ІННОВАЦІЙНА ТЕХНОЛОГІЯ ПІДГОТОВКИ КАДРІВ НА РИНКУ ОСВІТЯНСЬКИХ ПОСЛУГ

Актуальність теми дослідження. *Через вплив глобальної інформатизації простору у сучасної людини відбуваються процеси зміни мислення і психології сприйняття.*

Тому, при проектуванні віртуального освітянського сервісу необхідно враховувати відповідності такого сервісу очікуванням і досвіду учасників та мінімізацію вимог, які пред'являються до користувачів при переході до віртуального навчання.

Постановка проблеми. *Сьогодення розглядає навчання через Інтернет, як серйозну альтернативу звичайній освіті. Тому, в цей процес необхідно включитись державним структурам та бізнесу, які можуть забезпечити грошову та правову підтримку.*

Аналіз останніх досліджень і публікацій. *Дослідженню організації систем відкритого та дистанційного навчання приділяли увагу у своїх працях О. Винославська, В. Воронкова, П. Лісовський та ін. Проблеми інформатизації, комп'ютерізації вищої освіти та перехід її в стан віртуальності розглядали В. Бірюков, І. Девтеров, О. Мельник, В. Пашков, С. Стіренко.*

Виділення недосліджених частин загальної проблеми. *Проте, можливості віртуального середовища вивчені далеко не в повній мірі і приховують величезний потенціал.*

Постановка завдання. *Виявлення інноваційної специфіки віртуалізації і характеру змін, привнесених нею на ринок освітянських послуг.*

Виклад основного матеріалу. *В статті з'ясовано вплив прикладних засобів навчання (комп'ютерної техніки, програмного забезпечення, тощо) на користувачів. Досліджується віртуальне середовище як інноваційна технологія, яку доцільно використовувати в різних областях освітянського простору.*

Висновки. *Віртуалізація як інноваційний процес у освітянському середовищі має як позитивні, так і негативні прояви та наслідки.*

Позитивними можна вважати доступ до більшого масиву інформації, демократизацію освіти, руйнування кордонів в освіті, відвідування online-лекцій і семінарів. Негативними є: порушення авторських прав, ігнорування ролі автора, зростання недовіри до інформації, багато сучасних людей потонули у віртуальному світі і живуть віртуальним життям.

Ключові слова: *глобальна інформатизація простору; плагіат; маніпуляція свідомістю, електронна освіта; інформаційні технології; самоосвіта; саморозвиток.*

Background research. Due to the impact of global information space in modern man the processes of change in thinking and psychology of perception. Daily "immersion" to monitor transfers universal perception in sighted thinking case where virtual reality is "objective reality" of our days, and the development of technology enhances ekranotsentrychnyh similar transformation.

ІННОВАЦІЇ

Accordingly, information technology significantly affect the social aspects of the educational services market, the structure of social interaction of all participants in the process of obtaining any information. Therefore, when designing the virtual educational services must take into account compliance of such a service expectations and experiences of participants and minimizing the requirements that apply to users when moving to virtual learning.

Problem setting. Due to the impact of space global informatization the modern person experiences the processes of changes in thinking and psychology of perception. Everyday "immersion" into monitors transfers human perception into "sight thinking" model, where virtual reality becomes an "objective reality" of present, and the development of screen centric technologies increases this transformation.

Accordingly, information technologies significantly affect social aspects of functioning of the educational services market, the structure of social interaction of all participants in the process of obtaining any information. Therefore, in designing virtual educational services should be considered the compliance of this type of service with the expectations and experiences of participants, and minimizing the requirements put before users in transition process to virtual learning.

The present day considers Internet form of study as a serious alternative to conventional education. Therefore, this process should involve state institutions and businesses that can provide the financial and legal support.

Analysis of researches and publications and unsolved aspects of the problem. The growth of scholarly interest in the virtualization problems is observed in various fields, including education. Increased attention to this phenomenon is connected with the development of ICT and their widespread use in the educational practice.

Research of the organization of open and distance learning is paid attention in the works of A. Vynoslavska, V. Voronkov, P. Lisovskyi and others. Problems of informatization and computerization of higher education and its transition into a virtual state has been considered by V. Biryukov, I. Devterov, O. Melnik, V. Pashkov, S. Stirenko.

However, the possibilities of a virtual environment are far from being fully studied, and conceal enormous potential.

The purpose of this article is to identify the innovative specific nature of virtualization and the changes introduced in the educational services market.

The main material. With the establishment of information dominance in the structure of social production and with the spread of information and communication innovations, we witness widespread inclusion of various fields such as economics, politics, education, science and art in cyberspace of the communication net in the Internet. It resulted in the virtualization of processes in these industries, and its products.

Virtualization in any of its manifestations is a promising and most profitable solution. Virtualization technology enables the user to access information from any terminal, including geographically remoted, and abstracting apart various components of IT systems [10].

Thus, everyday life of a modern person is impossible to imagine without participation of the constant information flow from different sources: from television, on the Internet, from a tablet or mobile phone, and so on. Accordingly, the scale of the impending space global information is increasing from year to year.

Thus, according to the IDC research company, only in 2006 were created 161 exabytes of digital information (1 exabyte equals 1 billion Gb). This is 3 million times more than all the books written in the history of mankind.

Cisco's analysis showed that in 2013 the Internet traffic transmitted 667 exabyte digital information. In May 2015 the total number of digitized information in the world exceeded 8 exabytes (1 zettabyte equals 2^{70} standard (8-bit) bytes or 1024 Exabyte. In 2016 the volume of Internet traffic will exceed 1 zettabyte. According to the Cisco forecast, this amount will double by 2019 [4].

Speaking about Ukraine, the total Internet audience around the country, excluding the Crimea, has risen to 59% and amounted to 21.8 million users. These are the results of study conducted by Factum Group Ukraine [4].

ІННОВАЦІЇ

However, only the fifth part of all the information is of particular practical value. So, the situation is unclear, the introduction of new technologies increased the opportunities of accessing various information, but the paradox of today is that the more information available, the less is the knowledge acquired.

However, information and communication innovations have launched the phenomenon of plagiarism, which, unfortunately, is particularly common in student and academic circles.

Plagiarism in the student environment is a particular threat, while it makes impossible to realistically evaluate knowledge and skills, complicates the evaluation process of results by the teacher, prevents developing students' creative thinking. Besides, it prevents integrating into the international educational and scientific environment, because plagiarism is not perceived by the world scientific community.

Another negative phenomenon of the global information space is mind manipulation in the Internet. Changes in social perceptions of reality itself are due to the increasing number of communication flows and the expansion of mass information system. And there is the consciousness manipulation when the Internet is providing a variety of information, it does not allow a person to assess the event personally.

Typically, the information presented on the web has a convincing character, as the information flow on the Internet is subject to the control by a small group of the society.

Thus, information technologies are developed in order to achieve the intended result. This is a systematic process, not a random one – aimed at influencing the audience. Speaking about higher education institutions, the most important manipulative technology includes messages on the Internet sites: coverage, concealment or distortion of the information, that is – creating its version, which is achieved by minor variations in different directions, and they must be invisible, and operate on the subconscious level and be perceived by the user [6].

Listed above are far from all negative aspects of using the Internet, they can be supplied by the following:

- a negative impact on the self-organization, and knocks the regime: time is spent unproductively (reading news / blogs, social networks, etc.);

- mental health disorder due to: virtual communication in the network, displacement of desire to think over, remember, and critically evaluate submitted information; the emergence of Internet-addiction; long sitting in front of the monitor, which leads to deterioration of eye-sight, insomnia, obesity and other disorders in the body [2].

So, the Internet can be considered in two ways: on the one hand, it leads to a certain alienation from social reality, on the other hand – to personal development.

Each year the higher education market finds itself in a reforming state; when old methodologies are not working properly, and the new methodologies are constantly changing, and trying to keep up with the demand of the potential applicants. This situation encourages young people to educate themselves and is a condition of development and self-identification and part of lifelong learning.

It should be stressed that recently inter-specialty migration has begun: people change the career grounding on the salary and demand in the labor market, and this is impossible without getting new knowledge. In this aspect, online courses and online education system are becoming part of the population self-education.

Taking the example and experience of the English-speaking platforms in Ukraine, starting from 2014 were developed several domestic platforms, like the Prometheus platform, IT LABS software, "Teleportus", "WebPromo Experts", whereby the Internet education for Ukrainian Internet users is real.

These online projects give impetus to action, try to teach the user to think, make decisions, take on responsibility and get the educational purpose.

Foreign projects include: Coursera, Udacity, Khan Academy, Udemy, Duolingo – powerful educational platforms, which outlined a new trend towards democratization and virtualization of education [10].

The use of virtual reality technology in education has led to a virtual educational environment, which made continuous self-realization possible, and self-development of a free, active and creative person.

The virtual educational environment is a creative environment, in which studying is possible due to students' internal high motivation, their emotional rise and positive, optimistic mood.

ІННОВАЦІЇ

The introduction of ICT using multimedia technology and remote access to information and educational resources promote thorough ensure of continuity of virtual learning, and possibility to choose a plan and teaching methods facilitates detection and identification of individual creative abilities of students.

Distant education system enables a person to master professions of the accountant, economist, manager, advertiser, marketer, journalist, lawyer or programmer, but pharmaceutical skills and knowledge cannot be bought virtually. However, all depends on the ultimate goal: graduation, the acquisition of practical skills or advanced training.

Knowledge of a foreign language allows you to get distantly education abroad. Of course, distance education is less expensive than the traditional education, but it is still a pretty noticeable amount. Particular attention should be paid to the point, what document is issued after graduation - a diploma, certificate, license or nothing.

Distance learning formally suits everyone, but it is especially effective for busy people, with limited mobility and geographically remote users [1]. Meanwhile, a person should have an appropriate nature. Namely – a high degree of self-organization, otherwise distance learning is not suitable.

Conclusion. The latest informational computer technologies made a huge impact on the world economy in general and the market for educational services in particular, and created the possibility of its virtualization. Virtualization as an innovative process in the educational environment has both positive and negative effects and consequences.

Among positive points can be considered greater access to an array of information, democratization of education, breaking boundaries in education, attending online-lectures and seminars. The negative points include: copyright infringement, ignoring the role of the author, growing distrust of the media, many modern people plunged in the virtual world and live a virtual life. This in turn leads to the degradation of communication.

Despite all the contradictions, education today is a combination of different forms of learning and modern technologies, where people can themselves determine the optimal combination.

References

1. Biryukov, V. (2015). Elektronna osvita: instruktsiia po zastosuvanniu. [Electronic education, instructionon the application]. Retrievedfrom : http://it-ua.info/news/-2015-/03/16/lekc-tehnoparku-mayster-klas-vladislava-bryukova-elektronna-osvta-nstrukcya-po-zastosuvannyu.-html [in Ukrainian].

2. Vynoslavska, O. (2014). Doslidzhenniav plyvu IKT na samoorhanizatsiiu i samorozvytok osobystosti [Theinfluenceof ICT on self-organizationand self-development of personality]. Vestnik NTU "KPI". Philosophy. Psychology. Pedagogy. Issue 2, pp. 47-54 [in Ukrainian].

3. Voronkov, V. (2015). Internet yak hlobalna tendentsiia rozvytku informatsiinoho suspilstva [Internet as a global trendof developmentof the Information Society]. Gilea: ResearchJournal: scientific research journa. Kyiv, "Publisher" Gilea ", Vol. 93 (2), pp. 174-179 [in Ukrainian].

4. Hlobalnyi internet-trafik maizhe dosiah zettabait [Global Internet traffic almost reached zettabayt]. (2015). Retrieved from :http://www.3dnews.ru/927990]. [in Ukrainian].

5. Devterov, I. V (2012). Sotsializatsiia liudyny u kiberprostori [socialization in cyberspace] Kyiv: NTU "KPI" P. 360 [in Ukrainian].

6. Lisowski, P. (2014). Fenomen Internetu yak zasib manipuliatsii svidomistiu v ukrainskomu suchasnomu sotsiumi [The phenomenon of the Internet as a means of manipulation of consciousness in the modern Ukrainian society].Retrievedfrom :http://novyn.kpi.ua/2014-3-1/04_Lisovskii.pdf) [in Ukrainian].

7. Melnyk, O. (2013). Vid klasychnoi oflain-osvity – do virtualnoi [From classical offline education - to virtual]. Retrievedfrom :http://www.imena. ua/blog/online-education-

Література

1. Бірюков, В. Електронна освіта: інструкція по застосуванню. [Електронний ресурс] – Режим доступу : http://it-ua.info/news/-2015/03/16/lekc-tehnoparku-mayster-klas-vladislava-bryukova-elektronna-osvta-nstrukcya-po-zastosuvannyu.html.

2. Винославська, О. В. Дослідження впливу ІКТ на самоорганізацію і саморозвиток особистості / О. В. Винославська // Вісник НТУУ «КПІ». Філософія. Психологія. Педагогіка.– 2014. – Вип. 2. – С. 47-54.

3. Воронкова, В. Г. Інтернет як глобальна тенденція розвитку інформаційного суспільства / В. Г. Воронкова // Гілея: науковий вісник. – 2015. – Вип. 93 (2). – С. 174-179.

4. Глобальний інтернет-трафік майже досяг зеттабайт. [Електронний ресурс]. – Режим доступу : http://www.3dnews.ru/-927990].

5. Девтеров, І. В. Соціалізація людини у кіберпросторі : монографія / І. В. Девтеров. - К. : НТУУ «КПІ» – 2012. – 360 с.

6. Лісовський, П. М. Феномен Інтернету як засіб маніпуляції свідомістю в українському сучасному соціумі [Електронний ресурс]. – Режим доступу : http://novyn.kpi.ua/2014-3 1/04_Lisovskii.pdf).

7. Мельник, О. Від класичної офлайн-освіти – до віртуальної [Електронний ресурс]. – Режим доступу : http://www.imena. ua/blog/online-education-ua.

8. Пашков В. В. Віртуалізація освіти : пріоритети і ризики / В. В. Пашков // Гілея : науковий вісник. - 2014. - Вип. 86. - С. 288-291.

9. Стіренко, С. Г. Ефективне застосування технології віртуалізації для підвищення роботи ІТ інфраструктури / С. Г. Стіренко, Ю. А. Тимошин // Проблеми інформатиза-

ІННОВАЦІЇ

ua [in Ukrainian].

8. Pashkov, V. (2014). Virtualizatsiia osvity : priorytety i ryzyky [Virtualization education:priorities and risks]. Proceedings of "Gilea: Research Bulletin". Issue 86, pp. 288 - 291 [in Ukrainian].

9. Stirenko, S., & Timoshin, A. (2009). Efektyvne zastosuvannia tekhnolohii virtualizatsii dlia pidvyshchennia roboty IT infrastruktury [Effective use of technolog ytoenhance virtualizationof IT infrastructure]. Problems of information and management. 4 (28). pp. 125-130 [in Ukrainian].

10. Tema tyzhnia: v yakomu stani onlain-osvita v Ukraini? [The question of the week: the state of online education in Ukraine?/ Information portal Retrieved from : http: http://magneticone.org [in Ukrainian].

ції та управління. – 2009. – № 4 (28). – С. 125-130.

10. Тема тижня: в якому стані онлайн-освіта в Україні? [Електронний ресурс] / Інформаційний портал. – Режим доступу : http://magneticone.org.

Бібліографічний опис для цитування :
Nazarko, S. O. The virtualization as innovative technology of training personnel in the educational services market / S. O. Nazarko // Науковий вісник Полісся. – 2017. – № 1 (9). ч. 2. – С. 81-85.

Nazarko S. O. The virtualization as innovative technology of training personnel in the educational services market