Original Article

Cyberpedagogy in the Context of Digitality

Dilmurad N. Mamatov[1], Shoira B. Bekchonova[2], Yulduzkhan S. Polvonova[3], Abrorjon Z. Makhmudov[4]

[1]Professor, Tashkent State ADJOIU University, Tashkent, Republic of Uzbekistan.

[2]Associate Professor, Tashkent State Pedagogical University named after Nizami in Tashkent, Tashkent, Republic of Uzbekistan.

[3]Researcher, Presidential Educational Institutions Agency Creation under the Name of Ogahi Khiva, Uzbekistan.

[4]Researcher, Namangan State University, Namangan, Republic of Uzbekistan.

Abstract

The purpose of the work on the development of education in cyber pedagogy is to clarify and describe the goals, objectives, object, subject, categories, subjects, principles, theoretical and methodological bases and technologies of cyber pedagogy as a pedagogical science in the XXI century. Processes and Methods Theoretical analysis of the literature on the digital transformation of education, cybersocialization, the origin, formation and development of cyber pedagogy, cited by our scientists in the scientific literature. Based on the results, the theoretical and methodological bases and technologies of cyber pedagogy are described. The importance of combining technical and educational technologies in cyber pedagogy is highlighted.

Keywords: Cybersocialization, Cybercommunication, Digital Transformation of Education and Upbringing, Digitization of Education, Pedagogical Technologies, Cyberpedagogy.

DOI: 10.47750/pnr.2022.13.S03.268

INTRODUCTION

International and national conferences on globalization are taking place in the digital age. The theme of the event was the intensification of the process of digitization of education due to a new pandemic of coronavirus infection, which has forced educational institutions around the world to switch to distance learning.

Digitalization of the educational process is one of the leading global trends. Information and communication technologies not only allow us to overcome the barriers to learning for all, but also set new tasks for us.

It is known that the educational process consists of two components - education and upbringing. Distance and online education address the problem of knowledge transfer, skills development and skills formation required in the modern labor market. At the same time, the task of educating the individual and shaping his moral character in the context of digitalization is particularly relevant. As a result of cybersocialization in the XXI century, man is now mastering social norms and rules using information and communication technologies. The virtualization of social networking practices poses new research challenges that are the subject of online roundtable discussions. [9]

“Digitization of education marks the beginning of a new phase in defining the fundamental foundations for the knowledge, accumulation and transmission of knowledge. Ordinary postulates (lat. Postulatum - demand) - a principle or rule that is accepted without proof in any scientific theory, but has no basis.) Are replaced by new ones, which in turn are fundamentally new theories, approaches and requires the development of a methodology.

Perspective directions of digitization of higher education, in particular, artificial intelligence technologies to automate management processes in education, as well as the need to develop a blockchain to record their educational achievements in order to form a "digital portfolio" of students. We can pass. [6,8].

At the end of the XX-XXI centuries, socio-economic development, technological growth and active cyber-socialization of mankind laid the foundation for the global trend of digital transformation of education and the emergence of cyber-ontological approach. In turn, this trend has revealed a number of problems, the solution of which goes beyond the scope of traditional pedagogical science. However, the problems of digital transformation of education at different levels of science and practice arise: [1]

They are all represented by five main groups, from theoretical and methodological to specific methodological:

1. Problems of reconsideration of theoretical and methodological bases, paradigms, attitudes, goals and objectives of education, taking into account the use of the possibilities and limitations of cyberspace as a real parallel environment of modern human life.
2. New realities of cyberontology and regulatory issues, the need to create a solid legal framework for the digitization of education, regulation of the activities,

rights and obligations of all participants in educational relations.

3. Psychological and pedagogical problems associated with the consequences of scientific and technological progress. On the one hand, "gadgeting vital activities" - often erratic and unconscious use of computers, smartphones, tablets and other technical devices - leads to "virtual autism", the negative consequences of clip thinking, speech, attention and memory development, disorders. On the other hand, this process also provides positive opportunities (public self-expression, increased learning independence, relatively safe experience, operational visual modeling, activity-based design, digitization of performance results, network learning, quick and flexible response to new conditions giving etc.
4. Problems of reconsidering the role and position of all participants in educational relations. The course, which focuses on the individualization of learning activities, continues in an almost unchanging environment created for mass education, and the main focus is on the student's activities as a subject. There is also a tendency for teacher roles to change exponentially and flexibly (be it a teacher, or mentor, or educator, or curator, or assistant, moderator, coordinator, judge, observer, meaning creator, etc.) 'should be. [2,3]
5. Specific methodological problems directly related to specific educational activities (first of all, the problem of adaptation of existing methodological materials to electronic digital format and the development of new ones; high efficiency of educational activities and results the technology that provides, the problem of choosing or creating methods); the problem of using digital technology for technology, technical difficulties, and so on.

METHODOLOGY

Theoretical and Methodological bases of Cyber Pedagogy

Cyber pedagogy is primarily based on activity, competency-based, cyber-ontological approaches:

- The activity approach in cyber pedagogy provides a direct evolution of human socialization and cybersocialization through special initiative, organizational and conscious interaction of teachers and students. In the process of such activity, they effectively carry out their subjectivity, motivational activity, gain relevant experience, knowledge, skills, form and develop the necessary competencies.
- Competence-based approach in cyber pedagogy allows to reveal the educational potential of cyberspace, which provides not only the formation of students' competencies, but also focused and managed development - the dynamic combination of knowledge, skills and abilities and their use in the main activity should teach.
- Cyberontological approach in cyber pedagogy substantiates and allows to take into account the modern conditions of human life, the formation and development of the individual in the XXI century, as well as the role and evolution of the main (general cultural), specific (educational) subject. Metamorphoses, general professional and professional (special) cyber competencies required for effective cyber socialization of the student [3].

It should be noted that through the cyber-ontological approach, both activity-based and competency-based and other approaches are manifested and revealed.

Classical approaches include ontological, cognitive, anthropological, axiological, synergistic, acmeological, systemic, person-centered, subjective, personality-activity, contextual, individual, and technological approaches [2,4];

This allows us to talk about the extreme flexibility and versatility of cyber pedagogy in research and practice.

Theoretical foundations of cyber pedagogy are presented, first of all, the theory of human cybersocialization and psycho-age ontology, social education in the context of socialization, person-centered vocational education, personality psychoplasticism in education, the phenomenon of personality development and existence. [6].

The modern audience is ready for continuous use of media content. Researchers say modern media consumers are trying to create content with authors. Some users are interested in global news due to entertainment content, meeting the needs. This can be a simple conversation topic. Despite the globalization of the world, all these needs are still at the center of the work of journalists. The emergence of the blogosphere fills journalists. We analyzed one popular blogger. He repeats and interprets the news in his own way. It often refers to subscribers who have a specific purpose. He also critically evaluates events and addresses verbal aggression strategies. He gives himself the opportunity to openly criticize others. As the blogger admits, he often gets the information he votes from subscribers.

In developing cyber pedagogy, we must first focus on human psychology. In the creation of a new web project, programs based on human psychology, professional knowledge and skills are naturally applied, based on psychological laws and regulations. How color and shape work, how to build a psychological portrait of the future user, his motivation and needs should be taken into account. All this allows you to create a precisely calibrated tool that works not only technically but also psychologically successfully.

At the same time, psychology on the Internet has a great future, and new exciting points of use of force await psychologists. In particular, it is possible to help in forming the desired virtual image of the user or company, to develop a positive strategy for network behavior and, of course, to talk about different types of expert assessments and advice.

Cybersecurity is an important part of our daily lives. Our lives today are largely dependent on technology and computers, so attackers can try to steal information about you and me over the Internet. Cybersecurity covers all aspects of ensuring the protection of citizens, critical infrastructure and businesses from any threat of Internet use.

Cyber threats are evolving every day, which increases the need to develop and strengthen security measures to ensure the protection of all users of cyberspace. The increasing use of cyberspace around the world has led to the complication of cyber threats along with globalization. Cybersecurity threats continue to grow in frequency and diversity. This has led to serious security threats, so there is a need to establish more effective security measures to prevent these threats from occurring. In general, threats can be divided into three groups: [3]

- Malicious codes.
- Network abuse.
- Network attacks.

Malicious code includes worms, viruses, spyware, Trojans, bots, and keyloggers. According to Cavelty (2008), online abuse is phishing, spam, and network-related misinformation. Finally, network attacks include DoS(Denial of Service) attacks, attacks, and hacking of web pages.

Tasks of Cyber Pedagogy

1. Systematize best practices and current scientific knowledge in the field of personal development and human development in the context of cyber socialization.
2. To study the laws and features of personal education, upbringing, personal development, socialization and cyber-socialization in the context of the integration of objective reality and the symbolic reality of cyberspace.
3. Development of methods, tools, techniques, forms and technologies of psychological and pedagogical support of human cybersocialization at all stages of ontogeny.
4. Creation, approbation and popularization of new promising technologies for personal development and upbringing of "cyber socializing person".
5. Gradual formation and continuous improvement of a culture of safe, successful and mobile cybersocialization of all subjects of cyber pedagogy based on socio-cultural, ethnic-confessional, age, gender, personality and individual characteristics.
6. Formation of competencies of meaningful, rational and positive use of opportunities and resources of cyberspace for conscious cyber socialization of subjects of cyber pedagogy.
7. Prospects for improving the cyber-ontological approach in education and a description of the evolution of the theory of human cyber-socialization.
8. Predicting trends in the development and upbringing of the individual, as well as improving the technology of teaching and educating people in the context of cyber socialization of civilization.

The Meaning of the Term "Cybersecurity"

Cybersecurity is a complex issue that spans many areas and requires multidimensional, multi-layered initiatives and responses. This has proven to be a difficult task for governments due to the involvement of various ministries and agencies. The complexity is primarily due to the scattering and diversity of threats and the inability to form an adequate response in the absence of real culprits. [5]

Cybersecurity is the practice of protecting systems, networks and applications from digital attacks. These cyberattacks are usually aimed at accessing, altering or deleting confidential information, extorting money from users, or disrupting normal business processes.

Implementing effective cybersecurity measures is especially difficult today as attackers become more cautious.

Why is Cybersecurity so Important?

Cyber-attacks occur not only in science fiction movies, but also in our world. Cyber-attacks are estimated at $ 100 billion to $ 1 trillion annually. It is not difficult to understand why. Computers are everywhere. People are constantly connected by posting information about their lives on Facebook, Instagram and Twitter. In the modern world, most businesses are computerized. All operations and important data are stored on computers. Nowadays, cybersecurity is one of the biggest needs in the world as our lives are directly related to computers, cyber-attacks are on the rise and cyber-attacks are on the rise. [8]

Users need to understand and follow basic data security principles such as choosing strong passwords, being careful with email attachments, and backing up data.

In today's connected world, everyone uses advanced cyber defense software. At the individual level, cyberattacks can lead to the loss of important information such as identity theft, extortion attempts, and family photos. Everyone relies on critical infrastructure such as power plants, hospitals and financial services companies. Ensuring the security of these and other organizations is critical to ensuring the functioning of our society.

Results and Discussion

The main problems of cybersecurity. Most of us associate cybersecurity with hackers, data loss, privacy. The number of cyberattacks is not expected to decrease in the near future. In addition, access points for attacks have increased. This has led to an increase in the need to protect networks and devices.

One of the most problematic elements of cybersecurity is the changing nature of security risks. With the emergence of new technologies and the application of technologies in new or different ways, new methods of attack are being developed.

It is not easy to keep track of frequent changes in attacks, as well as update ways to protect against them. Challenges include ensuring that all cybersecurity elements are updated to protect against potential vulnerabilities. This can be especially difficult for smaller organizations that do not have employees or personal resources. [1, 9]

In addition, higher education institutions can gather a lot of potential information about educators who use one or more of their services. As more data is collected, the likelihood of cybercriminals trying to steal personal information increases, which is another problem. For example, higher education institutions that store personal information in the cloud may be attacked by a payment program. Higher education institutions need to do their best to prevent cloud disruption.

Cybersecurity programs should also monitor the online activities of their employees. Employees can accidentally bring viruses to their workplaces on their laptops or mobile devices. Regular security trainings help employees perform their duties to protect their company from cyber threats.

Another problem with cybersecurity is the lack of qualified personnel in cybersecurity. As the amount of information collected and used by businesses increases, so does the need for cybersecurity personnel to analyze, manage, and respond to incidents.

Conclusions

From the above, it follows that cybersecurity threats are very dangerous for the security of the country. The main problem is that technology is improving every day, and new ways of breaking cybersecurity by hackers and cyberterrorists are emerging. As mentioned above, a hacking attack gives attackers access to important information that could threaten the security of the entire country. Similarly, Internet users are also carriers of cybersecurity threats.

It will be very difficult to separate a real Internet user and a malicious person. For example, if you go to a cyber-cafe, there is a screening method to determine why users want to see it. All of the staff is asking for money for using their services after you log out. It is precisely because of such problems that the government must do everything in its power to keep cyberspace safe for the safety of all.

Given the interconnectedness of economies and the interconnectedness of different communication systems around the world, there is a common goal to reduce cybersecurity threats around the world. However, protective measures alone are not enough. Given the persistent and evolving nature of cybersecurity threats, there is a need for an international agreement on accountability, accountability prevention on the border of an increasingly dangerous digital war.

The 21st century, gadgets, social networks, messengers, video hosting - all of these are the environments of modern man. We go home, get world news, watch series, movies or videos on different platforms. We wake up and check messengers, discuss policies at lunch, at school, or at work. This is how the modern day goes.

Children. For some it is a burden, for others it is the flowers of life. Increasingly, tablets, smartphones and other electronics are replacing modern child toys. The current market is increasingly focusing on the children's segment. One of the most striking examples is the YouTube kids. This is a kids-only section of YouTube. In this part of YouTube, a large amount of montage is edited by adults (usually a montage video). Or kids taking their own videos. The basic principle is a bright preview, recognizable characters, an interesting name. And now you have a few million views and there is nothing useful in the consumer.

Children (especially children) and adolescents who are the target audience of this resource consume everything, any information given to them. The lack of filtering in the head of a fragile consumer creates unnecessary neural connections and often misconceptions about the world. The child is misdirected to explore the world, forming antisocialness, rigidity, and loneliness. Or a circle of interests is formed among consumers, in which distorted ideas about the world are reinforced by what they see on the Internet. The future structure of society is formed from such groups.

Filtering and information censorship do not change the position of future representatives of different social strata, there is a growing need for information and computer literacy among different age groups.

References

Токтаров Е.Б. Международный онлайн – круглый стол «Киберпедагогика в условиях цифровизации образования» / Е.Б. Токтаров // Электронный научно-публицистический журнал «Homo Cyberus». – 2020. – № 1 (8). – URL: http://journal.homocyberus.ru/cyberpedagogykz2020_1_2020.

Mamatov D.N., Bekchanova Sh.B., Saidova B.N., Abdullaeva D.N. Enhancing the participation of students and faculty in distance learning using blender learning and flipped classroom technologies in the development of pedagogy through digital technology // PSYCHOLOGY AND EDUCATION (2021) 58(2): 4910-4917. U.S.A., P 4910-4917.

Bekchanova Sh.B. Didactic Principles of Digital Learning Process Based On Digital Technologies in Distance Learning // International Journal of Academic Pedagogical Research (IJAPR) Vol. 5 Issue 1, January – 2021 Vashington, Pages: 74-76. www.ijeais.org/ijapr

Pedagogical technologies of distance education // International Virtual Conference On Innovative Thoughts, Research Ideas and Inventions in Sciences, Hosted from Newyork, USA http://euroasiaconference.com January 20th. 2021. p 142-144.

Bekchonova Sh.B. Pedagogical design of distance learning processes in the electronic information and educational environment of continuing education // European research: innovation in science, education and technology / collection of scientific articles. LXIII international correspondence scientific and practical conference (London, United Kingdom, May 6-7, 2020). – London 2020. p 79-83.

Bekchonova Sh. B Use of «Cloud technologies» that store and transmit electronic information in distance learning // European Journal of Research and Reflection in Educational Sciences. United Kingdom. Vol. 8 No. 9, 2020. P 19-23 (13.00.00; № 3)

Bekchonova Sh.B. Effective use of electronic and distance learning to increase the number of students in the higher education system by correspondence course. ACADEMICIA International Multidisciplinary Research Journal, India. Vol. 10, Issue 6, June 2020

Impact Factor: SJIF 2020 = 7.13/ DOI: 10.5958/2249-7137.2020.00527.3. p 359-363.

Mamatov DN, Bekchanova Sh.B, Sadiqova AV, Khojaev A.A. Exploring the LMS moodle system and its use. Educational-methodical manual. - Tashkent, 2020. B 90.

Bekchanova Shoira Bazarbaevna. Tashkent State Pedagogical University. «Technologies for the development of distance learning in the individualization of educational processes on the basis of digital technologies». Procedia of Social Sciences and Humanities Proceedings of the International Conference on Community Education, Economics, Psychology and Social Studies 2021 (ICCEEPS). This is an open-access article distributed under the terms of Creative Commons Attribution License (CC BY). To view a copy of this license, visit https://creativecommons.org/licenses/by/4.0/.

Расулов, А. Б. (2020). ON THE ROLE OF SUSTAINABLE DEVELOPMENT IN ENVIRONMENTAL PROTECTION. ГЕОГРАФИЯ: ПРИРОДА И ОБЩЕСТВО, 1(3).

Ходжиева, З. У. (2016). ГУМАНИЗАЦИЯ ДИДАКТИЧЕСКИХ ОТНОШЕНИЙ В СОВРЕМЕННОМ ОБРАЗОВАНИИ. Молодежь в науке и культуре XXI в.: материалы междунар. науч.-, 201.

Rasulov, A., Saparov, K., & Nizamov, A. (2021). METHODS OF RESEARCH OF TOPONIMES. In ЛУЧШАЯ ИССЛЕДОВАТЕЛЬСКАЯ РАБОТА 2021 (pp. 181-184). Rasulov, A., Saparov, K., & Nizamov, A. (2021). METHODS OF RESEARCH OF TOPONIMES. In ЛУЧШАЯ ИССЛЕДОВАТЕЛЬСКАЯ РАБОТА 2021 (pp. 181-184).

Saparov, K., Rasulov, A., & Nizamov, A. (2021). Problems of regionalization of geographical names. In ИННОВАЦИИ В НАУКЕ, ОБЩЕСТВЕ, ОБРАЗОВАНИИ (pp. 119-121).

Rasulov, A. B., & Rasulova, N. A. (2020). METHODOLOGY OF GEOECOLOGICAL INDICATORS OF SUSTAINABLE DEVELOPMENT, GLOBAL GEOECOLOGICAL INDICATORS. In СОВРЕМЕННЫЕ НАУЧНЫЕ ИССЛЕДОВАНИЯ: АКТУАЛЬНЫЕ ВОПРОСЫ, ДОСТИЖЕНИЯ И ИННОВАЦИИ (pp. 302-305).

Rasulov, A. (2022, August). ANALYSIS OF ECOLOGICAL SITUATION AND METHODS OF ITS ASSESSMENT. In Conference Zone (pp. 24-27).

Rasulov, A., Saparov, K., & Nizamov, A. (2021). THE IMPORTANCE OF THE STRATIGRAPHIC LAYER IN TOPONYMICS. CURRENT RESEARCH JOURNAL OF PEDAGOGICS, 2(12), 61-67.

Kulmatov, R., Rasulov, A., Kulmatova, D., Rozilhodjaev, B., & Groll, M. (2015). The modern problems of sustainable use and management of irrigated lands on the example of the Bukhara region (Uzbekistan). Journal of Water Resource and Protection, 7(12), 956.

РАСУЛОВ, А. Б., & АБДУЛЛАЕВА, Д. Н. (2020). ПЕДАГОГИЧЕСКИЕ И ПСИХОЛОГИЧЕСКИЕ АСПЕКТЫ РАЗВИТИЯ НАВЫКОВ ИСПОЛЬЗОВАНИЯ САЙТОВ ИНТЕРНЕТАВ ПРОЦЕССЕ повышения квалификацииРАБОТНИКОВ НародНОГО ОБРАЗОВАНИЯ. In Профессионально-личностное развитие будущих специалистов в среде научно-образовательного кластера (pp. 466-470).

Rasulov, A. B. (2020). GEOECOLOGICAL ASPECTS OF SUSTAINABLE DEVELOPMENT. In SCIENCE AND EDUCATION: PROBLEMS AND INNOVATIONS (pp. 307-310).

Hojieva, Z. U. (2014). The Role of" Mark" in Humanization of Didactic Relationships. In Young Scientist USA (pp. 33-36).

Khabibullaevich, R. B. (2022). The Importance of Teaching Folk Crafts to Teachers of Technological Education in the Educational Process. Journal of Pedagogical Inventions and Practices, 9, 118-120.

Razzokov, B. K. (2022). The System of Formation of Professional Culture of Teachers of Future Technological Education through National Values. Journal of Positive School Psychology, 1659-1665.