ARTIFICIAL INTELLIGENCE IN HIGHER MILITARY EDUCATION

Qodirov Baxtiyor Ergashevich
A Senior English teacher, Renaissance University of Education,
(bakhtiyorkadirov1982@gmail.com,) ORCID ID: 0009-0003-5260-0323

DOI: https://doi.org/10.5281/zenodo.17933763

Abstract: *The article discusses the use of artificial intelligence in education, as well as solving problems ofpersonalization of training and career guidance. The need to introduce artificial intelligence into the*
learning process, as well as technologies that are already in use, has been identified and analyzed. The possibilities of using artificial intelligence in personalizing learning are presented. Having analyzed the possibilities of using artificial intelligence, we came to the conclusion that there is a need to use and improve the technologies of neural networks and artificial intelligence in education.

Keywords: *innovations in education, artificial intelligence, training, end-to-end technologies, vocational education.*

1 INTRODUCTION

At the beginning of 2023, one of the main news topics was the breakthrough the success of various neural network models capable of performing the most a variety of creative and intellectual tasks. The largest IT companies compete with each other in the race of artificial technologies intelligence (AI), and experts from various fields are trying predict how these technologies will change our lives. However, they themselves AI technologies, including neural networks, are not something fundamentally new. Back in March 2019, at a major international event "Week of learning using mobile devices", organized under the auspices of UNESCO, Director-General of UNESCO Audrey Azulay noted: “Artificial intelligence will seriously change the sphere education. Teaching methods, waysof learning, access to knowledge and teacher training will undergo revolutionary changes”. The event organizers emphasized that AI “has potential to accelerate the achievement of global goals in education by reducing barriers to access training, automation of management processes and optimization of methods to improve learning outcomes".

In the era of digitalization and globalization, the field of education is undergoing changes, acquiring new highly intellectual shades, namely the introduction of various digital fundamental tools such as neural networks, artificial intelligence and more. The educational system in Russia is an important component of the development of our state, which requires special attention to train highly qualified specialists who have the necessary competitive advantages in the labor market and are ready to realize their potential in the digital economy [10]. Presentation of the main material of the article. According to Anton Nemkin, in the

educational process itself, the key area of AI implementation still remains the possibility of automation. The educational process is sometimes full of routine tasks, and in this case, AI can become an effective assistant for both students and teachers. For example, in terms ofsearching for any information or checking homework. There is no need to be afraid of such technologies: this is just another auxiliary tool," the deputy emphasized? Artificial intelligence also has the potential to significantly improve the efficiency and accuracy of formative assessments. By analyzing student responses and providing instant feedback, AI can help teachers identify areas where students are struggling and adjust their teaching methods to suit their needs. Moreover, AI-powered assessments can provide real-time data on student performance, allowing teachers to track progress and make data-driven decisions about instruction. Consideration of the importance of using artificial intelligence in education is due to the need to develop programs and tools for personalizing the educational process to improve the quality and efficiency of learning. Recently, you can often hear about the penetration of artificial intelligence into all spheres of human activity, including education. In this study, we will try to understand what this is and how it will affect the development of society and education. In general terms, neural networks are a mathematical model, a massive computational code capable of producing a prediction by solving a given intellectual problem based on assessing the criteria of a given question, analyzing a huge amount of information, databases, artificial intelligence produces the most realistic and correct answer. The advantage of neural networks is their learning ability; they can learn independently, without the direct participation of an ITspecialist in Machine learning [5, 9].

2 MATERIALS AND METHODS

Artificial intelligence or machine learning is currently actively used in education, from conducting and checking exams to automatically selecting material for students in areas where they have learning difficulties, inviting the student to more consciously delve into the topic, increase the level of knowledge and abilities, analyzing the progress and productivity of the student, adjust his training plan under the constant and loyal control of the "unfeeling" machine [3]. Artificial intelligence is actively being introduced into the learning process and it is becoming obvious that the scale of use of these end-to-end technologies will only increase every year.While artificial intelligence has many potential benefits for education, there are also some disadvantages that need to be considered. Some of thebenefits of artificial intelligence in education include:- Increased efficiency and accuracy of assessmentand feedback;- Individual training for each student;- Accessibility and

convenience for students;- Increasing student engagement and motivationPlease remember to format the quote correctly:

- High cost of implementation and maintenance;- Dependence on technology and the Internet;- Privacy concerns;- Possibility of bias in algorithms.One of the main concerns of artificial intelligence inhigher education is the privacy and security of studentdata. As artificial intelligence algorithms collect andanalyze large amounts of student data, it is important toensure that this data is protected from unauthorizedaccess and misuse. Another challenge of artificialintelligence in higher education is the risk of bias anddiscrimination. Artificial intelligence algorithms canperpetuate existing biases in data, resulting in unfair andunequal treatment of students. It is therefore importantto address these issues by developing artificialintelligence systems that are transparent, accountableand unbiased.Let's look at the main areas of using artificialintelligence in education at the moment: Automation ofroutine tasks. Teachers have always had a large layer ofresponsibility and amount of work with students on theirshoulders - monitoring progress, checking standardassignments, the level of knowledge and preparation forclasses. Such mundane tasks take a lot of time awayfrom the valuable learning process in the classroom. Toimprove the efficiency and quality of education, it isnow possible to delegate such routine work to artificialintelligence.We agree that a person will never process such anamount of text and other information that can possiblybe processed by artificial intelligence. Human errorsthat artificial intelligence cannot make are alsoexcluded. There is a lot of talk now about personalizing learning. By introducing artificial intelligencetechnologies into the educational environment, it is possible to create personal plans for studying eachdiscipline when training specialists, and then implement control over the activities of students. This applicationof artificial intelligence in education becomes possible thanks to the development by teachers and psychologists of methods for determining abilities, motivation, willpower and other indicators of students, on the basis of which an individual training program is built. The creation of educational applications and specialized content for students also contributes to the personalization of the educational process. This function is actively used by many students and teachers [1]. For example, in teaching foreign languages in different formats using one application. The technology allows you to recognize the student's speech, analyzing the construction of sentences, vocabulary and grammar, issuing additional tasks of similar content to re-reinforce the material. These applications are very popular due to the fact that they become a routine activity in gadgets for many people. In addition to learning foreignlanguages, technology is applicable to all subjects and they are already beginning to gain success among

bothstudents and teachers. Artificial intelligence is capable of collecting and analyzing large amounts of disparate data, and in the future get a general picture of the situation from this. In addition, artificial intelligence is able to predict itdevelopment based on the starting point and offer options for adjusting it depending on the request. Personalized learning is a way of developing an educational plan and its implementation, in which the student is the subject of the educational process, considering his personal characteristics. In order to increase the efficiency of the educational process from the standpoint of personalization, it is necessary to resort to the capabilities of artificial intelligence for both teachers and students themselves. Artificial intelligence is capable of collecting and analyzing large amounts ofdisparate data, and subsequently obtaining an overall picture of the situation from this. In addition, artificialintelligence is able to predict its development based on the starting point and offer options for adjusting itdepending on the request. Applicable to the educational process, artificial intelligence is capable of identifyingcertain disciplines and areas of these disciplines in which students have problems. This helps to analyze thesituation at a given time and highlight where the student needs additional help. Moreover, at each subsequentpoint in time, technology can determine the need to reduce or increase the amount of this assistance.This concept can help create a personalized learning path considering such parameters as: interest inthe topic, psychological state, ability to perceive certain information at a certain point in time, etc. In the digitalera, in addition to mastering professional competencies (hard skills), it is necessary to develop soft skills (softskills). Constantly increasing amounts of information and knowledge have a huge impact on the human brain.It is impossible to absorb all the information, but artificial intelligence can help with various types of tasks, allowing students to develop critical thinking and creativity. Today, end-to-end technologies can becomeexcellent assistants for collecting and filtering information that will help students learn more effectively and teachers improve the quality of learning material. Neural networks are rapidly gaining interest among educational institutions or platforms; by analyzing the activities of students, artificial intelligence is able to mechanically identify the weaknesses of their performance in certain disciplines, which in turn indicates to teachers the need for additionalintervention, and then assistance in resolving the issue of student performance. The concept of introducingartificial intelligence into the education process is aimed at personalizing the system, adapting to the abilities ofstudents, as well as monitoring the social component, convenience and practicality of use [2, 4]. Artificialintelligence is also capable of analyzing the interests of students and offering them programs and courses inaccordance with them. An individual approach

allows you to interest students in the learning process, as wellas control the independence of completing tasks during distance learning or self-study [8]. The digital world is a huge flow of information that a person cannot process and analyze, so let technology do it for him. Neural networks will help you cope with the routine of teachers, checking tests, coursework, and extensive homework. The ability to identify various types of errors when writing text, solving tests, solving mathematical equations, even complex ones, is a huge discovery for the field of education, as well as a very useful tool in the hands of a teacher. Another problem of modern education can be solved with the help of neural networks - this is career guidance, which is aimed not only at preparing for the choice of profession, but also at helping in self determination and subsequent employment of graduates. Analysis of answers to various questions, according to a logical chain built by a machine, the result is a detailed picture of a person's abilities and interests. It works as follows - a test system developed by a Russian group of leading teachers in various fields, the input data for the neural network are the results of the very tests that are offered to students to pass. Representatives of the scientific community are well aware that any self-learning digital program is constantly a changing andimproving set of logical standards, and people are notalways able to understand the logic of a self-developingartificial intelligence. The scientific community also notes significant changes taking place in the nature ofthe work of artificial intelligence programs. Inparticular, if in the initial programs, the result of theirwork was big data, but these programs themselves werepassive, then at the level of self-learning digital big datasystems have begun to manage options. And this meansan increase in the unpredictability of their work, sincethey are no longer programmers, and the data itselfdetermines what to do next.How can artificial intelligence help a teacher?

Personalization of learning: AI can help teachers create personalized learning plans for each studentbased on their individual needs and abilities.

Automate routine tasks: AI can help teachers freeup valuable time by automating routine tasks such asgrading tests, grading papers, and preparing teachingmaterials.

Data analysis: AI can analyze learning data, helpingteachers identify areas where students need additionalsupport and suggesting strategies to improve learning.This will make it possible to predict educational results.

Developing new teaching methods: AI can helpteachers develop and test new teaching methods based

on the analysis of large amounts of data. Where humanattention may fail, AI will work strictly according to thealgorithm, without missing anything.

Improving access to education: AI can helpteachers create innovative resources that makeeducation accessible to all students.

3 CONCLUSIONS

In conclusion, it is important to note that the use of endto-end technologies, and in particular artificialintelligence and neural networks, can lead to asignificant improvement in the effectiveness of learning,the formation of a digital and information culture ofstudents and will personalize the learning process [7]. Inaddition, the use of end-to-end technologies will make itpossible to monitor and adjust the educational process,which is more consistent with the requirements of themodern digital society.Now it will be much easier for applicants to make achoice of profession when entering educationalinstitutions, because machine devices analyze only theinput information provided by the students themselves,without imposing the opinions of society, parents andpeers. Artificial intelligence helps optimize learning approaches depending on the needs and characteristics of each student. This is the need to use this technology in education in order to personalize it. It should be taken into account that education is This is the unity of teaching and upbringing. Experience shows that at the current level of development digital programs, the educational component of the educational process cannot be handed over to them, it remains with the living teacher. It should be considered that education is this is the unity of teaching and upbringing. Experience shows that at the current level of development digital programs, the educational component of the educational process cannot be handed over to them, it remains with the living teacher. It should also be understood that artificial intelligence is not the only modern technology; it is closely intertwined with other end-to-end technologies (big data, robotics and sensors, Internet of things, cloud technologies, augmented and virtual reality technologies, quantum technologies, new manufacturing technologies) whose application is a guarantee of successful professional activity of all participants in the educational process. The integration of artificial intelligence into education has the potential to revolutionize the way we learn and teach. Artificial intelligence can provide students with personalized learning experiences, accurate and efficient assessments, and targeted support and feedback. However, it is critical to consider the potential pitfalls of artificial intelligence and ensure that it is implemented responsibly and ethically. The integration of artificial intelligence into education must be approached with caution and a balance must be struck between its advantages and disadvantages to ensure that it benefits students and the education system as a whole. Educators should not perceive AI as their competition. Its main disadvantage can be considered the lack of a human factor. It will never replace “live” communication and learning with

a teacher. In addition, AI does not have emotional intelligence; it cannot competently motivate students, praise or reprimand them in a timely and appropriate manner. But he is capable of becoming an excellent teaching assistant. The main thing is not to be afraid and master neural networks as a new tool for your pedagogical purpose.

References

1. Bulaeva, M.N. Methodological recommendations forthe use of digital platforms in professional educationalorganizations / M.N. Bulaeva, O.N. Filatova, P.V. Kanatiev72(4). – pp. 34-36
2. Weindorf-Sysoeva, M.E. "Digital foresight" –educational practice with a teamwork constructor in a hybridlearning environment / M.E. Weindorf-Sysoeva, I.P.Tikhonovetskaya, N.D. Vyun // Bulletin of Minin University.– 2022. – T. 10. – No.2.
3. Syabitova, K.S. Artificial intelligence in the systemof professional education / K.S. Syabitova, O.N. Filatova //Professional self-determination of youth in the innovativeregion: problems and prospects. – Krasnoyarsk – Chelyabinsk– Nizhny Novgorod. - Moscow. – 2023. – P. 132-134 290
4. Petrov, Yu.N. Cognitive direction of development ofdigitalization of professional education / Yu.N. Petrov, M.V.Firsov, O.N. Filatova // News of the Baltic State Academy ofFishing Fleet. – 2020. – No. 2 (52). – P. 7-11
5. Firsov, M.V. Advanced training in Future Skillsthrough the development of computer simulators and digitalassistants with artificial intelligence / M.V. Firsov, O.N.Filatova, A.V. Gushchin // News of the Baltic State Academyof Fishing Fleet. – 2020. – No. 3(53).
6. Filatova, O.N. Application of neural networks invocational education / O.N. Filatova, M.N. Bulaeva, A.V.Gushchin // Problems of modern pedagogical education. –2022. – No. 773. – P.243-245
7. Filatova, O.N. Pedagogical Quantorium as a meansof increasing digital competencies / O.N. Filatova, T.D.Feofanova, A.D. Markova // News of the Baltic StateAcademy of Fishing Fleet: psychological and pedagogicalsciences. – 2022. – No. 1(59). – pp. 61-64. – DOI10.46845/2071-5331-2022-1-59-61-64
8. Filatova, O.N. Formation of engineering thinkingamong students in educational robotics classes / O.N. Filatova, O.Yu. Ryabkov, E.L. Ermolaeva // Problems of modernpedagogical education. – 2020. – No. 68-4. – pp. 245-247.
9. Markova, S.M. University modernization in theconditions of industrialization of production and intelligentmachines / S.M. Markova, S.A. Tsyplakova, E.P. Sedykx,O.N. Filatova, A.V. Khizhnaya // Lecture Notes in Networksand Systems. – 2021. – T. 200. – P. 940-947
10. Markova, S.M. Forecasting the development ofprofessional education / S.M. Markova, S.A. Tsyplakova, E.P.Sedykx, A.V. Khizhnaya, O.N. Filatova // The 21st Centuryfrom the Positions of Modern Science: Intellectual, Digital andInnovative Aspects. – Cham, 2020. – C. 452-459