Digitalization of Education: Diversity of Views

Konopleva N.V.[1,*] Aleksandrovich N.V. [2]

[1]*Kazan Federal University, Kazan, Russia*
[2]*Kuban State University, Krasnodar, Russia*
[*]*Corresponding author. Email: natali.konopleva@mail.ru*

ABSTRACT

The article regards the viewpoints of authoritative experts (university rectors, teachers and psychologists) concerning digital education. The analysis shows that digital resources give education unprecedented opportunities and open up new horizons. However, at the present stage, there is not even a clear definition of what "digital education" is, since Russian teaching theory also includes an upbringing component into educational process. Without this component, education will become just learning with an unknown result. Live creative communication is a necessary part of the personality development but it is precisely excluded in a dialogue with a machine.

The article offers a fragment of the lesson-quest, in which you can use either virtual reality tools or, at least, a smartphone. The lesson is devoted to expanding knowledge about the work and personality of W. Shakespeare: it creates the image of the city of London in the XVI century and involves various types of activities, including creative ones. The necessary information was available on specialized websites of museums or galleries. Special attention was paid to the fact that the language of the articles should be clear, the articles were interesting in content and would have such details that are little known even to the most erudite students. Students are supposed to apply their analyzing, comparing and generalizing abilities making the quest.

Keywords: digital education, digital learning, virtual world, educational process, creative component, contextual education

1. INTRODUCTION

The digital world of the XXI century integrates all subsystems of our society including environment, technologies, health industry and education. Everyone can plunge into the exciting world of digital capabilities today.

No doubt, pluses of digital devices in education are obvious. Modern technologies involve students in the educational process, and inspire teachers to create new models of training. For example, a teacher can conduct an online survey at any stage of the lecture and see the current level of students' knowledge. Students of any age can search for answers, form their own position, and then defend it. The use of technological tools makes it possible to achieve great changes in training results. The strategy of working with the digital "generation Z" is based on the fact that it is almost impossible to involve them in the traditional educational process, and teachers are willing to follow modern trends.

At the same time, we cannot help viewing some minuses of digital devices. They can distract from the learning process, affect students' communication skills and social interaction in a negative way. In addition, you will have to teach students to distinguish high-quality sources from unreliable ones.

Nevertheless, the digital advantages outweigh their disadvantages and digital technology stays a very effective tool, but it is just a tool. Anyway, technologies cannot replace the teacher for a good tool always needs a good workman.

This is how we reasoned just a few months ago, when everyone had a choice: get an education at an educational institution, or improve it using online resources. The reality of today is a total transition to remote platforms, and this makes the topic of digitalization of education extremely actual.

2. METHODOLOGY

First of all, virtual reality is the game world. There are computer games with the highest level of presence; a person quite naturally plunges into them: you can hear, see, and touch objects with your hands. Everything is so believable, that you forget about parallel real reality. Secondly, virtual reality is, in addition, the modeling of various processes from technological to physiological. Finally, it provides unlimited educational opportunities.

For our students virtual reality would bring the most promising prospects: thanks to virtual reality, some elements of the lesson can turn into an exciting game, involving students in the material. In addition, you can travel anywhere and experiment anything without fear. However, many factors (for example, the effect of technology on psychological state and health of the students) are not known yet.

3. RESULTS

Fragment of a lesson using VR
Type: web-quest - for short-term work (one lesson); performed in groups;

the ending result: expanding knowledge about the work and personality of W. Shakespeare.

Cognitive goal: to acquaint with the historical and humanitarian situation in London, when W. Shakespeare lived and worked there.

Developing goal: to develop the analyzing, comparing and generalizing ability.

Educational goal: to create conditions that ensure the development of interest in learning a foreign language and literature.

Game goal: to travel around the 16th century London (to understand the genius of the Poet, you need to know the conditions in which it appeared).

Age: 14-15 years old and above.

Hero: the capital of England in the 16th century.

Note:

1) The subject, form, and content of the class were chosen based on the availability of the resources for students. Classes can be held on a smartphone, even without a headset. 360 videos are available on digital sites such as Facebook and YouTube. Although they cannot be considered real VR, watching some videos becomes an alternative to VR.

2) The necessary information was available on specialized websites of museums or galleries. Special attention was paid to the fact that the language of the articles should be clear, that the articles were interesting in content and would have such details that are little known even to the most erudite students.

First message of the game:

Although Shakespeare is known as the Bard of Avon, and came from Stratford, Shakespeare and London are inextricably linked. Let's travel about the late 16th century/early 17th century London that Shakespeare would have known and experienced.

Shakespeare left Stratford in 1587 and went to London. The first record of William Shakespeare in London is of him living in Bishopsgate in 1596 (see the episode about the first place where Shakespeare lived in London). The address is unknown, it is thought to be in the vicinity of Leadenhall Street and St Mary Avenue.

Most ordinary Elizabethan Londoners lived in apartment buildings that were squashed together haphazardly, without planning. London began to develop suburbs during this time. Some courtiers and other wealthy Londoners built themselves country residences around the edges of London in areas that later became part of what we know as London today.

A. Watch the video "Shakespeare's World - Timelines.tv History of Britain" (7.5 min) and find out answers to the questions:
1. What kind of town was the one Shakespeare was born in?
2. What was the future playwright seeking for in London?
3. What did London look like then?
4. What state of mind did the poet have thanks to this city?
B. Write the essay "My impressions of the late 16th century/early 17th century London"

Necessary links were given beforehand:

https://www.bl.uk/shakespeare/articles/shakespeares-london

https://www.nosweatshakespeare.com/blog/shakespeare-live-london/

https://yandex.ru/video/preview/?filmId=1484264502095482944&from=tabbar&parent-reqid=1581799990063881-3132957512352252216000067-vla1-2522&text=London+in+the+time+of+shakespeare

4. DISCUSSION

Experts [1, 2, 3] believe that the digitalization of the world economy entails a number of ambiguous social and cultural consequences that must be carefully analyzed. The dangers and prospects of digital trends in education were studied by a research group from the Federal Institute for educational development of the Russian presidential Academy of national economy and public administration (RANEPA) [4].

They made "The Didactic Conception Project of digital professional education and training. " The research supervisor was Vladimir Blinov, Director of the center for professional education and qualification systems.

The experts of RANEPA [4] believe that building of a digital educational process requires the development of a new direction of pedagogical science — digital didactics. The researchers created the project "Didactic conception of digital vocational education and training", which outlines ways to organize a personalized digital educational process. The authors pay special attention to the problem of digital assessment technologies. Experts offer included assessment, i.e. instant feedback between the teacher and the student using IT tools.

According to Vladimir Blinov, a teacher equipped with operational information about the quality of tasks will be able to run the effective movement along the educational route. In addition, over the next 5-10 years, systems for automatic translation of texts from any language will appear. This means that electronic resources, libraries of the world's leading universities and lectures by the best teachers will be available to every student. In other words, the globalization of education is an inevitable phenomenon, and we should be ready for it but not be afraid of it.

Professor A. Verbitsky [5] believes that the advent of digital learning has caused a literal "revel" in the world and in Russia. But, first of all, it is necessary to distinguish the notions of "digital learning" and "digital education", which are often used as synonyms, which is incorrect. The term "digital learning", as well as "digital didactics", refers to the rules, principles and mechanisms of getting knowledge, skills, and competencies using gadgets. The term "digital education", often found in teaching literature, legal documents, and in educational practice, is inaccurate. The fact is that the word "education" has many meanings: it is culture, upbringing, and education.

In addition, A. Verbitsky [5] and other colleagues [6, 7] remind that a person is an integral unity of the spirit (basic social and personal values and principles), the soul (all mental processes) and the body, which implements the goals and programs set by the previous two "channels". The psyche, in turn, is a unity of biological and social, consciousness and unconscious, intellectual and emotional, rational and irrational. Digital learning only switches on its

intellectual component from the whole little known and incredible wealth of a human being.

Against the backdrop of optimistic scenarios, authoritative psychologists call for objectivity and caution. Along with the huge and still little understood opportunities for digital learning there are a number of challenges and risks:

1. There is no pedagogical or psychological theory of digital learning in the world that teachers can rely on and use it.

2. The process of training and education is implemented through communication between teachers and students. Communication consists of three components – communicative, interactive and perceptual, as well as two sides – verbal and non-verbal [5].

There is a great meaning-forming influence of the perceptual component on the productivity of perception and assimilation of information. A computer objectively is not designed to turn information into knowledge or a meaning into the sense. This means that a "computer metaphor" is nothing more than a metaphor; processing information by a computer is not a mechanism for generating knowledge from it by a person, and we need to look for proper psychological patterns and mechanisms for understanding this process.

Thus, P. Norton (USA) writes that computer-based training systems are developed for traditional training instead of providing promising ways to use the exceptional capabilities of the computer on a new basis. It is a powerful tool to help people understand many phenomena and patterns, but it inevitably enslaves the mind, which has only a set of learned facts and skills [8].

Psychologists warn [] that there is a real risk of degradation of speech as well as the thinking. Thinking is developing through speech, which is reduced in digital learning as a user clicks on the letters of the keyboard. As the researchers note, children of the digital generation have fragmented thoughts and superficial judgments. If a student does not have a wide practice of live communication, the formation of thoughts in speech, as shown by psychological research, does not take place.

Education has two sides of the coin: learning and upbringing, but digital learning is not about upbringing at all. Upbringing is a moral category, where morality is the laws, regulations, norms of social behavior, religious, gender, technical norms, etc. adopted in society [5]. They can be learned by memorizing relevant information, including information transmitted by the computer. Moreover, morality is the experience of a person's sensory (positive or negative) experience of relationships between people that arise in these situations. However, interaction with the machine is not a dialog. Dialogue is the development of topics, positions, or views stimulating by the joint efforts of two or more people while a computer program initiates the paths along which the computer user moves in advance.

The rector of the Higher school of Economics Ya. I. Kuzminov proposed a total switch to online education in universities, replacing all professors and teachers with personal computers [9]. However, in the process of digital learning, the live speech of a student as a means of forming and formulating thoughts is turned off, by definition. Therefore, if we go along the path of total individualization of learning with the help of personal computers, we can come to the point that the very possibility of creative thinking formation, which is dialogical in origin, will be missed. There is another danger: the curtailment of social contacts, which will lead to individualism and loneliness.

This does not mean that digital learning should not be used, just the opposite. Experts believe that it is necessary to find a psychological, physiological, pedagogical and methodological balance between the use of a computer and live communication for the teacher and the student as the subjects of an educational process.

According to A. Verbitsky, the psychological and pedagogical theory of contextual education can become a scientific basis to which digitalization of education can be "tied" [5, 10]. The main idea of contextual education is to impose the assimilation of students 'theoretical knowledge' on the "canvas" of the upcoming practical activity by means of sequential modeling of its technological, social and moral content; to turn, figuratively speaking, the "larva" of the student into the "butterfly" of the graduate.

In the process of contextual education, vast possibilities are created for using the computer as a powerful and necessary means of ensuring its content and process without reducing the student to a digital device, to the brain, in which "information processing" takes place.

5. CONCLUSION

As a fact, most students cannot see that any activity requires systematic, regular work to bring success and that requires time. People, especially young people, want everything and now. Digital gadgets, as it seems, will easily help to solve any learning problem and do not require an effort.

Our lessons are not just about this or that subject. Everybody who works in education are to develop intellect, the ability to work out arguments, and draw conclusions. We teach to search for information and check it, take responsibility and be creative. These are skills of the XXI century.

This challenge requires an individual approach to any student, and therefore, psychological knowledge and skills. However, any learning process is a learning and communication process, which may depend on nature, weather and mood, but largely – on personal qualities, inclinations and circumstances. At this stage of technological development, the machine is unlikely to cope with such a task. Only the teacher can choose and "turn on the working mode" of the student, and digital gadgets should be the ideal auxiliary tools in our hands.

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