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## **THE IMPACT OF TECHNOLOGY ON MODERN EDUCATION**

The advancement of technology has led to widespread digitization, resulting in a shortage of qualified workers who can keep up with the constantly evolving IT industry. Digital tools and online learning platforms are becoming steadily more integrated into the educational processes. They are making significant changes to the way we learn.

Furthermore, digital tools and online learning platforms make education more:

- Accessible. Everyone who has a laptop and internet access can receive knowledge.
- Effective. All multimedia materials help to assimilate the material better.
- Inclusive. Education becomes more accessible to people with special needs, for instance, students with a language barrier or people with a huge lack of knowledge (it is much easier to make up for lost knowledge online than to return to school when you are already 30).

Physical attendance at a university or other educational institutions to obtain the appropriate specialization is becoming less and less necessary, as thanks to digital tools and online learning platforms, all education is transferred directly to your home. All you need is a computer (sometimes even a smartphone is enough) and internet access.

Modern education, thanks to innovative technologies, has been transferred to educational online platforms. Examples of such platforms are Coursera, Prometheus, EdX, osvita.diia, Udacity, LinkedIn learning, Udemmy or even Moodle - an open-

source learning platform that provides online learning in universities. Education becomes accessible to students from different countries and social strata, expanding the possibilities of acquiring knowledge. Learning new concepts and subjects can take place anywhere in the world, providing flexibility in learning.

This is undoubtedly the result of progress in the field of education, as such distance learning offers a wide range of opportunities, including:

- The ability to learn at any time and from anywhere, is the so-called personalization of learning. It allows you to learn at your own pace and according to your own needs, when it is comfortable for you.
- Different learning formats. As you can see new educational landscape can offer you different learning formats, including video lectures, webinars, online courses, and others. In addition, interactive elements are used to improve learning, such as virtual laboratories, as well as the constant use of multimedia, video materials, and interactive tasks.

As was mentioned above, the transformation of the educational landscape by digital tools and online learning platforms is the result of the constant development of technology and progress in the education system.

Regardless of how technologies bring many advantages, there are always challenges with their implementation in the education system. The biggest problem is the uneven access to the Internet and technologies. Some students may be left out due to the lack of the necessary technical infrastructure. It is also worth remembering the protection of personal data used during sign-in for courses and various educational programs. The issue of cybersecurity and data confidentiality in the online environment is one of the most pressing issues since the creation of the Internet. The integration of technologies should go along with effective security measures to protect people from potential threats.

So, are there any other disadvantages to this type of learning? Can you master any profession online? Will you have all the necessary skills after such training?

Undoubtedly, the first question is the availability of technical equipment and internet access for learning. In the case where a person does not have the necessary equipment or their equipment is not very powerful, the only way out for them will be to study in the internet clubs or educational institutions that provide all the learning materials. As I know all the educational institutions have their own materials and technical base for student training.

The next challenge to highlight is discipline. In the first place, such training requires self-discipline, since while studying at home (especially from pre-recorded video lessons) people can easily be distracted by social media such as TikTok or Instagram. They could postpone classes for later until it is too late for them. In such cases, going to educational institutions is strongly preferable. Despite all this, when you come to the lecture, you do not have any other choice but to listen to it. What's also necessary to mention is the practice of acquired knowledge. Unquestionably, you can learn programming online. If your home PC allows you to do it, its technical characteristics must be pretty high. But what about engineering specialties, biologists, chemists, and students of medical institutions?

Digital tools and online learning platforms can provide the study of theory, in some cases there are programs called simulations for practicing theory and gaining certain practical skills, but this does not fully replace practice. Unfortunately, you can't teach a soldier to assemble a board "national drone", you can't learn to make surgical stitches or subjects like carpentry, welding, or hairstyling that involve complex physical manipulations.

Put in a nutshell, the transformation of the educational landscape by digital tools and online learning platforms is a step forward in the modernisation and

dissemination of educational opportunities. Digital tools like simulations, for example, Flight simulation (software for pilots), AnyLogic (powerful discrete event simulation software used for modelling and analysing complex systems in various fields like logistics, healthcare, and finance), or even SolidWorks (program of 3D design, engineering, and simulation, making it a crucial tool for professionals in various industries like automotive, aerospace, manufacturing, and consumer goods) – all these programs help study material and acquire necessary knowledge and skills without leaving home or getting out of your chair. Besides, you can learn how to use these programs online with a comfortable schedule and pace that you set for yourself.

However, despite all the advantages of learning with the help of online platforms or using various digital tools, there are certain drawbacks and limitations to this type of learning.

The future of education likely lies in a balanced hybrid approach that leverages the strengths of both online and offline learning to create a comprehensive and successful educational experience for all.

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