

## EDITORIAL



# How will Blockchain Technology Change Education Future?!

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The question “how” and “what to learn?” has always been urgent. New methodological approaches to education are appearing, pedagogical technologies are being worked out, innovative forms and methods of education are being implemented. The modern society being plunged into the information age, has not noticed that information technologies have started playing a more significant role in the educational process. A blockchain technology deserves a special attention nowadays. It appeared ten years ago and started its way as an undermining innovative technology that is moving upwards changing the old-fashioned forms. Having a great potential it has already started transforming financial and economic spheres, now it is turn for the sphere of education.

*The aim of the study:* to turn the attention of scientific and pedagogical workers to possibilities of using the blockchain technology in the sphere of education, as well as characterise the peculiarities of its implementation.

For the last century didactics has accumulated a rich experience, still some drawbacks of the educational process have become more evident. Among them are the following:

- the amount of information that a person has to perceive is increasing practically every day;
  - the period of studying at school, universities and courses of professional skills improvement is becoming longer;
  - not everything being taught at educational institutions will be proved useful in life and professional activity. Under such circumstances the mass education is becoming less and less effective.
- The education directed at mastering information and its reproductive output is unable to develop skills properly and take into account the interests of those who study. These banal (as it may seem for the first time) and known for everyone problems of education are almost impossible to overcome.
- Still the information age itself proposes a way out of this exclusive circle.
- Firstly, the paradigm of learning is being changed from “Education for the whole life” to “Life-long education”. Secondly, the blockchain technology has appeared (2008).
- Blockchain is a technology of distributed data register, that keeps an orderly chain of blocks which is constantly increasing. Each chain has a temporary indicator, a hash

from the previous block and transaction data, which can be added by other data while the existing data cannot be deleted. It looks like a hash-tree. Enciphering (cryptography) allows protecting these data from falsification and misrepresentation.

Let us consider some characteristic features which are peculiar for the blockchain technology and can be implemented into the educational sphere that in our opinion corresponds to the modern demands and thus will favour the transition of education to a new, higher, qualitative level.

*In the process of education:*

- digital identifications are used;
- the whole education chain of those who study is systematised (school – university – production);
- all acts are realised in the consecutive order and agreed upon;
- the freedom of choice as for the goal, content, forms and methods of studying is considered;
- there is a possibility to choose a teacher/lecturer and the appropriate time for studying.

*Those who study are:*

- ready to perceive the curriculum;
- motivated and active;
- able to carry out the schedule of hours;
- capable of putting the obtained knowledge into practice;
- successful in studying and life activity.

To our mind, the task of a teacher who uses the blockchain technology in the educational process is to create a common system of knowledge, skills and habits

that will provide the personality with a set of competencies for successful and happy living.

So, the life is not static, but its changes have never been so swift as nowadays; information technologies have never been implemented so fast into various spheres of a person's life activity. For example, social distance by the pandemic CoVid-19 has resulted in rapid widespread of distance learning methods. We are sure that the nearest future will surprise us more than once, shake our stereotypes, destroy common models and change standards.

The blockchain technology gradually but confidently is becoming recognisable in various spheres, and the educational one will not be an exception.

Thus the increase in quality of the educational process through implementation of the modern technologies becomes a strategic task which is worked out by the policy in the educational sphere of the whole world. The blockchain technology has a huge potential not only for the economic sphere where it has started to be used actively, but for the educational one as well, whose meaning has not been realised by the society yet.

Application of the blockchain technology in the educational sphere will combine organically the methodology of the personality-oriented and student-centred approaches. We have no doubt that that there is a question of time as for implementing the blockchain technology in the sphere of education. This is a modern technology that will help a person's nature and make the educational process easy, useful and interesting.

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