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# TEACHING OF DIGITAL ECONOMY IN THE UNIVERSITIES OF THE REPUBLIC OF UZBEKISTAN

Abstract: The digital economy is getting more and more widespread every year. To date, economic activities related to e-commerce and electronic business are actively forming and expanding in all economically developed countries. In article the higher education system in the Republic of Uzbekistan which prepares the graduates for active and creative ability to live in new information conditions is analyzed. One of the basic means for achievement of this purpose in high schools is the subject training course «Digital economy» in which at a stage of modernization of higher education the emphasis is placed on development of informative interests, intellectual and creative abilities by means ICT.

**Key words**: digital economy, electronic government, computer science, Bigdata, Blockchain, cryptography, information-technology communication, training of students.

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# Introduction.

In the Republic of Uzbekistan Laws «About electronic document circulation» from April, 29th, 2004, «About electronic commerce» from April, 29th, 2004, «About the electronic-digital signature» from December, 11th, 2003, «About information» from December, 11th, 2003 define the invoice of development of information field in Republic.

In the Republic of Uzbekistan the Association of enterprises and the organizations of the information technology which activity is directed on consolidation of efforts state and a private sector for accelerated development ICT are created [1-5].

Its members of steel of ten leading companies in the IT-market of the Republic of Uzbekistan. Also the competence center on electronic control which on a

gratuitous basis provides to the companies-partners of a condition for advancement of their goods and services in the field of electronic control is created, carries out scientific researches, and spends explanatory work on distribution of ideas of formation of an information society. The system of telecommunications of the Republic of Uzbekistan has direct international channels with an exit on tens countries of the world, fiber-optical and satellite systems are thus used.

Since 2012 the public education-information network «ZiyoNET», uniting information resources for educational and scientific institutions both providing wide and safe access to these databases by means of modern web technologies successfully functions. The IT centers are opened and special



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trainings for people with the limited possibilities are organized.

For the countries of the Arabian world the international non-governmental organization RAITNET - the Regional Arabian network of information technology has great value. It includes universities, research institutes, the state and private companies' more than 20 countries of the given region and supports a close connection with many specialized organizations of the United Nations.

Use of electronic communications radically transforms an education system: the increasing number of people uses possibilities of remote training; the principle of improvement of professional skill throughout all life is actively realized. Improvement of preparation of experts opens to the companies and establishments new horizons in human resource management, so also possibilities of growth of manufacture. In turn, for each worker it means more successful and dynamical career, the big motivation to work [6-10].

In the Russian Federation, in 2015 work on information and to a scientific and technical exchange on use ICT in formation, a science, culture, public health services, the government, in granting of services to the population and in other directions has been made active.

In the Russian Federation the great attention of updating and system of reproduction of shots in sphere of information technology is given. Today training in high schools of the Russian Federation is begun by new techniques. As a result higher educational institutions of the Russian Federation have started to leave the experts owning modern technologies and capable with their help to raise efficiency of performance of functions of the government. But it is necessary to note some level of dependence of the Russian market from foreign production in sphere of information technology.

In information systems in Russia basically foreign workings out today are used.

# Discussion.

Education of modernization demands new approaches to training of students and is connected with their preparation for life in an information society. The essential role in formation of the person, in thinking formation is taken away to development of abilities of students independently to work with the information, critically to comprehend the actions, to carry out their analysis and to apply the received knowledge and abilities in educational activity.

The higher education system in the Republic of Uzbekistan should prepare the graduates for active and creative ability to live in new information conditions. One of the basic means for achievement of this purpose in high schools is the subject training course «Digital economy» in which at a stage of modernization of higher education the emphasis is

placed on development of informative interests, intellectual and creative abilities by means information-technology communication technology (ICT).

The decision of the given problem assumes working out of such methods and organizational forms of the doctrine which would provide not only transfer of the saved up potential of knowledge and abilities, about and, first of all, formation and development in students of abilities or competence, allowing them actively to seize this knowledge in the present and to master new ways of activity in the future.

The considerable share of responsibility for preparation of students for digital economy and ICT lies on teachers who should be guided by new programs.

Since 2012 the Government of the Republic of Uzbekistan undertakes concrete steps to a direction of introduction of digital technologies.

Two programs of advancement of digital development in the country have been started: « Program of development of infrastructure ICT 2015-2019» (9 projects) and «Program of development of the electronic government 2013-2020» (28 projects).

The given programs are supervised by the Ministry of development of information technology and communication (since 2015). In the Republic of the Uzbekistan within the limits of the Program of development of the electronic government 265 online services and 600 government agencies have been connected, feedback mechanisms with users concerning quality of services and electronic participation are realized, the transparency of granting of the state services has been raised, the call-center and the uniform centers of granting of services in 194 areas of the country have been created.

In March, 2015 in the Republic of Uzbekistan the Portal of the open data <a href="https://data.gov.uz/ru">https://data.gov.uz/ru</a> on which the government has unloaded 709 packages of the data on 15 subject domains from 63 suppliers of the data have been started. The quantity of loadings of the data has made 267 thousand. Packages of the data also have interfaces API for developers of appendices.

In the Republic of Uzbekistan has confirmed readiness to co-operate with the World Bank and with other countries of region for development of competitive sector of ICT and trebling of its contribution to national economy.

At the present stage of development of a society continuation of formation in the field of computer science and ICT and digital economy, as the profile training differentiated on volume and the maintenance depending on interests and an orientation of students, trained on specialties ICT is necessary.

The methodical system of training to computer science and ICT will be complete if in it of rules, the parity of the basic components of educational activity of students is defined and by dynamics of their



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formation is coordinated with programs of formation of special disciplines on ICT to specialties.

Training to computer science and ICT should consider not only specific features of students and their various levels of training standard, but also various level preparation of teachers of computer science, where

Possibilities of display of creativity of students it is huge. At teaching of digital economy it is necessary to consider it in three segments, in sector of suppliers and buyers of the real goods and services, in sector of software developers and technologies and in sector of an infrastructure in the form of legislative base, system of a professional training, channels of transfer and data storage of all kinds.

It includes such directions as Bigdata, artificial intelligence, Blockchain, quantum technologies, industrial technologies, the industrial Internet etc.

For teaching of discipline on digital economy applied problems and practical real business cases are necessary to students. And demand for them is formed by a business environment.

Accordingly, to train students would be correct to begin with concept Bigdata.

It is the first of the list of the innovative priorities, the digital economy which has entered into concept

Bigdata appears there where there is a big sample of the initial data. On their basis it is possible to build the analysis and forecasting of the phenomena at macro level, to study social behavioral models, and also to reveal trends in the statistical given research experiments.

The basic problem in the field of Bigdata both for commercial, and for the state projects, is initial statement of a problem on application, finally, this data. The teacher should interpret and create a case-study on management, with use of the saved up files of the information to derive from them benefit and to pay back expenses for calculations.

The teacher analyses the digital economy, for example reading of section Bigdata is today not the one who knows last trends in analysis algorithms or can estimate speed of the future calculations, and the one who can create long-term and well-founded financial model on the basis of application of this technology.

But owners of the data for Bigdata objectively are social networks, big banks [11-15], communications service providers, federal retailers. They use and the successfully enough big data for the commercial objectives, someone in small cases, and someone in more scale and strategic questions. In паблик there are projects on Bigdata, concentrated round profiling of users the Internet and constructions of algorithms of the best rate targeting advertising. That is better to say - extensions to the search engines, aimed at increase of efficiency of sales of the goods of

the clients. Basically they can be successful financially only in short-term prospect and are in a greater degree tools of attraction of investment means, than projects which bring the structural contribution to economy.

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But each following project in the field of Bigdata is realized on newer approaches and technologies, than previous.

Would be correct to allocate the concrete number of initiatives in the field of Bigdata in the education sphere. And if the potential of such projects remained not at level of internal use the state, and was embodied in widespread public tools, it would become the most powerful driver of development of digital economy.

Crypto currency Bitkoin constructed on technology Blockchain, is already invented and even is emitted. The teacher should find out sense of development national Crypto currencies, and then it will be more interesting to students in comparison with traditional electronic payment systems.

It is necessary to use Blockchain not in a context of monetary face values, and in the field of conducting the state registers. Experiments with block chains in public sector are accelerated all over the world, on such way there are USA in the field of public health services and variety of other branches, Sweden in the field of registration of the property rights, Great Britain in the field of maintenance with pension grants.

Introduction Blockchain in sphere of registration of the property rights only in the USA would save from 2 to 4 billion dollars a year. Thus the economy is accompanied by acceleration of operations, so development of commercial sector.

The major value of introduction Blockchain at state level is development of an ecosystem for occurrence something absolutely new and now still unknown. After all it is considered that Blockchain, having the American and Japanese roots, is cumulative result of researches in the field of cryptography and the decision of the problems formulated by micro-economics. That is drivers of its occurrence of a steel the areas which have been not connected directly with currencies and global monetary circulation. And presence of the most such subject problematic in the state just creates environment for new breaks, is that reserve.

## Conclusion.

Teaching on digital economy demands creation of long-term and well-founded financial model, on the basis of application of this technology the teacher should find out sense of development national crypto currency, and then it will be more interesting to students in comparison with traditional electronic payment systems. It is expedient to use Blockchain not in a context of monetary face values, and in the field of conducting the state registers.



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