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DEVELOPMENT OF ELECTRONIC EDUCATION SYSTEM USING SMART TECHNOLOGY

Разработка системы электронного образования с использованием Smarttechnology

This article discusses the topic of Smart City. Smart City concept to improve the efficiency of all city services. In the center of the mission of Smart City-a man and his needs. The author reveals the tasks, Smart education, smart-hospital, Smart-society, and the first step is a Smart-University. Particular attention is paid to The educational portal of the Department of Informatics of Eurasian national University after E. N. Gumilev

Keywords: *Smart City, Smart education, Kundelik.kz, Smart hospital, Smart Society, Smart University*

В данной статье рассматривается тема *Smart City*. Концеция Smart City повышения эффективности работы всех городских служб. В центре миссии Smart City — человек и его потребности. Автор раскрывает задачи *Smart education*, *Smart*-поликлиники, *Smart*- общества, и первой ступенью становится Smart-университет. Особое внимание обращает на Учебный портал кафедры «Информатики» Евразийского национального университета им. Е.Н. Гумилева

Ключевые слова: *Smart City, Smart education, Kundelik.kz, Smart*-поликлиника, *Smart*-общество, Smart-университет

Firstly we need to pay attention to what is "Smart City"? The advantages of new technologies are enough. For example, in smart homes, everything is easily managed. When you turn on the light with clapping hands, the TV can be turned off with voice. Also in the kitchen and bathroom you can do the same miracles. If you stretch your arms that water pours. All of them are happening in the society where we live. In order to accompany him, we must improve our knowledge. In addition, it is important to receive news in a timely manner. Now is the time for rapid dissemination of information.

Picture 1 – circuitry of smart city

What are the advantages of the world's largest smart cities? For example, when in the Finnish country is the most stable state in the world moves an ambulance, at all traffic lights green light. What city is "Smart City"? In simple terms, living in this city is easy and interesting than you think!?

The state program "Informational Kazakhstan-2020", approved in 2013, became the Foundation for the digital transformation of the country's economy and contributed to the development of the following factors: the transition to the information society, the improvement of public administration, the creation of institutions of" open and mobile government", the increase in the availability of information infrastructure not only for corporate structures, but also for the citizens of the country. It will be implemented in 4 directions.

- The first direction is to provide the rural region with broadband Internet and increase the transit potential of Kazakhstan.
- The second direction is the introduction of digital technologies in the field of transport and logistics, health, education, agriculture and e-Commerce.
- The third is to improve the quality of work of state bodies
- The fourth direction is the training of IT specialists. [7]

"Smart city" is the integration of information and communication technologies for the management of urban property, uniting schools, transport, places of public catering, libraries, hospitals, power plants, water supply, waste disposal and much more.

International consulting company McKinsey predicts the emergence of 600 "smart" cities by 2020

The advantages of smart city are to improve the living standards of citizens and to reduce the cost of work processes by automating activities that do not require the use of analytical skills.

The capital of the Chinese province of Ningxia Yinchuan is notable for the fact that it is the only city in the world that does not need Bank cards, travel cards and, accordingly, cash. Face instead. In order to pay for the service, you only need to substitute it under the facial recognition system, and the required amount will be automatically debited from your account.

Smart City in China is also a state goal. By 2050, the Chinese government plans to relocate 250 million rural residents to cities, and "smart cities" — this is exactly what can be an additional incentive for citizens.

In 2016, the smart city of Fujisawa was opened in Japan, where all houses use only solar energy, water consumption is reduced by 30%, and you can only use electric cars, bicycles and scooters [1].

The concept of Smart City is implemented in the five largest cities of Kazakhstan. These are projects such as Smart Astana, Smart Karaganda, Smart Ontystuk, Smart Almaty, Smart Aktobe

Smart-school. The goal is to ensure safety, convenience and automation of processes in schools of Astana. The main components – access control system (hereinafter-ACS), video surveillance, e-library, e-dining room and private office. Commissioned in June 2015, is functioning in the state, "School No. 3" and the state institution "School-Lyceum № 15". The introduction of ACS led to the full accounting of students at the entrance to the school building, as well as limited the entry of unauthorized persons.

The effect of the project:

- improving the safety of students in schools to 85%;
- preventing unauthorized persons from entering the school up to 90%;
- prevention of emergency situations in schools up to 75%;
- automation of the library Fund accounting for more than 60%.
- It is planned to scale in all schools of the capital by attracting investments and providing services on the service model [4].

Smart-hospital the Goal is to improve the quality of medical services by automating internal and external processes of hospitals. The main components of the project – information system, self-service terminal, online recording through the portal smart.astana.kz Commissioned in June 2015, it operates in the city polyclinic № 4 in Astana. Within the framework of the project, more than 300 workplaces were automated, 631 personnel were trained, more than 750 types of examination protocols were loaded into the project information system, more than 106 thousand

were served. patients through the information system of the project, recorded about two thousand patients to see a doctor online via the Internet and self-service terminal. The effect of the project:

- reducing the time of patient care physician of the clinic for up to 10 minutes;
- queues at the polyclinic registry are 30% longer%;
- improving the efficiency and informativeness of diagnostic studies at least 85%,
- saving of time of health workers.

It is planned to scale the project in all polyclinics of the capital by attracting investments and providing services on the service model [4].

Smart education-self-directed, motivated, flexible, technological learning smart learning is based on self-directed, motivated, flexible, enriched with resources and technological methods of learning.

The XXI century is a century when information technologies become an integral part of human life space. Today it is possible to state with confidence the fact of existence of new digital (network) generation of people for whom the mobile phone, the computer and the Internet are the same natural elements of their living space, as the nature and society. The influence of human capital is no longer enough for the development of modern education. It is necessary to change the educational environment itself, not just to increase the volume of education of the labor force, it is necessary to qualitatively change the content of education, its methods, tools and environments, a universal transition to SMART education is necessary. Currently, it is becoming the norm to conduct training sessions with students using multimedia presentations made in software packages such as Microsoft Power Point or Macromedia Flash. However, along with the usual presentation technologies in the field of education penetrate new so-called interactive technologies that allow you to get away from the presentation in the form of a slide show. The new form of presentation using interactive equipment (interactive whiteboards SMART Boards, interactive displays Sympodium) is a presentation created by the speaker during his speech – a presentation created here and now. On the interactive boards of SMART Boards you can write with a special marker, demonstrate educational material, make written comments on top of the image on the screen. In this case, all written on the interactive whiteboard SMART Board is transmitted to students, stored on magnetic media, printed, sent by e-mail to students absent from the lesson. The training material created during the lecture on the interactive whiteboard SMART Board is recorded by the built-in video recorder and can be repeatedly played [5].

Kundelik.kz -Kazakhstan it company, the developer of a unified electronic educational environment for teachers, students, parents, administration of educational organizations, as well as representatives of educational authorities. Automated educational information system "Cndac", which combines the capabilities of electronic document management for educational institutions and instruments of social network interaction between all participants of educational process: teachers, parents, and students.

Key activity:

* Modernization of school education.
* Integration of advanced ICT in the educational process.
* Development of interactive communication "teacher-student-parent".
* Introduction of a unified information exchange environment.
* Building and maintaining the school ecosystem.
* Providing distance education opportunities [6].

The world today is on the threshold of transition to a new stage of its development – a Smart society built around human-oriented "smart" digital technologies. Implementation of the Message Of President N. Ah. Nazarbayev's "Third modernization of Kazakhstan: global competitiveness" is associated with the transition to a Smart-society, and the first step is the Smart-University, leading to the modernization of the learning system based on the customer-oriented approach and innovative technologies. It is extremely important not to miss the "smart" technologies, and also to remember that Smart-society is equally based on the "smart"

infrastructure developed jointly by the state, business and science, "smart" citizens, the supplier of which is Smart-education and Smart-University.

Currently, work is underway to implement the educational portal – as a single integrated entry point for students, teachers, scientific and administrative staff to access educational content, information and reference resources of the University. This work involves full automation of academic activities on the basis of a single service-oriented architecture, which includes functions for managing the educational process, educational programs, content, etc.

Educational portal is a complex of sites that provides the educational process. Its main goal is

to gather all the necessary information in one place.

Educational portal of the Department of Informatics Eurasian national University after L. N. Gumilev will verify information. Users registers in the database. The portal provides the student with the necessary information (curriculum, work program, class schedule, guidelines for the SRS, exam and credit schedules, etc.)

The teacher loads all assignments for the semester. Homework is given according to the teacher's plan. The student responds within the given time. The teacher evaluates the tasks of each child individually. At the end of the year, the final mark will be automatically displayed.

The effectiveness of the educational portal is that teacher and student can work in one window. New technology are widely introduced the modern learning process. The lesson is one of the most thig importance in education of generation, which id is not only interested student during subjects, but also educates conscious thinking, able to form public views, they have own opinion, understand the various contradictions that occur in society,they speak freely and openly Express their opinion.

Every teacher should use new technology. "The teacher lives as long as he studies, as soon as he ceases to study, the teacher dies in it" - at the end of the XIX century Russian teacher K. D. Ushinsky in these words succinctly expressed the characteristics of the professional qualities of the teacher. In order to make a lesson more attractive and interesting, it is necessary to transform each lesson. It is necessary to use elements of different technology, do not limited by only one technology.

Article 8 "about education" of the law of the Republic of Kazakhstan that says: "the main task of the education system is the introduction of new technology in education, Informatization of education, access to international communication networks, creation of the necessary conditions for education aimed at the formation, development and professional development of the individual on the basis of national and universal values, achievements of science and practice" [3].

In conclusion, today the world's advanced technology and the latest searches are widely used in the domestic education system. Creation of Smart University is the basis of Smart City, and I hope that as a result of joint work we will create Smart-Kazakhstan.

List of references

1. Analytical journal “Alter Idea " 30 January 2019.
2. Erkebaeva G.G. “Objectives, directions and content of the national education system of the Republic of Kazakhstan". International scientific and practical conference. Shymkent. 2011.-p.6-9.
3. The law of the Republic of Kazakhstan On education. 27 July2007. № 319 law.
4. Zolotukhina N.V., Zeldin E. SMART-technologies in the educational process MBEI "secondary school №1». Education without borders. Moscow 2018.

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