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**Digital revolution and
journalistic education**

Digital technologies considerably change structure and quality of education in Kazakhstan. Authors of a research recognize that process of training within use of digital technologies is modernized in three directions: formal (organizational) processes; substantial aspect of transfer of knowledge in system the teacher student and the mental concept; containing digital literacy and a background of the student. As a basic component and an example of digital education of students of al-Farabi Kazakh National University authors of a research studied organizational, substantial and mental concepts of reforming of educational process within education digitalization.

Key words: digital revolution, digital technologies, students, digitalization, corpus of text, Internet, education, journalism, communications.

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**Журналистік білім беру және
сандық революция**

Заманауи сандық технологиялардың Қазақстанның білім беру саласында қолданыла бастауы жүйенің сапалық және құрылымдық жағына бірқатар өзгерістер енгізді. Зерттеу авторлары сандық технологияларды қолданып оқыту барысында оқу үдерісінің үш бағыттағы дамуын: ұйымдастыру үдерісі; оқытушы-студент жүйесі бойынша мазмұнды білім беру және студенттің сандық технологияларды игерген білімі мен жеке студенттің бекграундық шамасын негізге алған. ҚазҰУ-дың студенттеріне сандық технологиялар негізінде білім беруде базалық компонент ретінде авторлар оқу үдерісін ұйымдастырудың мазмұнды және ментальді тұжырымдарын зерттеген.

Түйін сөздер: санды революция, сандық технологиялар, студенттік, санға айналдыру, мәтін кешені, Интернет, білім беру, журналистика, коммуникациялар.

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Мухамадиева Л.И.

**Цифровая революция и
журналистское образование**

Цифровые технологии значительно меняют структуру и качество образования в Казахстане. Авторы исследования исходят из того, что процесс обучения в рамках использования цифровых технологий модернизируется по трем направлениям: формальные (организационные) процессы; содержательный аспект передачи знаний в системе преподаватель-студент и ментальный концепт, содержащий цифровую грамотность и бекграунд самого студента. В качестве базового компонента и примера цифрового образования студентов КазНУ авторы исследования изучили организационные, содержательные и ментальные концепты реформирования учебного процесса в рамках цифровизации образования.

Ключевые слова: цифровая революция, цифровые технологии, студенчество, цифровизация, корпус текстов, Интернет, образование, журналистика, коммуникации.

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DIGITAL REVOLUTION AND JOURNALISTIC EDUCATION

Introduction

By the beginning of the XXI century the world had changed out of all recognition. The dreams of such fantasy and anti-utopia authors as Ray Bradbury, Jules Verne and George Orwell had been discovered, invented and implemented. For instance, giant jetliners, cellular phones, IPADS and IPHONES, computer network. A fragile human and powerful, hyper-intelligent machines had started the close dialogue which has been lasting up to the present time.

By analogy with the thought, which has been expressed by Marshal McLuhan in the book «The Gutenberg' Galaxy», the Internet Galaxy took off thirty years ago. In case if the print invention has lead to the democratization of knowledge and its transmission in terms of material welfare the Internet has transformed the attitude to the Information in principle.
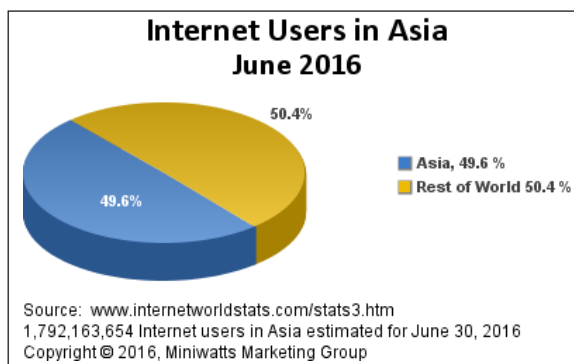
The aim of investigation – to study the impact of digital revolution on students in Kazakhstan. The digital technologies are really changing the education structure and quality in Kazakhstan. The authors of the research emanate from the fact that education process, within the framework of using the digital technologies, is upgraded following the three directions: formal organizational processes; informative aspect of knowledge transferring within the system a tutor-student and mental concept which involves the digital literacy and background of the student.

The object of the research of the given article is the digital revolution at University.

The subject of the research **is** – how the digital revolution affects on forming the informative culture and thinking abilities of students.

The slide shows that nearly half of the world internet users live in Asia.

For post-Soviet development period Kazakhstan has substantially advanced in the field of information. As it is seen from the table the number of the Internet users has risen up nearly as twice for the last five years. Today one in two citizens in Kazakhstan gets information, communicates and works on the Internet.

Internet Users in Asia
June 2016

50.4%

49.6%

■ Asia, 49.6 %
■ Rest of World 50.4 %

Source: www.internetworldstats.com/stats3.htm
1,792,163,654 Internet users in Asia estimated for June 30, 2016
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Internet Usage and Population Statistics:

YEAR	Users	Population	% Pen.	GDP p.c.*
2000	70,000	14,841,900	0.5 %	US$ n/a
2005	400,000	14,711,068	2.7 %	US$ 2,930
2007	1,247,000	14,653,998	8.5 %	US$ 6,748
2008	2,300,000	15,399,437	14.9 %	US$ 7,019
2009	3,160,000	15,399,437	14.9 %	US$ 7,019
2010	5,300,000	15,460,484	34.3 %	US$ 8,108
2016	9,966,444	18,360,353	54.3 %	US$ 11,670

Note: Per Capita GDP in US dollars, source International Monetary Fund.

By today, the state programme Kazakhstan-2020 has been approved. The aim of which is to provide accessibility to the information and communication infrastructure. Following the anticipated results the information and communication accessibility comprises – 100%, the number of the Internet users – 75%, the share of scientifically based educational institutions connected to the global national educative network – 100%.

It is seen how dramatically the Internet becomes the integral part of our life conquering more and more new hearts.

This in turn, impacts the system, methods and the educational process of the students of the Department of Journalism at our university, as well as technology and trends in the education process.

Modifying, which take place in the contemporary society due to the digital technologies, which are extremely developing, are actively being disputed by the users and the representatives of different professional associations.

The especial article in the magazine «The Internet Psychology» is devoted to the issue, the presentation of Ken Robinson on TED (https://newtonew.com/overview/ken-robinson-pora-menjat-sistemu-

obrazovanija), monographies [2–7]). These points are also researched in interactive and comparison – mode by plenty of organizations (see., for instance, FOM projects [8],UNICEF [9], Gorshenin Institute [10], UN, ITU and OECD reports [11–14]), MSU – Helsenki University project «Russian Media 2007: Competition and Convergence» [15], Al-Ffarabi Kazakh National University scientists' scientific researches [16].

The digital technologies substantially are changing the education structure and quality in Kazakhstan. Resulting from this the educational process might be researched following three directions: formal organizational processes; informative aspect of knowledge transfer within the system a tutor-student and mental concept which involves the digital literacy and background of the student.

The specialty – journalism within this theme is characterized by permanent contingence with information flows. Today students-journalists have stopped being audience. They have become members of the media sphere – bloggers, social network moderators. According to the data of the researchers it is known that the thirds of the upper – course students in the department of journalism are keeping their own blogs and have 150 and more subscribers.

The basic component

For a start there is need to define the essential notions, which were used in the research. *Digital Revolution,* which began in 1980-s and at the moment it is in progress and defined as fast moving and mass transmission from the analogue data processing, saving and transforming method to the digital one [17].

The digital revolution and youth concepts corresponding (overlapping) is the most interesting point to do the research because the learning students group is the most active and mobile social category and the existence of which is provided by the training which is organized following the definite programme and serves the aim to execute the highly professional and social role in material and cultural production[18].Being the most dynamic part of the society the students are sensitive to any changes in its structure, political and economical transformations and immediately respond to the new technological, cultural and educational trends. And the most vital thing is that the students are the powerful young people union who have socially important goals and tasks and possess the higher degree of psychological and behavior freedom than the representatives of older generation.

The digital revolution in our country is characterized by some transitivity moving media in the globalized world segment of the communication. Journalism in the Republic of Kazakhstan has become a segment of the world of communications. Accordingly, media, in a way, has own matrices of knowledge of the surrounding world, broadcasting them in own various blogs, pages, social networks and the like. Hence, teachers of journalism and media coaches should be ahead of the communication learners and with actors of information field, moderators, opinion creators and thought leaders.

As a result, this process increases the requirements faced by Professors, obliges not simply transfer knowledge, but also synthesize the new forms of disclosure of natural and social processes that contribute to the development of the students to be proactive and creative thinkers in order to understand global processes and prospects.

This scientific trend is completely new for Kazakhstan's science. And it is imperative for the independence of the country's media pursuing democratic concepts. Being the educators, while teaching at the Department of Journalism and working in this direction, we are sure it is essential to verify that the scientific vectors we are striving after could be compared to the best achievements of other educational institutions, and be implemented later in our own work.

The evidence-based research data

As a base component and sample of the digital education of the students in Kazakh National University the researchers have investigated the formal and organizational features of the educational process. It involves the unique Intranet – system «Univer», electronic library and digitalization the university campus.

 The system Univer has been working for five years and represents the local information network of the Kazakh National University which provides wint the high level automazed educational process management, activates the students' initiativity and the direct interest in the education outcome. Besides, the technology provides with every days and well–protected monitoring of a tutor and student. The Internet register, within the KazNU system Univer, is constantly fulfilled during the educational process and extremely simplifies the registration and monitoring procedures. The student's registration for getting the educational disciplines in the forthcoming academic year is executed in the system «Univer» (http://univer.kaznu.kz) in the Al-Ffarabi KazNU, including the systematical and tutorial

assistance of departments, dean's officers, advisory and the registration online offices.

The Intranet system of KazNU allows the students to see grades, choose a course and tutors. And it provides the communication of students with tutors. The assignments, the up-to-date literature and online lectures are also represented there.

This approach minimized and eliminated the human factor in determining the state and teaching load, as they are formed by students of guidance, not liking the administration departments. Accessibility of Intranet systems creates a new level of protection from corruption.

On the first stage, such a new innovation seemed allogenic and unhandy but with each year the trust to the system is growing.

Within the research, for the last three years the students' preferences have been defined according to the following criteria's:

1.   access to the system Univer and the interface friendliness. Easy/handy/difficult/unhandy;

2.   the discipline content quality and UMKD loading high/low/complete/partial;

3.   the utility level-high/low;

4.   the cancellation of the system. Agree/disagree;

5.   the quality and access to the Internet for students at the campus territory high/low.

The results are following:
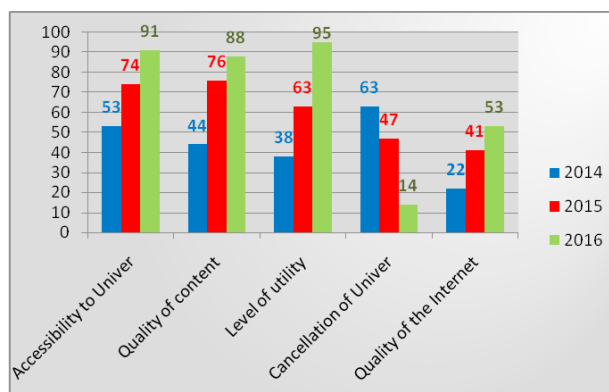
As it is shown in diagrams, the system Univer becomes popular among students. The willing to use its advantages in educational process appears. However, the low quality of the Internet access upsets. It, in its turn, impacts on the educational and self-education processes.

While answering the last question it is necessary to highlight that the students meant the access to the Internet through the individual gadgets. As

the whole computer park at University, including the computer classes, auditoriums, staffrooms and a library, is connected to the Internet.

The important part of any learning process is the access to the educational materials. The University research library has an electronic catalogue, which has been being led since 1992, and it is presented on the Internet, and includes the text information database and computerized bibliographical scientific work file composed by the faculty of the University. The research library has been doing copies of electronic course books since 1999 and more than 150 books have already been issued. The faculty scientific works are represented on the Internet by the research library. The information about the library is given online (http:\\lib.kaznu.kz).

Now it can be seen that the KazNU digitalization is extremely developing. Within the given research, it is difficult to clarify all components of the digital revolution at KazNU. Undoubtly they include Robotocenter, the **collegialbusiness – incubator (infra-**structural zone for creating and developing the innovative projects),interactive classes, Global classes, the Internet cafe, the service center «Keremet», the KazNU teleradionetwork, the KazNU publishing house «Kazakh Universitety» and others.

Going to the second part of the research – informative aspect of knowledge transferring within the system a tutor-student- the authors emanate from the fact that the digital technologies can do different impacts on the educational process of the students from the natural science and humanitarian faculties. Consequently, we are concentrating on studying aspects, which are necessary to educate the students of the journalism-faculty.

The specialty attracts socio-active people who have organizational and communication skills. Their cooperation with a teacher is built on the interactive platform.

In order to highlight the main communication aspects the authors of the article have been using the observation method, benchmarking analysis, all sorts of questionnaires for finding out the reactions and attitude of the students to the digital technologies.

The research have been being provided for three years, from 2014 to 2016. The students have been replying to the following questions:

1. What form of the questions is preferable: classical or innovative?
2. Should be a lecture useful or interesting (challenging)?
3. Weather a teacher should make students think or just know the relevant volume of the material

4. Weather a teacher should be professional or a gifted lecturer.
5. If the traditional lectures need the digital technologies or not.
6. What is your attitude to the online lectures?
The results are following:
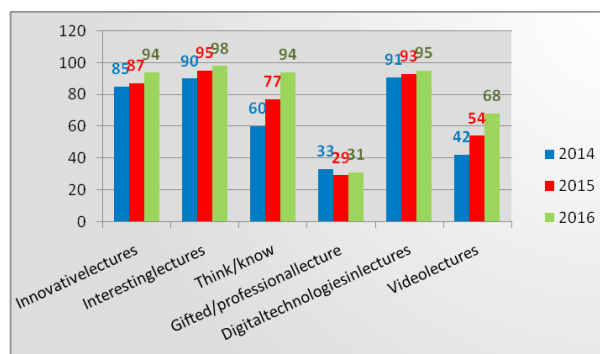
Consequently, the students-journalists prefer the advanced educational methods, professional teachers who are able to swap with them their new knowledge and practical experience in an interesting and accessible form which can be easily transformed into the skills of the chosen profession, regardless of the year when they were questioned.

Going to the research of the mental concept education, which involves the digital literacy and background of the student it, is necessary to admit that nowadays students are the outcome of the digital revolution. They cannot imagine the education process without the Internet-resources and modern gadgets. According to the research, the popularity level of modern gadgets among students has increased up to ten times for the last several years.

The authors proceed from the fact that the mental concept – it is an image of student thinking, common spiritual disposition of the future journalist, his social and psychological attitudes, manner of feeling and thinking. By other words, it is students understanding of their abilities and goals in acquiring new skills and habits on the base of valuable milestones.
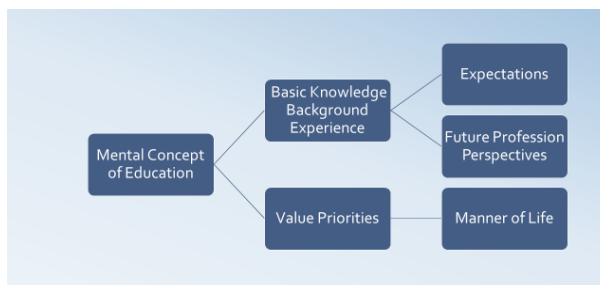
The given research has shown that the computer technologies make a direct impact on the quality of education, the acquiring level, the memory and the ability to implement the acquired knowledge which, in its turn, becomes skills and habits and others. The investigation of the range of the educational materials' acquiring parameters and indexes has revealed the students' equal to the desire of students to printed sources, as well as electronic.
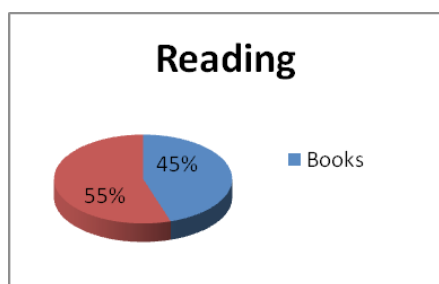
The students' sympathy to the paperback books is explained by its great consistency and convergence in working out the personal understanding of the world. Moreover, following their view the paperback books are remembered better.

The competition between the paperback and electronic books has reached its peak. The paperback editions, letting the electronic ones be more operative and accessible, however remain being reliable and intellectual sources of information.
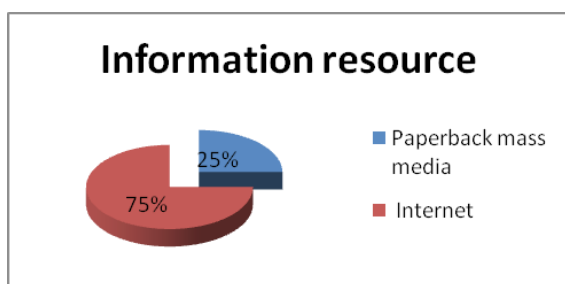
Read the paperback mass media – 25%
Only Internet – options/mobile applications/ – 75%
The discrepancy between the students and the teachers in apprehension the value of the paperback editions is also mentioned. The latter ones require the students to read original texts while the students try to use contracted versions and summaries of art and scientific literature.

As for impact of the digital revolution on the youth mentality, there are different visions. Some researchers consider the process as harmful for intellectual potential of the nation. The others consider it as the opportunity to exchange information globally and raise the level of freedom.

The authors are tend to think that the digital technologies, following the professional approach, are able to enrich the educational process, enhance the multimedia component, strengthen the adaptation function of the education, prepare students to new challenges of the profession.

Beyond the framework of the presentation because of the time limit, there are the range of investigation trends, which have not been considered. For instance, the social networks as the factor of information exchange, the level of critical thinking of the ground and upper courses, the implementation degree of new approaches by taken into consideration the different ages of the faculty and others.

Conclusion

Succinctly, the essential results of the research are the following:

The Al-Farabi KazNU degree of completion to the digital revolution is high;

The necessity to use the digital technologies is admitted by both the students and the teachers as well;

There is a backlog of response among the teachers to the students' digital demands;

It is obvious that there is lack of engineering thinking of the students in the humanitarian departments;

The format of relationship the tutor – student is getting better (from patronage to cooperation);

The faculty yet does not possess the monopoly over knowledge so that the digital technologies make the opportunity to have innovative information equal for both the students and the teachers as well;

The journalism – teacher does not have to train the thought leaders but start working with them from the first teaching stage in University.

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