The Impact of Communication Technology on the Development of Modern Journalism in Kazakhstan

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Abstract—Development of mass means of communication is carried out in the era of the global digital revolution. Journalism uses new information and communication technologies in its activities. The Internet, new media and multimedia technology have revolutionized modern journalism as well as the educational process of training journalists. This paper presents new information-communication technologies which has become a real factor in social mobility, social security and safety. The main task of the media that can be advanced is not just to collect, receive and present information but to present new technical possibilities in journalism education. The main reason of multi-mediation of media in recent years has been dramatically changed, and now we begin to think and consume the information differently. This article is about communication technologies and their impact on modern media, also it demonstrates the changes of journalism education in Kazakhstan.

Index Terms—Information-communication technologies, new media, journalism, education, convergence, digital broadcasting

I. INTRODUCTION

The newest information and communication technologies (ICT) made it possible to produce, process, store and distribute various types of information at a qualitatively new level. The development of electronic media is carried out in the era of the global digital revolution. Modern achievements in the field of digital broadcasting have changed the modern journalism, which is becoming digital and multimedia. With the appearance of new media formats, modern journalism has evolved in many areas. For example, multimedia journalism is a way to talk about events, phenomena in a new way, using the capabilities of each media and communication. Convergent journalism is based on the multimedia presentation of content and its distribution across various media platforms. All these types of modern journalism are connected with new information technologies, the Internet development and the transition to digital format, today we observe the process of digitalization of communication processes.

The purpose of the article is to show the development of modern journalism in Kazakhstan, which has changed under the influence of new information and communication technologies in the world and in the country.

Tasks:
- To show changes in the information sphere influenced by digital technologies,
- To reveal the transformation of mass media in the era of globalization,
- To analyze new forms of modern journalism,
- To identify communication technologies in journalism education of the Kazakh National University named after Al-Farabi,
- To show the work of the modern multimedia journalist in the XXI century.

The object of the research is modern digital journalism, multimedia journalist. Digital journalism is a journalism that uses modern information digital technologies in multimedia mode, producing information products, news for all types of media. The educational digital TV and radio studio was created at the Faculty Journalism in Al-Farabi Kazakh National University, which became a multimedia platform for education, for students, for interaction new media. Using wide possibilities of network journalism, multimedia can complement and mutually enrich the activity of any media. Digital journalism uses wide possibilities of Internet technologies, long-reads, podcasts, mobile applications, new ways and genres of new media, for example, Web-documentary, where a documentary film (a genre of television and cinema) is complemented with the help of Internet and computer graphics, video, photos, maps, diagrams, audio-video and animated materials.

II. MASS MEDIA TRANSFORMATION IN THE DIGITAL AGE

A new type of modern journalism - digital journalism began to develop at the beginning of the XXI century, when digital equipment appeared and gradually many countries began to pass to digital television and radio broadcasting, when they actively began to use multimedia technologies in order to prepare information materials.

Television and radio channels, newspapers, magazines and news agencies have their own websites. A third of online publications do not have a printed and broadcast prototype. Internet media are divided into Internet representations of traditional media and the network media itself, which don’t have broadcasting and print media.
versions a variety of information that quickly appears, updated, commented. These are messages in the media, in social networks, in the blogosphere, on numerous sites of various organizations, companies, and firms. Here are we can see photos, videos, texts, graphics, charts, sound recording, comments.

The network publications segment has been evolving since the mid-1990s. Since 1995, e-journalism has been actively developing in the world. In 1996, there were 1,300 online publications of printed newspaper format in the USA, and at the beginning of the XXI century almost all American newspapers and magazines were presented online. CNN, an American cable information service, launched a website in 1995, and by 2001 created 14 specialized thematic sites.

In 1996, the BBC began its webcasting, a year later, the information site of the “BBC-Online” corporation began to operate, later it was called BBCi, in the early 21st century, this site became popular in Europe, it combined text resources and the Internet -broadcasting. Internet broadcasting, as researcher A. Peskin notes, "opens up great prospects for network users: these are offers from many television channels (and some can be watched only through the Internet), the opportunity to study, thanks to the availability of various educational programs, and through of services, you can set up your own Internet broadcasting by uploading your own video materials to the web" [1].

The Top of e-publications in the “news” category in Kazakhstan includes:

2. Zakon.kz: - 185,523 hosts, 276,143 visitors, 1,449,923 views.
3. RTBCh “Kazakhstan”: - 81,281 hosts, 95,775 visitors, 349,263 views.
5. The Caravan: - 56,691 hosts, 64,253 visitors, 261,175 views [2].

Mobile media is a mobile version of online publications and Internet broadcasting, a simplified version of sites with the possibility of reading, watching videos, listening to audio, graphics, and other mobile services. Mobile Internet and its applications provide rapid, easy access to operational information: textual, audiovisual, graphic, animation, etc.

Convergence has become the main media trend in the XXI century, it means the merging of all types and media carriers into one in order to transmit various digital content to the user. The term “convergence,” according to M. Castells, allows “to open a global window of unlimited interactive communication possibilities in video-audio and text formats by our team” [3]. Another characteristic feature of modern convergent journalism is the active use of infographics. It is created with the help of drawings, photographs, diagrams, paintings and other illustrations. Visibility of infographics attracts users of the Web, mobile communication, causing greater confidence to the received information.

The concept of “convergence” (from the Latin — approaching, converging, merging) firstly was used by scientists in the socio-political sciences in the 1950s, in the 1970s - researchers began to use it in communication processes. The “convergence” was widely spread in the 1990s – early XXI century with the rapid development of the Internet.

The rapid growth of Internet users takes place in Kazakhstan. According to the report of the Kazakh Ministry of communications and information at the beginning of 2018, the country had 13 million Internet users (for instance, the population of the Republic of Kazakhstan is more then 18 million).

Currently, since 2013, the state program "Information Kazakhstan 2020" is being implemented. The program aims to introduce information and communication technologies in all spheres of the economy. The program “Information Kazakhstan 2020" places special emphasis on the development of the media space, on the production of Kazakhstani content, on increasing the level of satisfaction with the domestic information and cultural product. This program contributes to the creation of an open information environment for the socio-economic and cultural development of Kazakhstan's society.

Currently, the state program “Digital Kazakhstan” is being implemented, which will create a new digital platform, improve business opportunities and improve the quality of life of the population.

The convergence of media is a process in the modern media industry that began in the second half of the 1990s, when media began to adapt to new information technologies, explore the Internet and create their own website versions on the Internet. As the convergent journalism theoretician and practitioner E.A. Baranova notes, “the process of media convergence includes two main stages of development”.

Stage 1:
1. Merging through the digitizing the content of various media with the Internet platform, which allows you to distribute content using two media platforms.
2. Merging of previously different types of media (print, radio, TV) based on the Internet platform, which is achieved by digitizing the content and allows you to simultaneously use text, graphic, audio and video platforms to present information.
3. Merging by digitizing content not only from the Internet, but also from mobile, print media, PDA, e-paper, kindle platforms.

Stage 2:
1. Merging of various media markets on the basis of one.
2. With the unification of editors of a site, a site with a broadcasting resource - a TV channel or a radio station.
3. The unification of the newspaper’s editorial board with its online version and applications with television
and radio studios (photo services, advertising services, etc.) [4].

As the researcher E. Dudinova notes, along with many positive trends in the development of the MMC, there are potentially dangerous spheres in the development of journalism: “The first is a loss in confidence in the media, an increase in fake and unverified information, puff piece, information wars. The second is the tightening of the working conditions of journalists, and the world tendency to reduce their level of security and safety. The third is the growing dynamics of the competition of traditional media and “new” (social networks of the Internet media itself), leading to the modification of the journalism body itself, the clip structure of texts, minimization of analytics, populism ”[5].

There methods for creating news releases has changed, as well as informational messages in connection with the Internet appearance. This was manifested in the following, as researcher O. Lashchuk notes:

1. News materials are created, edited and perceived by consumers mainly in electronic form, which allows you to use multimedia features:
   - The combination of different content types,
   - Hypermediacy,
   - Interactivity,
   - Lack of technical restrictions on the amount of content,
   - Multiple (secondary) editing.

2. The number of news sources has increased rapidly, it became easily accessible [6].

Scientists A.V. Brushinsky and O.K.Tikhomirov emphasize that “the peculiarity of modern transmedia-thinking is its specific continuity. Thinking is a socially conditioned, inextricably linked with speech mental process of self-seeking and the discovery by the person of something essentially new, i.e. mediated and generalized reflection of reality in the course of its analysis and synthesis, arising on the basis of practical activity from sensory cognition and far beyond its limits ”[7]. Thanks to interactivity, hypertextuality and multimedia, we can keep a transmedia narration on the Internet, in network journalism, which contributes to the development of longread.

In the 21st century, new forms of modern multimedia journalism, such as the “longread”, are emerging. Longread is a format of hypertext information in multimedia journalism, its basis on such type of speech as a narration, it is a story about events, phenomena, unfolded in time and space. The question of the longread format firstly was posed in 2010 in Kevin Moloney’s work “Transferring the transmedia storytelling to journalism”. Longread researchers note that the text component of Longread along with multimedia platforms on the Internet gets new forms and makes it possible to characterize Longread as a new journalism format, and as a new genre of convergent journalism, and as a new method of delivering information to the mass media.

Over the past decade, the media consumption of the Kazakhstan people has changed. On the one hand, the globalization of the information space and the intensive development of new media platforms have significantly expanded the country's media market. On the other hand, we observe multi-vector changes in the socio-cultural image of the media audience. So the older generation prefers traditional media, and in particular, television. As D.Naysbit writes, “the most significant intrusion of technology into life turned out to be television, which is much more lively and much more time consuming than radio and telephone [8]. Television watching (television viewing) is one of the important characteristics of the culture of everyday life of a modern person, he is preferred especially in the evening hours. Radio listen mostly car owners. The younger generation (students, schoolchildren) prefers computers, the Internet, social networks.

Currently, the media are actively working in social networks, they create their own pages there, where they browse news, find new topics for materials, new characters for articles, videos, engage in promotion, attract the attention of the audience and interact with it.

III. COMMUNICATION TECHNOLOGY IN JOURNALISM EDUCATION OF AL-FARABI KAZAKH NATIONAL UNIVERSITY (KAZNU)

The boom of the computer industry contributed to the development of the electronics industry, an effective network of computer communications in the educational, social, banking and interregional telecommunications. Many new ICTs have emerged with the advent of the Internet, which is increasingly used in the academic and media field. Digital technology has not bypassed the sphere of higher education. The Internet, new media and new digital technology have revolutionized the educational process of training future journalists. Disciplines began to emerge that correspond to the new age of the digital era, such as: “Digital journalism, “Convergent journalism”, “Internet journalism”, “Modern media technologies”, “Multimedia journalism”, “Audiovisual and digital media”, “Media education”, “Media Literacy” and others.

Currently, various trainings, webinars on facting, data journalism, etc. are being held. Sergey Karpov, a specialist of the Communication and Information Department of the UNESCO Cluster Office in Almaty, presented round-table discussions and conferences to communication specialists, teachers, new educational models, educational plans, in particular, “Model curriculum in journalism” where were sections dedicated to the global academic culture of journalistic education, specialized journalism literacy, curriculums on: “Gender and journalism,” “Science journalism and bioethics”, “journalism intercultural dialogue” “Data journalism” et al.
In April 2018, an international conference on theme “Models of teaching international journalism for sustainable development” was held at the Al-Farabi Kazakh National University at the Faculty of Journalism, where experts from the media sphere analyzed the current development of modern journalism and also spoke about the problems of the profession. One of such problems is the growing competition between traditional media and new media (especially Internet media and social networks), leading to changes in the media system, the clip structure of texts, minimization of analytics and the growth of entertainment material. The second problem is an increase in unverified, fake information, puff pieces, information wars, which leads to declining confidence in mass media. The third is decrease in the level of security and safety of journalists and toughening their working conditions. All these factors affect the public sphere of the country. Therefore, the role of journalism faculties that educate future communicologists, moderators, and correspondents is increasing in connection with the listed issues relating to the media space. Recently, seminars and trainings were held on the topic “Factchecking” in the MediaNet, Internews-Kazakhstan and at the Faculty of Journalism of the Al-Farabi Kazakh National University. Gradually, this topical issue becomes a separate discipline, which is already being studied by students of journalism faculties. Now this subject more than ever claimed by students.

There is a television and radio studio (TRS) at the faculty of journalism of Al-Farabi Kazakh National University which contributes a new approach in the training of television journalists. The television and radio studio of Al-Farabi KazNU named after M.K. Barmankulov of journalism faculty is a teaching-production television studio and radio studio with the latest digital equipment and all the technical conditions for the creation of television and radio programs.

Thanks to the digital broadcasting equipment, the Barmankulov Teleradiocomplex at the Faculty of Journalism of the Al-Farabi Kazakh National University allows you to train digital journalism specialists who are able to work in multimedia mode, both in traditional and in convergent media.

Every day students of journalism faculty of Al-Farabi KazNU produce radio news in the Kazakh and Russian languages about the life of the University. All TV shows are broadcasted on monitors located in the territory of Al-Farabi KazNU. Programs usually come under the headings: "Official news", "Science", "Report from the student audience," "A portrait of the scientist", "No comment" and others. Television and radio complex covers the whole university life and activities such as scientific, educational, public, cultural, sports. Programs of TRC Al-Farabi KazNU named after M.K. Barmankulov has a big social significance to maintain and enhance academic, cultural values, knowledge and traditions of the best examples of the world science and education.

Also tele-radio complex produces documentaries: portrait television stories about famous scientists, professors of KazNU, as well as numerous television programs, such as "Nanotechnology in KazNU" about the nuclear physicist, social commercials about the danger of smoking and etc.

Every day training on radio and television journalism disciplines is conducted on TV and radio studio, where theoretical and practical classes are taught by teachers of the Department of television and radio journalism on journalism faculty. Every week students meet with the leading journalists of the country. Their training seminars are conducted by television and radio journalists of broadcasting company "Kazakhstan", "Khabar", "31 channel", "Astana", "KTK", "Almaty" and others. They shared with students about professional and life experience, told how they came into the profession as well as how they have achieved great heights in their craft. All meetings and workshops are covered on the special web portal of journalism faculty - www.jurfak.kz and also on the university website – www/kaznu.kz.

Many graduates of the journalism faculty work in specialized Internet portals, sites, which are growing day by day in the country. Some of them become SMM-specialists, i.e. social media managers who help many companies and organizations to declare themselves, present and work in close cooperation with the activities of social networks that help them find partners, markets, establish various contacts. Also they help to reinforce contacts with the audience of the media editorial, as well as with various organizations, companies to promote their products, services, establish contacts, collaborate, and inform using social networks that have a huge network of users. Hence, we observe the activity of SMM-activity, SMM-specialists in the development of new communication channels.

The work of the broadcast journalist requires professional skills that are developed through continuous training and accumulation of practical experience, in addition to a broad range of interests, apart from ideological positions, natural abilities, and educational levels. The mastering of profession is possible only as a result of course study of theoretical disciplines in combination with a daily creative practice.

Kazakhstani media are actively implementing a converged, multimedia newsroom. Almost all the major media holding companies began to create multimedia space. Convergent editorial office allows you to prepare more informative materials that combine the depth of multimedia journalism, emotion and online interactivity.

The creation of different media and informational contexts requires special skills, professional journalistic skill. Multimedia journalists are actively changing over to converged journalism, because the preparation of TV material requires knowledge of technology, various television equipment and editing. And these skills are the basis of mastery of multimedia journalism that allow faster learning in the field of newspaper, publishing,
photo business, as well as Internet design, network content.

IV. MULTIMEDIA JOURNALIST

A journalist in the modern period becomes both a designer, a producer, an operator, a sound engineer, a director. He must be able to work with a large amount of information, find it, process, analyze, find the main idea, be able to use modern digital technologies: take pictures, video, record on a tape recorder, mount, know oratory, know how to communicate with different types of audience, be familiar with the literary word, psychologically be ready for unforeseen, stressful situations, possess knowledge on a certain subject, for example: economics, finance, politics, education, healthcare, culture, sports, etc. For example, "Summer School on financial journalism" works since August 2016. It was organized by the Unified Accumulative Pension Fund to help journalists to write on financial and economic topics and understand this field, the mechanisms of the pension system, and be competent in this sphere. In July 2018, the Summer School’s theme was dedicated to the 20th anniversary of the funded pension system of Kazakhstan for media representatives, bloggers and students of journalism departments.

The phenomenon of the universal journalist was described by David Randall. The combination of roles is called "broad specialization." Let’s give an example from a meeting of students at the faculty of journalism of the Al-Farabi Kazakh National University with Valery Kartun - the leading documentary filmmaker, director, producer, art historian and teacher. V. Kartun shared a story about art journalism, environmental journalism and showed his documentary film “Water area of common interests”, where he was a scriptwriter and producer. And what is interesting, the cameraman of this film was from Ust-Kamenogorsk, the announcer, the presenter from Tashkent, but the screenwriter and the producer from Almaty. The main work was carried out through the Internet, and the film was created thanks to new information technologies, which connected creative people from different cities and countries. To the students' question, “Where does V. Kartun position himself more?”, the guest replied that at the present time in a multimedia period, a journalist should be able to write, shoot, edit, promote and advertise his work, therefore he perfectly knows the specific of many creative professions, which are combined by the modern convergent journalist in the digital age.

There are various directions of activity in art, in music, painting, as for journalism there are different directions exist, it all depends on the goals and objectives that it pursues, to which it focuses its activity, the specifics of the work, for example: news journalism, authoring, personalized journalism, convergent journalism, network journalism, citizen journalism, service journalism. From the development of these areas in journalism, communicators themselves receive a certain specialization, that opens new names of journalists: multimedia journalists, mobile, backpack journalists, Web-reporter, Web-editor. The web editor plans, edits and formats articles, controls all materials for the network, internet versions, manages correspondents, journalists who create content for the site, portal. Mobile journalists prepare non-editorial materials using smartphones, audio, video equipment, and cameras. Backpack journalists have absorbed the skills of several professions: a video operator, director, sound operator. They shoot video on a digital camera, prepare photo materials, write articles, work with a voice recorder, laptop, mobile phone, transfer materials via satellite. A multimedia journalist prepares texts in different media formats, a multimedia editor and producer is engaged in preparing audiovisual material for the site, portal.

In connection with these trends, requirements for contemporary journalists have increased. They should create content for different media, be able to write texts competently, interesting express their thoughts, be able to argue, persuade, communicate with any audience, establish contact with future “heroes” of articles and programs, be able to prepare materials for different media platforms, know modern digital technology in order to mount audio and video materials, not only cover various topics, but also know well a certain field of activity, certain problems, for example, economics, politics, finance, culture, health care, sports t, science, and others.

Summarizing the systems of training modern journalists, Professor of Kazan (Volga Region) Federal University Yu.V. Andreeva comes to the following conclusions:

1. In the context of globalization and close interaction of civilizations, in order to preserve professional identity, journalists and public institutions need to develop a new understanding of the mission of their profession, which will affect the adjustment of goals, values, norms of professional behavior and ethical standards. This will create the foundation for the development of a new professional culture of journalists.

2. For effective interaction of international communications it is necessary, summing up the rich experience of professional training of journalists in different countries, develop a single international standard of professional culture and, accordingly, a single educational standard.

3. Training of journalists can be based on proven paradigms: knowledge of the centrist, competence, humanism in the conditions of their complementarities with the use of elements of the culturological approach.

4. International political institutions should purposefully support the independence of the media and the social content of the profession: media commercialization should not destroy the humanistic ideals of journalism in a democratic society [9].
V. CONCLUSION AND RESULTS

Currently, the competition between traditional and new media, network media communities has intensified. Increasingly, print and electronic media use digital technologies of new media and social networks themselves in their work. A new feature of the media is becoming more and more apparent - as a form of community organization evidenced by social networks, WhatsApp, there has been a turn towards digital creativity in the media.

The digital media environment creates some conditions for meaningful transformations of forms and ways of realizing authorship. There is a need to study the nature of changes in journalistic activities. The structure of media consumption has changed, and journalistic content has been transformed on the Internet and mobile environment.

Today immersive journalism appears. It is a new field for experiments on user involvement in various Web-projects. Mobile Internet gave an impetus to interactive forms, such as: interactive special projects, interactive infographics, interactive video, etc.

The convergent practices implementation in the editors work totally changed the information product produced by journalists. According to the content analysis of materials on the online media sites (newspapers, magazines, news agencies, online publications), 96% of the texts contain multimedia elements, but the level of real “convergence” of the mass media is low.

Multimedia, convergence and digitalization (transition to a digital standard) - the main trends of mass communication are firmly established in the practical activities of the media.

The world is in the process of transformation of the communicative space in the digital age, and the influence of them on the basic skills and personal qualities of people takes place. Development of electronic media is carried out in the era of the global digital revolution. Modern advances in the field of digital broadcasting change the modern journalism, which is becoming digital and multimedia.

The information age has changed the professional journalistic environment, where important factors of development such as intellectual, creative abilities, creative approach and skills, possession of new digital technologies are very important.

The peculiarity of journalistic activity lies in the personal approach of the communicator to the reality. The modern information environment makes new demands on the preparation of multimedia journalists, which correspond to the goals and objectives of modern journalism.

As reported by experts, convergence as a concept begins to dominate in the media management, including a content production. Significantly affecting the collection, creation and distribution of information product, convergence is not only radically alter the approaches to the management of information, fundamentally reconstructing the organizational structure of the media, but also creates a new model of journalism. Based on the approach presented above the new requirements in preparing multimedia journalists are created.

Communication media offer a variety of interactive relations of the user and producer and distributor of content. In recent years, the work of journalists became operational and mobile. The reader, listener and viewer can ask any question to the content creator, journalist and moderator by sending them a message by email, mobile phone and via the Internet. This feedback became more efficient, more interactive due to the introduction and rapid development of new information technologies that facilitated the journalists’ work, but brought them new technical and multimedia requirements, new approaches to the creative process, new forms of information management, communication management process. This has required a new level of training multimedia journalists in all countries.

This research concerns that the digital age has fundamentally changed broadcasting environment, blurring the lines between types of media, print and electronic communications, however new model of multimedia journalism is formed and begins to work in the educational system that allows to prepare multimedia experts, journalists converged for the modern media market at the journalism faculty of Al-Farabi KazNU.

In conclusion we can identify that further study of preparing multimedia universal media people will be still necessary to be verified. The reforming countries can be successful while maintaining the identity in the context of globalization, with the active development of multimedia journalism.

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REFERENCES

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