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JOURNALISM EDUCATION IN THE ERA OF SOCIAL NETWORKS AND ARTIFICIAL INTELLIGENCE: DIGITAL TECHNOLOGIES AND ETHICAL VALUES

Proceedings of international online round table
15 October 2021

Edited by
L. Shesterkina, A. Krasavina

SUSU Publishing Center
Chelyabinsk
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Annotation. The proceedings include abstracts of keynote speeches and presentations of the participants of the international online roundtable, which the World Journalism Education Council (WJEC), UNESCO and European Journalism Training Association (EJTA) held at South Ural State University (Russia).

The authors focus on the changing functions of journalism and journalism education in the era of social networks and artificial intelligence, the new dynamics of journalism education, the professional and ethical values of the journalism community, digital technologies in the modern educational environment and other pressing issues. The proceedings allow to identify new perspectives in the process of training media professionals of the 21st century and are aimed at expanding partnerships and cooperation between journalism teachers around the world.

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Foreword

International online round table “Journalism education in the era of social networks and artificial intelligence: digital technologies and ethical values, which was held by the World Journalism Education Council (WJEC), UNESCO and European Journalism Training Association (EJTA) at South Ural State University (Russia) brought together representatives of the leading Journalism schools of Russia, France, the Netherlands, Belgium, Switzerland, Macedonia, Albania, Romania, Belarus, Ukraine, Kazakhstan and other countries. The round table has become part of the UNESCO International Program “Journalism Education for the 21st Century” aimed at developing communication to strengthen global journalism education. In the new digital media space, where digital technologies are driving the transition from media-specific journalism to networked model Journalism, and where social media is effectively replacing Journalism in the realm of fast news, Journalism education is changing as well.

Artificial intelligence enhances this trend, since it is able to be a participant in both information and educational processes. We must assume that we are only at the first stage of these developments. At the same time, there are concerns about whether there will be enough room in Journalism for human emotional participation. The main question is how Journalism education should respond to the digital transformation of life and how we can prepare our students for a world that will be different from the one we are used to. These and other issues were at the center of the reports, speeches and discussions of the round table on modern functions of Journalism, issues of professional ethics, training a new generation of journalists in the era of social networks and artificial intelligence.

1. The changing function of journalism and journalism education in the age of social media

Nico Drok

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Counsellor of the European Journalism Training Association
Vice-Chair of the World Journalism Education Council**

New platforms, new producers, new markets, new forms and content are creating a different environment for journalism. An important question is how professional journalism should adapt to a rapidly changing news ecology in order to survive. It is impossible to predict the future, but it is our duty as educators to reflect on different possible scenarios and their implications. Will it be sufficient to teach students how to master the new technologies? Or will it be necessary to redefine the function and purpose of professional journalism?

A first step is to look at some of the most important problems that professional journalism faces, and to what we can learn from social media to tackle these problems.

With regard to the *public*, a major problem is Representation. A growing number of people do not recognize themselves in the news. With regard to the *process*, a major issue is Reliability. In many countries people experience a distance to news media and lose trust in the authority of professional journalists.

With regard to the *product*, a major problem is Relevance. Many people find that the issues they really care about are poorly covered by the news media. Next to that, most of the news is seen as negative, depressing, and simply reproducing problems – instead of trying to help reducing them. With regard to the *platform*, a major problem is Reach. Young people, people from lower income classes, and people from minority groups are among those that are largely out of reach.

Social media give room to unheard voices within the public, social media don't keep the public at a distance as they work on the basis of participation, social media connect to what is relevant for various subcultures. Next to that, the reach of social media is further stimulated by the fact that they are free, they are fast, and they are fun. At the same time there are downsides to social media: people with the loudest voice can dominate the communication, social media can open the gates for harassment, there is a risk of getting only informed about your own subculture and of a loss of privacy.

It is important to learn from the success of social media, while at the same time avoid the downsides. Journalism educators can already start by putting more emphasis on connection, cooperation, context and cross-media in their curricula.

2. New dynamics of journalism education: from classical literature to AR and VR?

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**Academician of the Russian Academy of Education,
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Lomonosov Moscow State University**

In the wake of the *COVID-19* pandemic declared by the World Health Organization, higher educational institutions had to rapidly switch to online teaching. The impact pandemic made on the educational process will long be studied by the academic community, including journalism scholars.

However, such a hasty transition from the usual face-to-face education to distance learning certainly revealed multiple problems for the academic community worldwide, and journalism education was no exception.

Fundamental disciplines, which traditionally took the form of lecture courses (Russian Literature, Foreign Literature, Theory of Literature, Economics, Social Sciences, Political Sciences), were perfectly integrated in the online programs, whereas practice-oriented disciplines faced difficulties in being adapted to the e-learning format. It is essential to understand how to teach those disciplines, how to provide access to professional equipment, which is needed for “field work”, and which would facilitate the production of news reports and work in digital laboratories. The latter seems to be the most complex problem, which calls for new methodological solutions, such as, perhaps, promotion of interactive, visual and entertaining elements of digital communication.

Immersive technologies (AR and VR) are known to be educationally effective in training natural sciences professionals – engineers, pilots, health professionals, etc. Apparently, the use of virtual reality and augmented reality technologies in the online training of journalists and media specialists could significantly enhance the effectiveness of student-teacher and student-student interaction, the latter being important for project work. The most advanced trends of recent years in global higher education confirm the demand for new media and communication technologies in the learning environment, since they are in line with the current paradigm of higher school development: coordination of multidimensional, rather than unidirectional, communication between the major subjects of education.

Due to technological progress, media and communication technologies of virtual and augmented reality are constantly evolving, fostering the productive development of new interactive formats of education aimed at “immersing” the student into the learning process. However, such technologies require certain

training of the teaching staff as well as adjustments of educational program and procurement of equipment.

Apparently, there is a need for a comprehensive review of the practical journalism and media communication training, which for years was being developed for job-oriented disciplines, taught in class, and thus is not suitable for online teaching.

Perhaps, the very structure of education should be revised as well, so that it would become more hybrid and consistent with both online and offline teaching. This will certainly imply elaboration of new types of educational standards, introduction of new professional competencies, development of new manuals, and establishment of expert and analytical groups for devising new educational strategies.

3. EUFactcheck: the importance of fact checking and verification in the era of social media and artificial intelligence

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Master in Germanic languages**

Today there are many challenges for journalism and journalism teaching, amongst which 1) the responses to the spread of ‘false news’ 2) the role of social media platforms and media 3) and information literacy are of utter importance. These challenges are also constantly raised by UNESCO and in the iconic ‘The Elements of Journalism’ Kovach and Rosenstiel have stated years ago that verification will always be the essence of journalism.

EUfactcheck, the project that is presented today, tries to give an answer to important challenges by teaching the students of journalism the competences needed to make sure quality journalism survives. The project stresses the importance of verification and fact checking in the era of social media and artificial intelligence.

Before we can study the project in detail, let’s first stress the difference between unintentional misinformation and intentional disinformation. Disinformation is intentionally manipulated and draws disproportionate attention on social networks. National governments and the EU asked the big media platforms to take their responsibility. Studies show this is absolutely not enough, though. Misinformation is unintentional false news in mainstream and

social media, spread because of lack of analytic verification to check context or source. Students of Journalism should be taught better how to avoid this.

At the same time, it is clear that even though artificial intelligence can help fact checkers to debunk disinformation with many AI driven tools, it can never be seen as a complete way of replacing human journalists. There will always be an important role for quality media practitioners because journalists are needed to understand and illustrate the context of facts, to exercise judgement and to synthesise evidence.

That's why a group of Journalism schools within the European Journalism Training Association (EJTA, www.ejta.eu) decided to cooperate and develop a curriculum unit on fact checking in their programmes in order to tackle the false news which spreads exponentially in the era of social media and AI. These schools collaborate in an international way in EUfactcheck, the didactic project of EJTA in which they teach their students analytic verification and professional fact checking.

EUfactcheck (www.eufactcheck.eu) is a unique project in size and in quality, promoting unity in diversity (more than 20 different Journalism schools on one platform, using one methodology and one language). The project started in 2015, had its first milestone in the run to the European Parliamentary Elections in 2019 and is now starting its sixth publication season. The funding is small, while the commitment is high.

We use a common methodology and educational tool: the EUfactcheck flowchart with which we oblige the students to ask themselves questions step by step: 1) about the claim, 2) about the author and source and 3) about the confirmation of the original source and a second expert. All information and formats are to be found in the manual which is downloadable at the website, as is also the case with the flowchart. Transparency in this project is synonym with providing open-source didactic material.

The impact of the project is shown by the ever-rising number of unique visitors, the social media responses, the media coverage, the demand for master classes, the many cooperations with other associations and the mentioning in important documents of the EC and the CoE.

We can look back at great achievements and publications and many inspiring cooperations amongst the participants and we're sure we're raising the students' democratic, critical and analytical awareness and insight in EU policies.

In the future we hope to find structural funding, to develop new formats, to go beyond first-generation fact checking and to attract new participants.

4. Student-journalist and social networks: exploratory study

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Social networks are quite firmly established in life of a modern person. Every day millions of people in the world communicate, arrange meetings, search for information in social networks. One of the most active users of social networks are students, including those studying the profession of a journalist. Almost every student is registered in one or more popular social networks. However, the influence of Internet communities, social networks on the worldview, social activity and even life strategies of students is ambiguous. IMSHS of SUSU conducted a study on the role of social networks in the lives of students, who choose the profession of a journalist.

Social networks have led to a profound transformation of modern communication at many levels, including in the field of journalism as part of the mass information process. Serious changes have also taken place in the field of journalism education. Social networks have become a data search tool for Journalism students a source of information and a channel for promoting materials and a media platform for acquiring many universal professional competencies.

Social networks do not replace traditional methods of teaching journalism, but, of course, they make serious changes in the educational process of training a future journalist. The conducted research revealed the current trend: on the one hand, journalism students understand that social networks are a valuable source of information, but they are also aware of the fact that this source significantly affects the organization of their lives and this circumstance forms new tasks of journalistic education in the field of mastering digital technologies by students and preserving the values of the profession of a journalist.

5. Teaching professional values in the era of social networks and artificial intelligence

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Across many contexts, journalism has been said to be changing – during the past years, not the least because of the latest development of social networking platforms and artificial intelligence (AI). In this presentation, it is argued that the changes that journalism is observed to be undergoing, are more of a technological, economic, and sociocultural character, while the values guiding journalistic work autonomy are distinctive of journalism. Journalism has 4 core values: timeliness, fact-basing, independency, representativeness. These more or less remain to the core of the practice – otherwise, journalism ceases to be journalism and becomes another form of communication.

Leaning upon Raymond Williams' definition from cultural studies, journalism is primarily envisioned as an ideology of fact-basedness and timeliness. It is discussed why professional values, engrained in this ideology, taught in journalism education, still matter and should be kept in the foreground when teaching topics such as platform economy and AI technologies. Exploring the ontologies and epistemologies of platformization and AI development from a journalistic perspective, a value-based inquiry into how journalism education could approach these phenomena is presented, drawing on its core values.

Artificial Intelligence could be an object of coverage as well as a tool in journalistic work (for example, robots write simple reports). An important issue is when and how to use robot journalism and automated content production, as they could be harmful for the core values of Journalism. The important task for Journalism education is to learn students to apply core values while working with AI.

The conclusion: social platforms and artificial intelligence are potential threats for Journalism, so we need to take core values seriously in Journalism education. This is the pedagogical challenge and we need to start experimenting to find the answers.

6. The Impact of Artificial Intelligence on Journalism Education in a Digital Society

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Today, AI is used at all stages of media content production. However, educators do not have the necessary competencies to explain these processes in detail. AI also brings certain challenges for the industry and education. Researchers write about threats to the sustainable development of a society that depends on platforms and technologies, about ethical problems in the relationship between a machine and a person, and about the singularity.

Until 2024, it is planned to spend 24.6 billion rubles from the budget for the development of AI in Russia. Some of this money will go towards the creation of educational programs in AI. This year, on behalf of the President, changes were made to five thousand programs related to the use of artificial intelligence technologies. Any university graduate should have basic knowledge on this topic.

As of today, there is no final decision, but in general there is an understanding of how this implementation can be carried out. One of the options is corporate programs in conjunction with large corporations such as Yandex, VK or Sberbank, which could provide teaching of technical disciplines at their own base, while a higher school would be engaged in general training in the field of critical thinking and media literacy of specialists in artificial intelligence. It is quite clear that without the help of the industry, higher education will not be able to cope with this task. The simplest path the university is following today is the introduction of external online courses into the curriculum. The ministry's initiatives seem a little belated, but nevertheless necessary. But the labor market is responding to the need for specialists of a new profile by creating its own schools and courses for training employees, while universities are solving bureaucratic problems.

As a practical guide, I offer a list of competencies in demand. Knowledge and competences in AI required today:

- understanding how the architecture of neural networks works,
- knowledge of AI applications in the professional field,
- basic programming skills

– ability to promote content, taking into account the specifics of algorithms.

Knowledge and competences in AI required tomorrow:

- the ability to train a neural network
- skills in drafting technical specifications for neural network developers
- advanced message targeting skills
- the ability to determine the need to use AI in a specific professional action.

7. Digital Storytelling

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Training of future journalists in accordance with changes to the ICT system and needs of the media industry is one of highly debated topics within today's Russian journalistic and academic communities. Members of the scientific-and-pedagogical community together with working journalists almost unanimously highlight the efficiency of combining scholarly and practice-oriented approaches to teaching media literacy. Therefore, the positive tendency of universities being initiators and centers of media production is particularly noteworthy in this regard. In many higher education establishments including, Lobachevsky University, there are training-and-production facilities along with press centers that engage journalism students in the process of content creation and information support for intramural events.

Storytelling is an important direction for the development of modern media. Added to this, practicing specialists underline the necessity of visualization in the process of creating a narrative as well as importance of

mastering the toolkit of digital technologies and infographics, and these are essential professional skills for a journalist /an expert in mass communication. Demand in practical skills of mastered storytelling techniques was also acknowledged at the public speaking event «Promotion on Instagram» organized by The Russian Union of Journalists that took place online (the broadcast was aired on September 21st, 2020) where in the workshop held by a speaker Svetlana Lobanova titled «Text. You. And your story. What is storytelling on Instagram and new sincerity» was part of the meeting agenda.

Lobachevsky University follows trends of the media development by integrating them into the academic process: the disciplines such as «Digital communications», «Digital storytelling», «Information technologies and databases in modern media» are all included in the training curriculum for future journalists. That allows students acquire important professional expertise true to the educational standard of bachelor training as part of the «Journalism» course that is «the ability to grab and hold audience’s attention utilizing techniques of storytelling, methods of structuring material and using header complex, blending of textual and multimedia elements in a publication». In order to build practical skills (as part of the expertise acquisition) students are involved in creating original content.

The most notable example here is the project «#staywithIPJ» (2020) where in professors act as featured characters and co-authors of narratives created by their students. That has allowed to show case substantial and technological specifics of storytelling, to blend processes of education and university promotion in educational and information spaces.

Thus, the combination of the traditions of classical university education and the practical experience is one of the main aspects of training students in Digital Storytelling at Lobachevsky University.

8. Immersive journalism

Yael de Haan

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Immersive journalism has been one of the most significant genre innovations in journalism during recent years. It is assumed to create feelings of presence and empathy among audiences using 360-degrees videos and virtual reality (VR). Immersive stories consist of three different key elements—inclusion, narrative, and

interaction --which may have distinct effects on feelings of presence and, in turn, empathy.

In this presentation findings of a study on immersive journalism are presented. First is shown what type of immersive journalistic production are made and to what extent element of immersiveness can be found. Secondly, the challenges journalists face in producing immersive journalism are explained. Lastly, findings on which effects immersive journalism has on the public are presented.

The results of this project on immersive journalism are then translated in concrete suggestions for implementing an immersive journalism course in j-schools, based on learnings from two modules. Goal of the course was to produce a journalistic production while creating emotional engagement and empathy with the user. It was based on collaboration between journalism students and media design students. Teachers met difficulties during this interdisciplinary cooperation: difficulties of understanding as they were speaking the same words, but with the different meanings. Collaboration appeared to be not very easy and it requires building a common culture in order to be able to create successful productions.

Immersive journalism projects very often focus on technology. However important and innovative immersive journalism is, an additional way to present certain information what really matters is to engage the public through storytelling and interaction, and to be able to cooperate with other disciplines.

9. Digital inequalities and conflicts in the new multiplatform space¹

**Anna Gladkova,
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In this presentation, we discuss inequalities that emerged in parallel with, and as a result of the rise of digital media across the world and the ongoing digitalization process. The analysis of theoretical approaches to the digital divide in both global and national perspectives (Vartanova, 2018; Ragnedda&Mutsvairo, 2019) proves that digital inequality is a multi-faceted issue that has been developing in the course of time and is noticeably affected by the changing reality, including recent challenges brought up by the pandemic. Another important aspect to consider here are different types of conflicts and

¹This research has been supported by the Interdisciplinary Scientific and Educational School of Moscow University Preservation of the World Cultural and Historical Heritage'

disparities that can affect digital inclusion and as a result social inclusion of various population groups across the world too.

In this talk, we focus on theoretical and empirical dimensions of the digital inequality analyzing the issue of the digital divide as both theoretical and practical phenomenon. We argue that digital divide today should be approached as a complex problem, embracing many different forms, levels, aspects and manifestations, and certainly not being limited to binary divisions based just on users' access to the Internet and computing technologies, previously referred to as 'have's' and 'have not's'. In this vein, we discuss digital inequalities in regard to access, skills, and benefits from using ICTs, i.e., three levels of the digital divide that have been previously identified by scholars and widely discussed in recent years (van Dijk, 2020).

Using theoretical framework of digital divide (Ragnedda, 2017), digital inclusion (Carmi, & Yates, 2020), digital capital (Vartanova, & Gladkova, 2021), vulnerability theory (Tsatsou, 2021) and conflict studies (Webel, & Galtung, 2007), we argue that regardless of national specifics and current peculiarities of communication systems, there are challenges most societies across the world are facing nowadays under ongoing digitalization process. The primary aim of this talk therefore is to discuss the challenges brought by digitalization (digital exclusion, new forms and levels of the digital divide, new professional and personal demands in terms of digital engagement, etc.), and how multicultural discourses are developing in this new context, keeping in mind traditional and newly emerged conflicts and disparities on different societal levels. Lastly, we discuss possible ways to overcome and to prevent the digital divides, with a focus on media policy and digital engagement through media literacy playing a crucial role in this process.

10. AI solutions in Russian media: the case study of the “early adopters”

Maria Lukina

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Associate Professor of the Department of New Media
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In contrast to other Internet-related and tech-savvy businesses Russian news media industry does not show a lot of success stories. But still there are a

number of representative cases, which give us a reason to discuss potentially large field to expand.

The report based on longitudinal observation, studies of legislation documents and in-depths interviews with Russian media think-tank, experts and media executives represents the country case and its context where artificial intelligence technologies in different fields are developing rapidly and is actively supported and encouraged by the government.

The report outlines the picture of the main driving forces and constraints for AI penetration in Russian media industry and journalism practices. Along with description of the major actors of media business, which explore automated text generation and data analysis, the overview covers other innovative tools for newsrooms and journalistic routines.

The report focuses not only on case studies of the “early adopters” – actors from news media companies such as *Interfax*, *RBC*, *RIA Novosti* but also on Russian technologically diversified multifunctional giants as *SBER*, *Yandex*, *Mail.Ru Group*, as well as on the social media such as *Vkontakte* representing actively developing digital hubs which actively implement algorithmic solutions in their practices.

The study is supplemented by the overview of the state players – governmental structures, which nowadays actively stimulate and support AI initiatives and start-ups.

11. Virtual Reality Journalism: Changing Professional Competencies

Oleg Samartsev

**Doctor of Philology, Associate Professor,
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Ulyanovsk State University**

Immersive journalism (immersive journalism that uses virtual, augmented and mixed reality technologies to create projects) has been developing most dynamically in the world in the last decade. The emergence of VR devices in the low-price group - from Google's Cardboard, Samsung's Gear VR to devices based on Android mobile platforms such as Oculus Quest and Oculus Quest 2 - has made VR a publicly available product. Facebook and YouTube are optionally introducing algorithms for creating and distributing VR content, and mobile equipment manufacturers Apple and Samsung are integrating technological means for creating and playing back VR: 3D photos, 360° videos, and augmented reality panoramas into their devices. Specialized photo-video action-cameras with 3D and 360° photo-video capabilities are becoming available.

A significant role is played by the development of the game industry in the sphere of VR, the availability of VR content development platforms and SDKs - Unity, Unreal Engine, etc. - for indie developers and professional VR studios. Proportionately growing and active audience of consumers of VR, AR and MR content. Thus, immersive journalism is becoming more and more popular and in demand especially in the situation of the COVID-19 pandemic and requires journalists to acquire new competencies:

1. Technological competencies: knowledge of technological foundations of VR, knowledge of theory and methodology of VR product manufacturing; skills of working with methods of VR product creation and distribution; possession of specialized software, platforms and services to create VR.

2. Creative competences: knowledge of visual, expressive and immersive means of VR technologies, understanding of the peculiarities of perception of interactive and immersive product, possession of the basics of VR directing and compositing, understanding of the non-linear structure of the work in this format, the ability to use interactive ways of building VR works, 3D modeling skills, mastering the technology of motion capture, facial animation, tracking, etc. Skills to use interactivity and branching story schemes in the script.

3. IT competencies: knowledge of programming languages or visual programming (work with Blueprint), knowledge of artificial intelligence programming principles, possession of skills in building non-linear algorithms, block diagrams using NDK and SDK, neural networks and client-server technologies.

12. Traditions and innovations in Journalism education

Vladimir Tulupov

**Doctor of Philology, Professor,
Head of the Department of Advertising and Design,
Dean of the Faculty of Journalism
of Voronezh State University (Voronezh, Russia)**

If we sum up the threats that the higher journalism education is facing, this list will be topped by the ideological threat which lies in the fact that the public consciousness is being inoculated with the deconstructive idea that the journalism has outlived itself. The advocacy of the inferior paradigm of traditional journalism education is also increasing: the emphasis is artificially placed on a purely technological and instrumental approach to the detriment of the combination of academic fundamental and applied media professional training. The economic and financial problem is evident: the higher education is

being aggressively commercialized, as a result the overall competence level decreases, since in order to preserve the clientele of students one must relax the requirements applied to them. The organizational and legal fallacies include, first and foremost, the increasing bureaucratization of higher education.

Problems in journalism education do exist, and to overcome them it is important to pinpoint their origins (lack of the unified approach to journalism training strategy; large-scale training of media professionals; budget funding reductions and inability to renew infrastructure on timely basis; low competence level of prospective students).

Media economics and multimedia formats courses have been taught at departments of journalism for more than two decades. In this regard it is necessary not to let technical skills overshadow the ability to write adequately and concisely, as well as literary editing and creative thinking skills.

Students at modern departments of journalism learn to use social networks in their future work: they get acquainted with SMM (Social Media Marketing) – marketing in social networks, information products promotion through various social platforms, in other words media market segmentation and positioning; with SEO specifics (search engine optimization) - a set of measures to increase Internet resources' search engines visibility in the results of the query. Students get acquainted with the work of a new editorial department - the SMM department and new career paths such as SMM manager (SMM editor), SMO specialist (Social media optimization), SMC manager (Social Media Curator).

13. Big data journalism - university experience in training data journalists

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In Russian Federation, almost 200 universities are training bachelors in the field of Journalism. Most universities have master's degrees in journalism. We turned to the curricula of Russian universities to analyze how data journalism is taught in Russia.

Data journalism is one of the relatively young areas of journalism, which is based on the use of data in the preparation of journalistic material. The development of this direction is due to the increase in the amount of available

data (including open data), the emergence of digital methods of collection and processing tools.

Journalistic education in Russia is based on the state standard of the Federal State Educational Standard (3++). University curricula are created considering the requirements of the standard. The Federal State Educational Standard does not directly oblige universities to include disciplines related to data journalism in the curriculum. There is not a single competence in the FGOS that is clearly related to the work of a data journalist. The integration of special disciplines in data journalism or the opening of bachelor's and master's degree courses belongs to the prerogative of universities. As a rule, this is due to the availability of the necessary human and technical resources.

We analyzed university offers for applicants using the aggregator "Enroll Online". According to the service, 36 Russian universities train data journalists in bachelor's degree. According to our observations, their number is slightly higher, but not by much. Analysis of university websites has shown that graduating departments rarely position the Journalism direction for applicants as an opportunity to become a data journalist. There is not a single bachelor's degree profile in Russia that is directly related to data journalism.

An analysis of the curricula of universities selected at the first stage of the study showed that disciplines directly related to data journalism are extremely rare. Only some universities have introduced special disciplines, for example: "Introduction to Data Journalism" (KFU), "Data Visualization and Infographics" (TSU), "iNfographics and Web Design" (Financial University, Moscow), "Infographics Workshop" (PSU), "Big Data in Journalism" (Humanities University, Yekaterinburg), "iNfographics" (UrFU), "Computer Graphics and Data Visualization" (RANEPA). In the first four universities, disciplines are included in the mandatory part of the curriculum, in the other three, these disciplines are optional.

The only master's degree in training data journalists in Russia has been opened at the HSE (Moscow) - "Data Journalism". It opened in September 2016 at the Faculty of Communications, Media and Design.

It seems that several factors influence the opening of training areas for data journalists and the introduction of special disciplines into the curriculum:

1. Lack of trained teachers or experts in the field of data journalism capable of teaching
2. Low demand for data journalists in the regional market
3. Lack of a request for a profession on the part of applicants
4. Poor development of data journalism in Russia

14. Professional and ethical values of the journalistic community in the era of social networks and artificial intelligence

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Technological transformations of modern times have radically changed the conditions for the transformation of information and communication products into mass information. At the same time, new media, as well as traditional media, found themselves in a competitive environment. Almost anyone now has the opportunity to create and distribute texts, as well as monetize their activities, and this has led to a modification of the traditional models of organizing the advertising business. At the same time, the expansion of the flows of low-quality and unverified information actualizes the problem of finding ways to prevent emerging negative trends. And the fight against fakes, according to experts, has generally "turned into a matter of national importance today".

The introduction of artificial intelligence technologies (a set of methods and models that can be used to obtain and systematize the volumes of "big data", as well as to form evidence-based conclusions) into everyday practice, in our opinion, contributes today to the expansion of the dialogical capabilities of the mass media, as well as the implementation of their humanistic activities. At the same time, in order to resist the dominance of provocative content and manipulative or commercial intentions, a journalist must have technological knowledge and skills. But almost any media text in a specific communicative situation reflects the value orientations of the subject of information activity – the orientations that exist in the ordinary language consciousness. Therefore, the professional and moral values of the entire journalistic community play an important role.

The contradiction that exists today between the purpose of journalism and the real activity of the mass media is, according to researchers, a key one for the profession, threatening even its existence. This raises the question of the need to find ways to solve this problem as a priority scientific and practical task. The declared commitment of journalists to the norms of professional ethics and their real compliance is another contradiction of modern times. The values fixed in the code of ethics are either openly violated, or are replaced by informally

expressed norms or rules of editorial policy. This causes irritation among representatives of various social institutions, and the high level of trust of the mass audience is increasingly correlated with the names of popular bloggers or eyewitnesses of events.

The research was carried out with the support of the Russian National Science Foundation Grant No. 19-18-00264 within the framework of the scientific project "Digitalization of communicative and cultural memory and problems of its intergenerational translation".

15. Journalism education without social networks education: is it possible?

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Such a statement of the question in the context of the global digitalization of communication processes may seem unnecessarily polemical. According to the latest VTsIOM polls, 71, 1% of Russians use the Internet. However, the survey does not answer the question of how many of these users use network resources exclusively for educational purposes.

The total digital dependence of the entire system of relations in modern society sooner or later had to affect the system of education in higher education and, above all, in the field of journalism education. That's what we've been seeing in the last decade. The technological transition to digital in the collection, processing, production and dissemination of information has already become a reality. This provokes to a certain extent a significant correction of training programs in the direction of greater pragmatism with an increase in the share of competencies and knowledge focused on the network space.

At the same time, there is a blurring (if not destruction) of the system of obtaining humanitarian knowledge and theoretical ideas about how the world of information around us works. Regular communication in an academically arranged process with students revealed one disturbing trend. When any discussion situation arises involving a question-answer system, students, instead of trying to think independently and search for intellectual arguments, turn directly to their own gadgets.

Such a habit cannot but foster educational dependency, in which the opportunity and need to think is replaced by the search for ready-made answers and recommendations coming from numerous and unreliable network resources. There is a discrediting of the anthropomorphic principle on which higher university education was built before, for centuries, in other words, when the transfer of knowledge took place from one person to another.

It is also worth paying attention to the fact that the desire to search, and not to think, forms in the mind of the student a mental temptation associated with a large variability of choice and response, and scientific hypothesis, and practical recommendations in a specific situation of any information activity. That is, the future journalist will make an operational decision based not on his own skills, competencies and knowledge, but on the basis of the information and recommendations that he received from totally anonymous and unidentifiable network resources. Which forms in the professional consciousness a vast field of variability, rather than a clear system of knowledge, including, first of all, issues of responsibility (legal and moral) in terms of the dissemination of unreliable facts. Such a problematic situation partly explains the widespread spread of such a negative phenomenon as fakes in the media environment. And then - the assertion of the paradigm of "post-truth" as a result of professional incompetence.

We see a way out of the situation of digital dependence of journalistic education in the increase of programs and forms of education related to the teacher's personality factor, as well as with the introduction of all possible contact forms aimed at expanding humanitarian knowledge.

16. Journalism education in the era of social networks and artificial intelligence: digital technologies and ethical values

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The emergence of new technologies in media communications is a constant process. This relates not only to the development of scientific and technological progress, information and communication technologies, but also to the fact that at different stages of socio-economic development of society, the mass media play different roles and functions. Today, the very profession of a

journalist has changed. Gutenberg's printing press, radio signals and a television tube, a computer and the Internet are technological innovations that have changed ideas about traditional journalism and the role of mass communication media in the life of society and every person. The rapid development of information and communication technologies has led to significant transformations of functional models, the structure of the mass media, the nature of their interaction with various spheres of society.

All this requires serious reflection. We see that the audience has also changed its attitude to media communications. The popularity of some is growing, while others are experiencing a crisis of trust and demand, and others are disappearing from the field of view of the mass audience, experiencing problems of survival. The widespread influence of Internet communications actualizes the issues of information security of the country, preservation of spiritual values, national culture and identity. Equally important is the issue of training universal specialists in the field of media, combining creative, technical and managerial components in equal proportions. There is a growing need for graduates with skills to work in the modern media industry. The relevance of the problem "journalistic education in the era of social networks and artificial intelligence: digital technologies and moral values" is undoubtedly in the context of comparative characteristics and studying the features of the manifestation of new trends in the media of different countries, for example Kazakhstan and Russia, as well as countries of the West and East.

Media education is currently of great public interest all over the world, not only as a system of teaching professional activities, but also as a set of methodologies and technologies for solving educational tasks [Media education as a resource for professional orientation of children and youth [Text]: Methodological recommendations for the implementation of media education in educational organizations of the region / Author-comp. M.V. Kuzmina. - Kirov: IRO of the Kirov Region, 2020. - 55 p.]. For more than ten years in Kazakhstan, scientists have been talking about the need to introduce media education into the curricula of schools and universities. Experts also say that our people need mass media education and the development of media literacy. Since the 60s of the XX century, a specific direction "media education" has been formed in the pedagogical science of the leading countries of the world, designed to help schoolchildren and students better adapt to the world of media culture, master the language of mass media, be able to analyze media texts, etc. The Russian scientist A. Fedorov considers "media education and media literacy" in parallel, which indicates a specialized approach to the study of this phenomenon.

Kazakhstani professor L. S. Akhmetova notes that it is necessary to develop the ability of useful use of media resources. In this regard, there is a need to create standards of preschool, school and other education for the introduction of media literacy. Work in social networks should be present in pedagogical education. In Kazakhstan, the ideas of media literacy are promoted

by the "Internews" international organization, its representative office in our country works on several media support programs funded by the United States and the European Union. Within the framework of these programs, trainers focus the attention of university teachers and journalists on the discriminating consumption of information, a conscious attitude to content creation, the development of critical thinking among students and the media audience. The main goal and objective of the introduction of the "Media Literacy" discipline for future journalists and students of other educational programs is to instill the skills and abilities to create high-quality content, to be critical of information coming from various sources, including from social networks.

17. Using artificial intelligence in the media industry

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Artificial intelligence is a topic that is increasingly being raised in conversations about the prospects for completely different areas of the scientific and economic life of mankind. However, the emergence of algorithmic principles in the creation of a traditionally humanitarian product, in particular journalistic content, attracts special attention from both academic researchers and visionaries of the media industry, editors-in-chief and media managers.

Today, artificial intelligence (AI) increasingly penetrates into routine editorial practices - searching for information, writing news, and distributing it. Of course, such innovations also affect the structure of the editorial office, its staffing, the logistics of creating journalistic materials, the entrance requirements (competencies) for employees, the degree of interaction with the IT industry. Prospects of the increasing spread of AI systems to various editorial processes confront the professional community with the need to revise the traditional models of journalistic activity, optimize them as much as possible and comprehensively replace many of the journalist's work functions with algorithmic solutions.

Pilot steps in the robotization of the media industry were taken back in the 2010s. The first to use AI for content creation were large Western editorial offices - Associated Press, Reuters, Bloomberg, Los Angeles Times,

etc. Among the Russian leaders in this regard, one can single out Interfax, RBC, sports online edition Sports.ru, women's magazine Elle, RIA Novosti and others. Other Russian media companies (TASS, Komsomolskaya Pravda, local media) are also looking at the possibility of introducing algorithms into their editorial processes.

So far, the main topics for “robotic journalists” are “dry” ones: finance, weather, sports, crime chronicles, etc. AI is also used in the formation of news feeds, in web analytics, fact-checking, and content distribution.

The active use of AI in the media industry poses many new challenges to the professional community. For example, in matters of ethics, journalistic competencies, the limits of permissible robotization of certain types of content and editorial processes, the profitability of the media (the introduction of AI is not cheap), optimization of the staffing table, the reliability of information that algorithms refer to, economic and technical development (support) of the used AI - systems, legal responsibility, etc.

18. Videoblogging: tools for nurturing interest and capturing of an audience

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The highly competitive environment in the novel formats of audio-visual media makes pertinent the problem of drawing an audience’s attention to artisanal content. As a result, modern video bloggers are starting to explore various tools for generating viewer attention and retention at all levels of content creation.

At surface level, bloggers use tools of emotional manipulation such as the principle of exotics, provoking visceral outrage, breaking tempo-rhythm, appealing to the base personable human values and constructs.

To retain the audience’s attention, bloggers often use submodalities of visual and audio channels. Among these visual submodalities, there are switching associative and dissociative modes of shooting, flat and volumetric picture, static and dynamic shots, switching the plan scale, a focal object’s placement on screen, altering contrast, saturation, brightness, applying unorthodox approaches to titling. Among the audio submodalities, one can find

shifting volume, clarity, changing the number of channels, using unrelated or downright nonsensical sound samples, autotune, audio effects in general. Of course, these submodalities are utilized in traditional TV content as well. However, there they are not as prevalent or as over bearing as they often are online.

It is particularly noticeable in the utilization of graphics, titling, and sound design. The latter can be explained as an attempt by the bloggers to recapture the viewer's attention and reformat their viewing experience from a passive to an active one.

That being said, even the excessive use of submodalities is, on its own, not enough to generate stable viewer retention and stimulate the viewer to come back for more content. To capture an audience's attention on a deep, more permanent level, bloggers appeal to formats of video that can be considered traditional, to the classics. E.g., they try to actualize as many metaprograms as possible in every piece of content. Most often, those are appeals to such metaprograms as "people", "values", "process", "accomplishment".

Besides that, videobloggers enthusiastically employ archetypal tropes: "David and Goliath", "Cinderella", "Sleeping Beauty", "recontextualizing philosophical categories", "deception", "travel", "doom". Combining technological novelties, intense utilization of tools for capturing attention and appeals to our cultural programming in videos allows content creators to rekindle and maintain a stable interest in their product.

All of the above allows us to say that videoblogging formats can be effectively used in media educational practices as a visual tool for identifying media creation tools and dominant communication strategies. In the course of research and creation of videoblogs, students get the opportunity to understand the nature and degree of media impact and the essence of the media reality that is today formed by the virtual space. Our experience in creating videoblogs allows us to assert that as students apply the methods and techniques for retaining attention and the formation of interest in media content in their own work, their assessment of the means of influence becomes more critical, and the approach to their own professional activities acquires the qualities of media environmental friendliness - concern not only about a specific result, but also about global, not momentary consequences. In this sense, recourse to videoblogging practices and their critical assessment make it possible to form the quality, necessary for a journalist, - social responsibility.

19. Neuromarketing studies of media products

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The relevance of the research is primarily determined by the genuine interest of the modern media community in neuroresearch and the study of the human brain. One of the directions in such research is neuromarketing. The term was introduced by Professor E. Smids. As a modern scientific direction, it arose at the end of the XX century, when due to the scientific works of D. Kahneman, A. Tversky, the dominant of irrational human behavior was determined. Today neuromarketing represents a unique scientific interdisciplinary field that includes neuroscience, psychology, digital communications, and marketing. The area of application of neuromarketing technologies is vast - from examining the influence of mass media on audience behavior to monitoring reactions to any particular “product”. These include a media product, which comprises a variety of journalistic materials, as well as PR and advertising information. The peculiarity of the use of neuromarketing technologies is that they are based on a tool that allows you to observe the proper reactions of a person and his brain to external stimuli, which are media products unfiltered by consciousness. Modern media products exist in tough competitive conditions: noisy media environment, the Internet space.

The journalistic community actualizes the need to examine the methods of the most effective impact of this product on the target audience. In this regard, neuromarketing methods are being actively introduced into the communication system, which allows tracking the objective reaction of the respondent's brain to external stimuli. They make it possible to move away from the emotional-subjective assessment into a quantitative measurement of the perception of the target audience using specific equipment: eye-tracking, electroencephalograph. These neuromethods provide an opportunity for collective monitoring of respondents' emotional reactions. They possess a full-fledged set of tools in their

arsenal. Eye-tracking equipment allows you to track the number and duration of fixations on target objects, the trajectory of the gaze movement (saccades), providing statistics and its visualization in the final: heat maps, graphs of gaze fixations. The uniqueness of the application of methods for diagnosing a media product using EEG lies in the obtained indicators of brain reactions through indices of involvement in content, excitability, valence, etc. These results demonstrate particular effectiveness in integration with traditional research methods. Neuromarketing technologies have a wide range of opportunities for the activities of a journalist, examining the degree of effectiveness of the impact of media communications, individual journalistic materials on the audience. In this regard, educational electives on the use of neurotechnologies in the development of media products and further research of the degree of their impact on the target audience should be introduced into the curricula. This experience is already being implemented at the Department of Journalism, Advertising and Public Relations of SUSU.

20. Ethnic journalism facing challenges of the digital era

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When forming modern trends in the development of journalism in Russia, researchers do not sufficiently take into account the specifics and needs of ethnic media. This problem becomes especially urgent in the case of intensive digitalization of society and the media system in particular.

Realizing the interests of the small peoples of Russia, journalism should ensure the full-scale functioning of the national languages in media, and not be limited to coverage of the cultural traditions and customs of particular ethnic groups. Only in this case it will testify to the development of ethnic journalism. Nowadays, the situation is completely different.

As a whole, ethnic journalism in modern Russia has never been in a favorable situation. The processes of the last decade have only made the situation worse. Difficulties in organisation of the effective mass media are the result of the following factors: insufficient state funding or lack of interest from state bodies in the problems of the ethnic press; decline in the interest of the readership, change in media consumption habits due to digitalization; lack of creative employees speaking native languages of small peoples, etc.

Thus, it is a complex problem and nowadays it is becoming more and more acute. Modern ethnic journalism is mainly supported by state structures. Public and non-state associations participate in such activities occasionally, so they do not have any significant impact on the development of journalism. Nevertheless, functioning ethnic media, in which the state acts as a founder, a publisher, are not yet the attractive place to work for journalists, as prestige and competition for vacancies are important for them. This is a clear indication of the state of ethnic journalism.

Assessing the role of journalism education, we can surely state that modern students have no interest in the topic of ethnic journalism and desire to work in this field. They prepare themselves in career development in such fields of journalism that can provide high social status, good working conditions and wages as well. At the same time, the development of ethnic journalism and the functioning of effective modern mass media that can compete according to the rules of the "attention economy" requires high-qualified managers and creative workers.

21. Exploring media text using digital methods

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The digital turnaround is actively transforming and reshaping traditional formats and products. In the 2000s, media became not just a channel for the dissemination of information, but also a field, a new space in which the canonical forms of literature are transformed and synthesized. Media texts produced by new media, on the one hand, can still be interpreted by traditional methods of text analysis, since they are based on the logic of culture. On the other hand, new media function in the logic of computer programs, text in this logic is a code, and an image is a collection of pixels. Thus, a full-fledged study of the media text is impossible with only traditional philological and journalistic methods and means.

The Digital Philology Laboratory of the Institute of Media and Social Sciences and Humanities is developing a methodology for network analysis, spatial analysis and the study of modern media texts using computer vision. Network analysis allows you to analyze media text from social networks as a metatext (a set of texts related to a key topic, history, pretext, characters), as well as to reveal the specifics of storytelling in the network texts of writers and publicists. Computer vision makes it possible to analyze the external characteristics of the text (features of punctuation, font forms, forms of text arrangement on the page space, the presence of iconic signs) in order to study the state, determine the specifics of modern linguistic processes and genre-generic transformations in literature and journalism.

Using the method of spatial analysis, we carried out the study "Map of the emotional perception of the Urals", in which we analyzed the emotional categories in the literary texts of contemporary regional authors and, using modern GIS technologies (ArcGIS and Google maps), created a map of the emotional perception of the Urals.

At the moment, a program is being developed that allows you to collect from social networks only poetic texts from the pages of certain authors and then catalog them into groups in accordance with formal signs: stropic, astrophic, with syllabic ordering and without syllabic ordering. This software will allow you to collect and study a vast corpus of previously unexplored texts.

22. Journalism in AI-driven Social Media: New Communication Models and Competencies that Have (Not) to Be Taught?

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In 'New Normal' and digital economy AI-driven mediatization of society became normative (Digital Economics Programme, 2017). According to the newest Pew Research data (Pew Research Trends 2021-2025), AI-influencing in all the spheres stays deeper. Deep mediatization (Hepp, 2020) blurs the boundaries and is defined as a transgressive one (Shilina, 2021) forming new challenges for professionals, researchers, and educators.

For journalism and professional education, several dramatic challenges are arising and have to be discussed. First, the new communication model in

data and AI-driven media communication in data colonialism (Couldry, Mejias, 2017) and Data Turn society (Shilina, 2017) is here to stay. The AI-driven media communication model includes platform owners (and social media platform owners, in particular) as new quasi actors (Shilina, 2019). They build new models of direct communication with actors and influencers that blur the professional boundaries and ethics (e.g., the TikTok and Twitter latest projects).

The second point point in the data-driven communication model is connected with specificity of data collection, storage and use not only by journalists but by data owners as the new specific quasi actors of the social media communication model. The newest data journalism project analyses (Shilina, 2021) show that more than half of journalists don't use their own data but a secondary one. On the other hand, of course, due to data analysis journalist will have a more clear portrait of his audience.

Third, due to AI-driven technologies, media content became not only more targeted. In journalism, the AI-automatically generated media content is widespread and looks more and more 'native' (and more and more moral dilemmas are arising). However, according to one of our latest researches (Shilina, Kuvshinova, 2020), nowadays, it is not associated with novelty by the audience.

New types of 'targeted innovative' social media content (as I define it) are also AI-driven but multimedia. What do I mean? Since the 2020s, computer-generated images/influencers (CGI) are more and more widely used by corporations first and users. Let me remind you that the professional social media field is flooded with corporate news and texts (according to different data, about 2/3 of texts). The CGI-journalism opens up the new direction of AI-driven personal one-to-one communication in social media.

Forth, the latest trends of blockchain communication are strictly connected with NFT (non-fungible token, Abbruzzese, 2017; Chevet, 2018; Gallagher, 2021; Shilina Sasha, 2021). It means that dramatically new types of tech-driven creative media content and communication are arising.

These specific tech strategies and media communication models provoke new tech-determined journalism competencies. But the hottest topics are not on technology usage but professional identity and moral choice.

For instance, AI-driven technology usage also means that the single difference between a human (journalist) and a machine (AI program) lies in the emotional sphere.

AI imitates emotions and EQ but not passion (Shilina, 2021). Maybe, It's the single human feature and a sort of competence which is not imitated - and not to be taught.

Thus, all the other AI-driven strategies and tools would be studied by academic researchers, clarified for journalists, and taught in academia.

23. Flexibility of the “media-logic(s)” concept in the era of social networks and artificial intelligence algorithms

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The concept of "media-logic" is of high importance to the theory of journalism and communication. Introduced by D. Altheide and R. Snow in the 1970s, this term meant the expansion of "media success" (or effectiveness) into previously non-media segments of reality. Strictly speaking, media criteria predetermine a choice in such segments (for example, a politicians occupy high positions not because of their better political problem-solving ability, but because of their “telegenicity”). This approach was conceptually developed in the theory of mediatization.

In the development of social networks context, the concept of media-logics has shown its flexibility: researchers are carrying out a kind of "reboot" of the "media-logics" concept in relation to social networks, asserting several features that are now followed by different institutions (such as connectivity, virality, etc., see).

Social networks usually "cancel" the media-logics of the communication they are developing upon and establish their own "rules of the game" which they extend to other institutions; at the same time, the “superficial” media-logic of social networks is being replaced by a “deep” logic of algorithms that predetermines the “visibility” and “weight” of information. Under the “triumph of the algorithm” conditions, the concept of “media-logics” changes its content again: it has become “optimization”, “adaptation” to algorithms aimed at the “optics” which are established by user activity, data monitoring and upstream “pushing” of certain media products and messages to the high-ranking positions.

This process leads to the coexistence of various forms of media-logics, predetermined by the platforms themselves and their technological capabilities, it leads also to the development of diverse ways of "grammatization" of platforms.

24. University Media Space as a Platform for the Professional Training of Future Journalists

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At South Ural State University, future journalists, starting from the 1st year, can practice at the student television company SUSU-TV, at the SUSU radio studio, at the 360-degree newsroom, VR laboratory, newspaper SMART-University, and in management media communications and monitoring. The staff of the department, who also teaches at the Department of Journalism, Advertising and Public Relations, share with students their experience of running the official social networks of the university. SUSU is represented on such popular platforms as *Vkontakte*, *Instagram*, *Facebook*, *Telegram*, *Twitter*, *Yandex Zen*, *Odnoklassniki*. The content is prepared to take into account the peculiarities of each social network. So, on *Vkontakte*, news texts of sufficient volume with good photos are published, the prevailing type of content is informational. Meanwhile, *Instagram* posts mainly entertainment and news content, video or photo, short captions, multiple stories. Facebook content is created for a target audience of 30+ and students from neighboring countries. Future journalists learn to create a text, taking into account the specifics of each social network.

In addition, the ability to analyze and monitor media and instant messengers is essential in the work of a modern media specialist, where students are allowed to use various tools for monitoring and analyzing the sentiment and number of publications on a particular topic. Among the analytics tools, students study such services as *Medialogia*, *Scan Interfax*, *GoogleAnalytics*, *Yandex. Metrica*, *TelegramAnalytics*, *Popsters.ru*, and others.

In addition, during the study, students enter various professional media competitions to get extensive experience in the preparation and presentation of their media project. So, in the Chelyabinsk region, a competition for professional skills of PR projects has been held since 2018. In 2021, for the first time, students became participants in the competition. Future media specialists presented more than 20 projects to the competent jury. Students' PR projects aim at promoting construction services, online stores, the event

industry, as well as projects of charitable organizations and foundations. They won the project on the implementation of the first phase vaccination campaign against COVID-19.

Immersion in the specialty at an early stage of studying the discipline, masterclasses from leading media specialists of the industry, joint participation in competitions and defense of projects, work with texts for new social media - all this creates the preconditions for a confident, harmonious entry into the professional community after graduation.

25. Media Literacy in the Context of Media Diversification (Based on the Example of Russian-speaking Local Media in the Baltic Countries)

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Research of data from local Russian-language media in the Baltic countries has been carried out since 2020. The subject of the study is the content strategies of local media and their communities. 471 media were investigated in countries such as Russia, Finland, Sweden, Latvia, Estonia, Poland, Lithuania and Germany.

In the course of this study, first of all, we find out that Russian-speaking local media and their audience is often guided by commercial aim. At the same time, the educational and social missions of local media are ignored by the editorial policy or not given priority (Russia and Germany).

Secondly, in countries where media freedom is limited by the government (Russia, Latvia, and Poland), content and users' comments are marginalized. This fact could lead to volatility of media content connotation and users' comments from the left agenda to the right and vice versa.

Thirdly, during the quarantine many users have had a lot of free time - in April 2020 we observed a surge in the use of social networks and messengers in all the countries. At the same time, many local media have stopped publications for a while. This has led to an outflow of the population towards social media and non-linear video services. And if online services became beneficiaries and received new loyal users, then local media could not find their bearings, because they set other tasks initially (see concl. No1).

The fourth conclusion follows from the previous ones. During 2020-2021, a lot of civic media have appeared in messengers and social networks, which intercepted the agenda of local media. And this fact has represented in the results of the elections, which were held this year in many of the studied Baltic countries.

Summarizing these and other conclusions of the study, we can say that in the contemporary age of the media market diversity for all the actors there are two ways – either to regulate the market directly, or to build a media literacy policy not only for all age groups of the population, journalists, but also for media management and governments. This dilemma supposed to be discussed by researchers and professionals of the market.

**26. Transformation of journalism functions:
Challenges of the XXI century.
Why Journalists Should Protect Social Welfare?**

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Without a doubt, the 21st century poses new challenges for the journalistic community and journalists. The functions of journalism are undergoing transformation, and journalists must change as well. And as a practicing journalist, I see the following trends in our profession:

1. Transition from a process approach to a product approach,
2. Combining authorship and management,
3. New universalization,
4. New specialization,
5. Citizen journalism as an evolutionary leap in the profession: new media, freelance, blogging.

Technological progress, the rise of social networks and messengers have led to the fact that the speed of information exchange has grown to prohibitive level, and the information itself has become the main resource in human life. Never before, throughout the history of humanity, could people exchange and react to information so quickly. Now absolutely everyone can become an active

player in the information field and influence the opinion not only of their closest interlocutor, but also, for example, the opinion of a person in another country and provoke a particular political and social situation. The main problem and challenge of the 21st century is the following: everyone can engage in journalism, which in its turn leads to distortion of information, misinformation, and the intentional and accidental creation of fake news. With the advent of the Internet, we all live in a “global village” where one inept or, on the contrary, well-thought-out comment on social networks can lead to a revolutionary situation in the country and the world.

Examples:

1) Anti-vaccination information campaign: misinformation, fakes, pulling words out of context in the speeches of experts.

2) The tragedy in the shopping center "Winter Cherry" in 2018. An abundance of fake news in social networks about hundreds of dead children and subsequent popular discontent, rallies of miners demanding the resignation of the governor.

At the same time, misinformation, even not intentional, can occur in the work collective. Today, there is a trend towards transformation and merging of the functions of communications specialists and HR. For example, the situation at ChelPipe:

The year 2021 had been difficult for the Chelyabinsk Pipe Rolling Plant: the owner of the enterprise has changed and now the plant belongs to a Pipe Metallurgical Company.

In this regard, HR employees have a large amount of work: it is necessary to hire new personnel, solve the problem with employees, who do not meet new requests, and also transfer the team to a new payment system as smoothly as possible.

Obviously, they cannot cope without colleagues from the communications department. And it is no coincidence that the department where I work is called the Directorate for Corporate Social Responsibility and Integrated Communications, and the key concept here, in my opinion, is precisely “social responsibility”. My colleagues and I should not only correctly convey innovations to the team, but also work with the so-called “leaders”, with those who have respect and authority at the enterprise. Due to their perception of information and its possible further transformation or misinformation, corporate culture can be undermined. A healthy microclimate in a team cannot be built on lie. And this axiom can be translated to other communities. And since journalism is the activity of collecting, processing and transmitting information, it is journalists and the journalistic community that should be at the forefront of protecting information and combating fake news.

Solutions:

1. Revision of professional training of journalists, introduction of new disciplines that teach information verification.

2. Close cooperation of professional journalists with law enforcement agencies.

3. Fighting fake news and Internet bots by blocking is not always effective, due to the peculiarities of reposting in social networks and Internet algorithms. It is necessary to raise the issue at the state level on the creation of special teams of rapid response journalists. They will be sent to the scene of large-scale emergencies and disasters and in a non-stop mode check information, fight fake news and provide correct data.

27. The role of professional ethics in Journalism education in the digital era

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Digital technologies have influenced all phases of journalism activity: selecting a topic, researching information, fact-checking, creating material, distributing content and interacting with the audience. The digital media and technologies have changed the way journalists work and the way traditional media are organized. Huge amounts of information, the growth of fake news,

require additional knowledge of ethics standards from a journalist. The disciplines about ethics of journalism help students to define the norms of moral behavior.

The study ethical of standards is necessary in a world where people are increasingly overwhelmed by information from an abundance of sources, most of which they cannot trust. Knowledge of ethics should be an integral part of journalistic education.

The preparing of the future journalists in the South Ural State University is held at the Department of Journalism, Advertising and Public Relations where students study on a compulsory basis the professional and ethics codes of journalism. For this purpose, the discipline of Journalistic professional ethics was introduced into the curriculum, which lasts one semester. This discipline provides a foundation of knowledge about ethics and professional codes of journalism. The discipline develops ideas about the basic principles of the journalistic profession. However, basic knowledge in the field of journalistic ethics is not enough for further work. There are many cases involving ethical issues that require additional consideration.

When the student is immersed in the process of media production he is also confronted with questions of professional ethics. Moral and ethical standards are especially important in the study of practical disciplines by future journalists.

To this end, several practice-oriented disciplines have included units on journalistic ethics. Such disciplines as: Introduction to the Profession, Production of the student television or radio program, Convergent redaction and others consider contemporary ethical issues in journalistic practice. Knowledge of ethical standards will help students in their future professional activities and in solving difficult ethical dilemmas.

Narrative about the importance of ethical information help students to get necessary skills, competencies and attachment to a framework of values helps draw meaning and clarity from the torrent of information that surrounds our everyday live.

28. Media Market in the Era of Communicative Abundance: a New Challenge in Journalism Education

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The intensity of innovative technologies adaptation in the social and media space inevitably results in recurrent reforms of modern media systems. It adjusts educational standards in journalism, forcing them to be revised. Innovations such as technical-technological, ideological, economic, and social ones affect the fluctuations of the media market; the structure of media space and content consuming criteria are changing. The upgrade of information models takes a new twist on the media market, a change in its semantic and business priorities rebuilds the media system and results in the study of new media concepts in the training of a new generation of personnel. Thus, there is a question if the media industry is capable of responding quickly (theoretically/practically) to the challenges of the time, changes of media space, and associating oneself with universities so that the future journalists can get new knowledge, competencies, and skills of the digital age?

The Russian media system being a complex administrative, structural, creative, and manufacturing unit based on five trajectories (technological, economic, space, professional and cultural) has been upgraded several times. The entry of the Soviet media into the market initiated the fundamental reforms that shaped up the national media industry dramatically. The use of the Internet in the national and global information space, including the formation of new media, also changed the structure and functions of the media industry and the professionals' ideas about media products' functioning. These innovations have triggered social system reforms: social needs, individual preferences, and stereotypes have begun to change. The media industry responded to the transformations in society by its involvement

in the processes of convergence and integration, which enlarged the mass media structure and modified the concepts of professional activity in general. However, the rapid development of social networks, as well as the emergence of the "prosumer" (A. Toffler), captured a new twist in the social and media systems, which were quite stable. Further, the situation changed not in favor of the mass media. In search of audience growth, the media structures also became adherents of social networks, lowering their professional criteria for semantics and linguistics of information in favor of their business promotion. The growing quantity of bloggers, competing with the media and producing video and audio products through social media, has increased the semantic and linguistic primitivism in information flows. It is estimated that by 2023, video streaming in Russia will grow by 11.5% a year and reach \$328 million (www.pwc.ru). But this also increases the volume of information with underestimated intelligent meanings, given the audience's acceptance of this information model. The use of artificial intelligence (AI) being tested now will be a new turn in the media system. As a result, modern journalism education, like the media system, is to lower the professional criteria (semantics, linguistics, ethics, aesthetics) when creating a media product or to work out new educational methods of interaction with the consumer, where the quality and content of media products prevail.

29. The transformation of the media as a socio-political institution under the influence of artificial intelligence: posing the question

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The penetration of artificial intelligence into the media environment causes discussions about the technical features of the functioning of the media (their transition to interactive, online forms), the transformation of the genre system, etc. Despite significant changes in the mass media reality, according to some researchers, the functions and essence of the media themselves in

informing the population have remained unchanged. Therefore, it seems to us necessary to raise the issue of media transformation from a fundamentally different perspective.

Since its inception as an independent socio-political institution shaping public opinion, the activities of the media have not been questioned by anyone. And in the twentieth century, when audiovisual media were added to the print media, the media's ability to influence the audience expanded significantly: the media became even more clearly not just a mouthpiece for other public institutions important for the functioning of the industrial era, but they themselves developed their own view of socio-political processes in shaping the "agenda" in many ways.

Today, the mechanism for creating such an agenda is changing, including with the help of artificial intelligence. Artificial intelligence not only calculates the target audience for transmitting a message, but also ranks the requests of this audience, an automatic text editor composes a message already adapted for each segment of the target audience faster and better than a person, the bot disseminates the created information, increasing popularity, and thus creates an agenda day. This is no longer a question of technology and the automated process of disseminating information, but a question of the quality of this information and its impact on public opinion.

In this context, the problem of controlling such a process arises. And the researchers state that today it is largely impracticable: the ranking of events for the news feed is largely done by the same artificial intelligence. Consequently, the question arises about the "ethics of tasks" that are posed to AI by the "customer", and the problem of social responsibility of a subject working with artificial intelligence sounds from a different perspective. And let us note that the subject himself, programming the artificial intelligence, gets into the discussion field, because it is very difficult to determine who it is: a journalist? editor? advertiser? programmer? Another question: to what extent is the self-learning system of the network incorporated into this algorithm? – In some cases, the trained algorithm is able to decide on its own to include/exclude an event from the agenda. All this brings us to a new level of reasoning, where it is possible to raise the question of a fundamentally new stage in the development of the media as a socio-political institution in a different technological reality.

30. Social Networks as a New Vector for Supporting and Developing Scientific Interests of Future Journalists

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A characteristic feature of modern education is its science-oriented approach. Today, the concept of "one education for life" has been replaced by the concept of "education and development through life". The personal element of the future Journalist is of great importance in this regard since it is oriented toward consistent and prolonged self-development and self-motivation toward scientific knowledge and the expansion of scientific horizons.

The social, scientific, and practical interests of young people today are significantly displaced in the mass media space, which presents opportunities for their resource support and for expanding the sources of communication platforms and channels. In particular, the scientific mass-media environment is of great interest. According to leading rating sites (Mediascope), the social network «VKontakte» is among the top 10 most popular resources in Russia.

About 50% of the Runet audience visits «VKontakte» daily, and it reaches its height of 78% a month, women prevail (54.9%), the majority of are between the ages of 25 and 34. Social network Instagram is also one of the world's most popular among young people, with about 1 billion monthly users. The reach of users from Russia on Instagram in May 2021 was 59.4 million users, 59% of women and 41% of men aged 25-34, which makes them the most youthful and popular platforms.

Science in social networks is a new trend of educational space development. Science communication is becoming an integral element of the educational media environment, which makes universities take this factor into account in training future journalists.

The SUSU Department of Journalism, Advertising, and Public Relations has practical experience in this direction, as it was one of the first to support the trend and to apply with the project "Science is not boring!" in social networks («VKontakte», Instagram) popular with young people. An indicator of the success of the project is the active growth of the group and the number of new subscribers, with a predominance of age 19 - 27 years. It is also relevant for journalists from the position of forming a new type of competence - research media competence: the ability and readiness for high-

quality search, analytical research activities in a variety of Internet resources containing scientific topics and orientation.

To maintain the trend of youth science communication in the education of journalists and to strengthen their interest in the scientific mass-media environment, it is proposed:

1) to introduce an elective course for full-time and part-time 1-4 year students, «Science Communications in Modern Media: Trends and Technologies» for 36 academic hours with an equal breakdown into lectures and seminars;

2) with the support of the scientific asset of the department to open a «School of Young Media Researcher» to strengthen the early career guidance of school students of 9-11 classes and the formation of early scientific activity and media research competence of applicants as well as students who want to build a scientific career (masters, graduate school), forming the scientific reserve of the region and country.

31. Fact-checking and artificial intelligence technologies in the work of a modern journalist

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The professional competence of the 21st century journalist, like the editorial process as a whole, is inseparable from the concepts of “fact-checking” and “verification”. This is due to the fact that in the era of "digital disorder" media journalists must oppose the spread of disinformation.

In a broad sense, a fake is any false information mixed with gossip, fiction, propaganda, designed to show any phenomenon as plausible. Currently, fake information is published in all types of media: from social networks to information sites. The consequence of this is that the modern audience often blindly consumes incorrect information.

But the position of journalists on the network is also complicated by such a factor of digital platforms as algorithms and artificial intelligence. During our everyday work, we use search engine every day. Yet we should always keep in mind that every search engine uses algorithms designed to show information that would be interesting for a particular user.

Modern search engines connected with online advertising. For example, if you are looking for a new car in Google, it will later show your advertising about local car dealers. However, these algorithms work not only for commercial purposes: search engines analyzing all the income search requests from the user, marking the information, deciding what would be interesting for you to read and showing this information first.

With all that being said how could we rely on search engines during factchecking news? Algorithms designed to make our life easier and search the Internet nowadays is making it even harder especially for journalists and factcheck specialists.

Conclusion

At the international online roundtable “Journalism education in the era of social networks and artificial intelligence: digital technologies and ethical values, which was held by the World Journalism Education Council (WJEC), UNESCO and European Journalism Training Association (EJTA) at South Ural State University (Russia) three sections worked in English and Russian. The participants of the sections discussed such issues as professional and ethical values of the journalistic community; the impact of artificial intelligence on Journalism education in a digital society; digital storytelling as a technology for teaching the specifics of modern content; digital divide and conflicts in the new multi-platform space and many other issues of the current state of Journalism and Journalism education. The forum discussed the necessary ways of Journalism development and Journalism education in the era of social networks and artificial intelligence. The discussion was attended not only by university Journalism teachers, but also by representatives of the media and practicing journalists. Many interesting proposals were made for the effective development of Journalism education. Obviously, there is a need for a comprehensive revision of the methods of practical training and mastering journalistic and media communication skills; new approaches are needed in matters of ethics, digital journalistic competencies, permissible robotization of certain types of content and editorial processes, the reliability of information. The contradiction that exists today between the purpose of Journalism and the real activities of the mass media is key for the profession, and this raises the question of the need to preserve ethical values. The structure of education itself may need to be revised so that it becomes hybrid, compatible with both full-time and distance learning. This will undoubtedly entail the development of new types of educational standards, the introduction of new professional competencies, the writing of new textbooks, as well as the creation of expert analytical groups to form new educational strategies for the 21st century.

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