Analysis of Media Manipulation Influences as a Way to Develop Media Competence of Future Teachers (on COVID-19 Media Texts)

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Abstract

The article is devoted to the analysis of the role of manipulative influences in modern mass communications on the problems of Covid-19 and vaccination against it based on the latest media materials for 2021-2022. It is stated that recently there has been a sharp increase in disinformation about Covid-19 in the media space, which was called by World Health Organization "infodemic". To navigate in the flow of modern complex information a certain level of media competence is required.

Special attention is payed to the analysis of media manipulation influences as a way to develop media competence of future teachers. The problematic question of this article is: How the analysis of media texts about COVID-19 helps to solve the current problems of media education of future teachers.

Practical research is based on theoretical model of media competencies' development of future teachers worked out by A. Fedorov and A. Levitskaya which includes 3 components (diagnostic; content-target; efficiency) and markers of the effectiveness of media educational activities (motivational, contact, informational, technological, evaluative, creative, practical and operational). The results suggest that media education may help to confine misinformation and fakes circulation and thus to prevent serious socio-economic consequences.

The following approaches were chosen as research methodological guidelines: basic general scientific approaches (systems theory, structural theory, functional theory); paradigmatic approaches based on generally accepted observations and theories that reveal various aspects of the determination of the social development; instrumental approaches that have an effective algorithm for solving the problems which was set up in this research (polysubjective, or dialogic, comparative and hermeneutic).

Keywords: media competence, students, teachers, media and information literacy, media education, media manipulations, models.

1. Introduction

The article is devoted to the analysis of the role of manipulative influences in modern mass communications on the problems of Covid-19 and vaccination against it based on the latest media materials for 2021-2022.

Human beings tend to be afraid of something vague, unknown, new, unexplored or understudied. Covid-19 is one of those new phenomena. This disease is called a SARS-CoV-2 novel coronavirus infection (COVID-19), the effect of which is still poorly understood. In a short period of time this new virus caused a pandemic, affecting millions of people in various countries around the

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world. It challenges not only medics, scientists, politics, economists but also a wide range of common public, who doesn't have enough knowledge to judge upon the topic, but still produce a lot of comments especially in digital press. Sometimes these are just erroneous assertions, and sometimes they are malicious falsifications, especially dangerous for people's health in a pandemic.

To combat various kinds of fakes and disinformation, in many countries special departments and Internet sites are being created in order to verify facts, investigate the sources of rumors, false opinions and establish the truth. However, the results of the work of such structures cannot always be thoughtlessly trusted. Under the pretext of telling the truth, some of them propagate their own ideas about what freedom of the media is and their own point of view, that is biased and far from impartial. To navigate in the flow of modern complex information, a certain level of media competence is required.

The problem is that, in general, the modern Russian audience does not have a high or even enough level of media competence to be able to recognize fakes about the coronavirus infection and draw reasonable, not harmful to health conclusions.

We are particularly concerned about the lack of critical, thoughtful thinking among school and university graduates and, in particular, future teachers. After all, modern teachers are required not only to understand and correctly interpret media texts, but also to carry out media education of schoolchildren in the context of the development of the information society.

The relevance of this problem is proved by UNESCO documents. In the UNESCO booklet devoted to the World Freedom Day 2008 we may read: "News consumers need the necessary skills to produce and circulate information and engage with the media, and also to critically analyze and synthesize the information they receive. These elements, along with media professionals adhering to the highest ethical and professional standards designed by practitioners, serve as the fundamental infrastructure on which empowerment can prevail … In all facets of community life, the media play a central role as the conduit for information and potentially as a catalyst for activism and change" (UNESCO…, 2008: 7-9).

A lot of authors refer to the *World Health Organization (WHO)* which has emphasized the equal importance of confining the circulation of misinformation in order to prevent serious socio-economic consequences during the Covid-19 pandemic (Das, Ahmed, 2021; Tangcharoensathien et al., 2020; Vraga et al. 2020). *WHO* called misinformation shared on social media about Covid-19 an "infodemic", which requires paying special attention to the development of audience's media competencies.

Obviously, media education enables people to exercise their right to freedom of speech and information. In this sense, media education not only promotes personal development, but also increases social participation, prepares for democratic citizenship and political understanding. That's why it is necessary to develop media education as a part of the concept of lifelong learning.

Today, the dependence of the audience on the infosphere has increased dramatically. Thus, we need to understand the challenges of the infodemic context in which we exist if we want to address the negative impact of misinformation and fakes in a reliable and effective way. Having in mind all these we pay special attention in our research to the analysis of media manipulation influences as a way to develop media competence of future teachers. The problematic question of this article is as follows: How the analysis of media texts about COVID-19 helps to solve the current problems of media education of future teachers. We believe that the results of our study will help to theoretically substantiate ways to improve the anti-manipulative media competence of students of the pedagogical profile.

2. Materials and methods

Our research is based on the analysis of recently published materials (2020–2022) in different foreign and Russian journals connected with the issues of media manipulation influences in COVID-19 media texts and the ways helping to develop audience's media competence. We also analyze latest news media texts, TV programs and some examples from the process of media education at the university classes with future teachers. Methods of theoretical analysis, synthesis and comparative enquiry are used. The following approaches were chosen as research methodological guidelines: basic general scientific approaches (systems theory, structural theory, functional theory); paradigmatic approaches based on generally accepted observations and theories that reveal various aspects of the determination of the social development; instrumental

approaches that have an effective algorithm for solving the problems which was set up in this research (polysubjective, or dialogic, comparative and hermeneutic).

3. Discussion

Recently, during the COVID-19 health crisis, the flow of disinformation and fake news sharing dramatically increased. In this connection there have been appeared a large number of publications related to the problem of media manipulation (Arin et al., 2021; Barreto et al., 2021; Benoit, Montesi, 2021; Mauldin, 2021;Theocharis et al., 2021) and finding ways to improve the anti-manipulative media competence of the audience (Abdel-Raheem, Alkhammash, 2021; Billig, 2021; Brennen et al., 2021; Janssen et al., 2021; Linden et al., 2020; Moorhouse, Kohnke, 2021; Rodrigues, Xu, 2020; Shulman et al., 2021).

At the outbreak of COVID-19 pandemic in April 2020 the team of scientists from the Reuters Institute published the results of their research about the main types, sources, and claims of COVID-19 misinformation. They stressed that "misinformation about the pandemic presents a serious risk to public health and public action" (Brennen et al., 2020). They analyzed the 225 pieces of misinformation, rated false or misleading by independent professional fact-checkers and coded it for the type of misinformation, the source for it, the specific claims it contained, and what seemed to be the motivation behind it. According to Professor Nielsen "addressing the spread of misinformation about COVID-19 will take a sustained and coordinated effort by independent fact-checkers, independent news media, platform companies, and public authorities to help the public understand and navigate the pandemic" (Brennen et al., 2020). Agreeing with these statement in general, we can add that it is necessary to accentuatethe significance of media education which may help to address the spread of misinformation about COVID-19 and support audience to analyze, deconstruct and understand it from critical position.

Some authors connect the issue of media manipulation influences upon consumers with political ideology and with media coverage of the threat of COVID-19. For example, such US researchers as D.P. Calvillo, B.J. Ross, R.J.B. Garcia, T.J. Smelter, and A.M. Rutchick suggest that the relationship between political ideology and threat perceptions may depend on issue framing by political leadership and media. The authors claim that once a threat of COVID-19 "becomes politicized, the polarization induced by the current political environment may shape the way it is perceived. In the case of COVID-19, conservatives with higher levels of presidential approval were less knowledgeable about the virus, less accurate in discerning real from fake news, and in turn saw it as less of a threat. These polarized perceptions may well inhibit collective action and threat responses that require significant levels of community-level coordination" (Calvillo et al., 2020: 1125).

It is also important to note that Reuters Institute study also shows distrust of news and information about COVID-19 from political sources by people in eight countries (Argentina, Brazil, Germany, Japan, South Korea, Spain, the UK, and the US). This research displays that "the handling (and coverage) of the crisis has become more explicitly political, but trust in news has declined less than trust in governments" (Nielsen et al., 2021). The research findings also prove that those who follow the news are also less likely to believe in vaccine misinformation.

By exploring the ideological constructs of citizens towards acceptance or rejection of disinformation during the heightened time of a COVID-19 global health crisis R. Das and W. Ahmed argue that government, public, private and social media agencies have received the biggest wakeup call for the necessity to take tighter actions in the wake of COID-19 infodemic (Das, Ahmed, 2021). They suggest to develop and apply sophisticated identification and analytical tools based on advanced NLP-based machine learning techniques, that is, reinforcement learning (RL). In addition to machine and deep learning algorithms, the authors offer to use trained human interventions in understanding the narratives and trajectory of misinformation in developing preventative measures and policies (Das, Ahmed, 2021). Thus, it turns out that media education becomes one of the leading sources for overcoming the negative impact of COVID-19 misinformation on information recipients.

The issues of cause and origin of the fake news on COVID-19 and vaccines that were circulating on catholic networks are in the center of the research interest done by A. Sarukhan (Scientific writer/senior Communications Officer at Barcelona Institute for Global Health). At the end of the project research she came to the conclusion that some fake news originate from the misinterpretation of scientific results, some – from a lack of scientific literacy among society, and others – from doubts – often valid – regarding the safety, efficacy or impact of vaccines that caused

mistrust due to the unprecedented speed at which they were developed. Her research findings are as follows - misleading information is a universal problem that needs to be tackled with good communication and a better education (Sarukhan, 2021).

The need to increase public health presence on social media and the urgent need to remain diligent in educating community members about COVID-19 myths – is the call of scientists from the United States who assessed COVID-19 knowledge among university students. The authors declare that their "findings support communities need continued education and reinforcement of COVID-19 known facts to address the abundance of misinformation available online and on social media sites" (Chesser et al., 2020: 543).

According to Vraga and her co-authors scientific literacy helps people distinguish between good and bad information on Covid-19 and could reduce the amount of misinformation shared (Vraga et al., 2020: 476-477). The authors emphasize that the actual situation is an ideal time to encourage and facilitate information users to participate in more active curation of social media feeds correction. They recommend encouraging users to correct Covid-19 misinformation they see on social media as an extension of their news literacy knowledge and skills in order to protect themselves and others from misinformation.

Intervention strategies which nudge people to be skeptical of the information they come across on social media are suggested by researchers O.D. Apuke and B. Omar. In order to help policy makers in curbing the spread of fake news they proposed a conceptual framework combining two theories; affordance theory and the cognitive loadtheory to test how information sharing, status seeking, self-expression, online information trust, informationoverload and news-find-me perception predict fake news sharing on COVID-19 (Apuke, Omar, 2021).

Several studies to date have viewed COVID-19 misinformation through a visual lens. In the works of J.S. Brennen, F. Simon, R.K. Nielsen special accent is made on the diverse roles of visuals employed in the service of COVID-19 misinformation. The authors argue that visuals not only serve to illustrate and help frame misleading understandings about the virus, but also work to establish the authority and facticity for false claims. Focusing explicitly on the visual content in coronavirus misinformation, its function, and its characteristics they provide the analyses of manipulative techniques with the help of which manipulative visuals are produced (Brennen et al., 2020).

We cannot but agree with the authors who state that "the scale of the crisis and the abundance of misleading information demand that scientists, health information professionals and journalists take serious steps to help the general public to identify and recognise fake news stories. There is a need to train people, especially the young, about the nature of social media and how to use it effectively and safely if we are to win the war against fake news" (Naeem et al, 2020).

In connection with the issue of our research the up-to-date information under analysis is of great interest, because it helps to uncover the tools of manipulations about coronavirus pandemic, and the ways to respond to it in the process of future teacher's education. So we think that our focus on mediaeducation may help shape students' media literacy and develop their ability to distinguish potentially dangerous and misleading information or narratives which is spreading with great speed and in large numbers especially during the COVID-19 pandemic.

4. Results

We build our practice research on the basis of theoretical model of media competencies' development of future teachers in the process of analyzing media manipulation effects worked out by A. Fedorov and A. Levitskaya. This model includes several components:

1) diagnostic (ascertaining) component: definition of the levels of development of the audience's media competence with an emphasis on the ability to analyze media manipulations; questioning, testing, analysis of the audience's creative work, observation;

2) content-target component: theoretical component (a unit for history and theory of media culture, for the development of media educational motivation) and practical component (units of creative and analytical activities based on media material);

3) efficiency component (a unit of final questionnaires, testing and creative works of the audience and a unit of the final identification of the levels of development of the audience's media competence with an emphasis on the ability to analyze media manipulations) (Levitskaya, Fedorov, 2021: 325).

We implement the model in order to help students to identify misinformation, to get ready to fight against fake news dissemination, as well as to expand scientific dissemination of information on topics involving the COVID-19 pandemic.

Implementation of this model deals with setting up and working out several tasks, designed to form and develop following markers of the effectiveness of media educational activities: motivational, contact, informational, technological, evaluative, creative, practical and operational (Levitskaya, Fedorov, 2021: 328). To form these markers we developed and conducted a series of practical seminars. Our practice study took place between September 2021 and February 2022 with the second year students of Rostov State University of Economics, Russian Federation. Working with university students has given us the opportunity to put into practice several methods of media education to help combat fake news as it grows.

In order to develop students' abilities to analyze media manipulations we used different methods and techniques. In class students discussed different examples of Covid-19 misinformation, myths or fake news and vaccines disinformation. In the form of a dialogue they commented on information they came across, classified news media information, tried to identify common types of misinformation relating to COVID-19, examined and characterized the potential harm it can cause.

The analysis of publications about vaccive hesitancy, pro − or anti-vaccination messages against the COVID-19 makes also possible to develop such students' media competence features as perceptual, evaluative, creative, practical and operational ones. Studying the above mentioned news stories students usually pay attention to the negative character of the discourse on the issue of vaccination. They note that very often the reasoning of vaccine opponents is rude, deleterious; their comments are ignorant and offensive. The students pay attention to the fact that sometimes it is very difficult even for scientists to argue and dismantle Covid-19 myths and vaccines disinformation.

Many examples used by students illustrate such situations. And one of them is the Gordon's Doc-tock show. In several broadcasts a number of invited experts have failed to argue with one vaccine denier. An example is from the release of the program dated December 16, 2021. During the show, the guest anti-vaxer was removed from the studio because of extreme aggressiveness and unfriendliness. The show host (A. Gordon) regretted his decision to invite "anti-vaxer" for a discussion, since people of such kind consider themselves crusaders on a holy mission against conspiracy involving the government, big pharma and the mainstream media. As a rule, students agree that it is unacceptable to invite such participants and give them the opportunity to promote through the broadcast their malicious and anti-scientific points of view, which may put public health at risk.

In the process of analyzing media manipulative influences it is also possible to discuss the work results of special departments and Internet sites created in order to verify facts, investigate the sources of rumors, false opinions and establish the truth.

Here is only one example of the class discussion about one of the largest internet news portal named DELFI – "Lie Detector". This portal was created in Lithuania, as they say, an independent and open fact-checking department. Journalists from different fields of activity claim that they united in order to find out the real facts. They declare that they seek to carefully analyze the public statements of politicians and experts to make sure that they are consistent with the facts.

There are many interesting publications about "anti-vaxers", conspiracists, QAnons and COVID-19 fakes. At the same time, the authors and employees of this department have a clearly biased attitude towards Russia and its media. Lithuania's journalists uncompromisingly argue that just Russia is the main source of false and unverified information about Covid-19. At this site we may read the following version about negative impact of Russia on the spread of Covid-19 disinformation: "Pro-Kremlin media have been spreading conspiracy theories about the coronavirus since the beginning of the outbreak: in the first case, a comment on the topic, which we registered on January 22, claims that the coronavirus was "most likely developed in NATO biological laboratories". In doing so, they claim that "DELFI's Lie Detector" met the organization's extremely high standards by pledging to continue the tradition of honest and quality journalism" (https://www.delfi.lt/ru/detektor-lzhi/?page).

This is an example of a clear manipulative media influence on the audience, for the understanding of which a sufficient level of media competence must be formed among the

students, which presupposes the development of analytical thinking, creative, practical, operational and other markers of media literacy.

Thus, we believe that such kinds of university class discussions, debates and interchange of views on latest news media texts, digital press, TV programs, Internet sites regarding Covid-19 are concrete steps to form students' media literacy, their abilities to see the pandemic crisis in a broad framework, and thus to diminish the spread of misinformation on Covid-19.

5. Conclusion
In conclusion of our research, it is necessary to summarize several important points. Our content analysis of the latest publications has shown that the consumption of publications related to the coronavirus has dramatically increased both in social media outlets and in traditional media. The COVID-19 with renewed vigor has launched/aggravated the processes of disinformation in the media space. In this regard, it is necessary to strength en the work on media education of population in general and the formation of media literacy of future teachers in particular.

We are convinced that engaging students in the analysis of media manipulative influences related to COVID-19 problems is one of the means to develop their media competence and therefore is a way to help people navigate the pandemic.

6. Acknowledgements

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