

Using propaganda methods and markers in modern user-generated content: An example of a discussion on COVID-19 vaccination in the Telegram chat¹

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Abstract

Over the last few decades, there have been several generations that can be called “digital”. While older people may not ignore traditional media, younger generations receive information mainly or completely from the internet and new media. These new media platforms are not only means of mass media and communication, but also a convenient tool for propaganda, which is used by their users themselves. In the era of digital media, users are no longer only objects but also subjects. One of the most controversial topics of 2021 was the problem of vaccination against COVID-19. Representatives of the mass audience were instantly divided into “vaccinated” and “COVID dissidents.” Using the Telegram discussion chat of the Ural Federal University as an example of this phenomenon, the authors analyze propaganda methods used by both sides in this kind of confrontation. As research methods, we used content analysis of chat messages, as well as a survey of its participants. Many participants in the chat discussion accused each other of propaganda. Therefore, we decided to find out whether the propaganda was really obvious to the majority of subscribers, and what type of propaganda (coming from vaccination supporters or opponents) was noticed by the subscribers. Vaccination against the coronavirus infection

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remains a highly debatable issue that needs to be addressed. We show that an open and honest discussion, without the use of propaganda methods, is required to build confidence when addressing any forms and methods of mass vaccination in modern social practice.

Keywords

Propaganda, user-generated content, propaganda methods, manipulation, vaccination, COVID-19.

Introduction

At the beginning of 2020, the world was swept by the coronavirus pandemic. Then, at the beginning of 2021, a struggle for mass vaccination began. The conflict was taking place both among countries (as each of them promotes its own vaccine) and among ordinary people who are instantly divided into “vaccinated” and “COVID dissidents”. Initially, the word “propaganda” (from Latin – “to spread” or “disseminate”) did not have a negative connotation, and in its most neutral context, it meant the dissemination of certain ideas or information. However, today, this word is rapidly becoming a derogatory term. Propaganda is seen as something negative and dishonest. Words such as “lies”, “distortion”, “deceit”, “manipulation”, “mind control”, “psychological warfare”, “brainwashing”, and “palaver” are often used synonymously with propaganda (Jowett, & O’Donnell, 2012). In recent studies, the concept of propaganda is often associated with information warfare, post-truth politics, and manipulation (Bykov, 2021).

“Propaganda itself is a kind of activity for disseminating information of various content (ideas, views, assessments, facts, etc.), the purpose of which is to form certain beliefs in people’s minds or to induce them to a certain way of behavior. The difference between propaganda and other types of information is that it affects consciousness and deeper structures of one’s mental state: emotions, mood, psychological experiences, attitudes, and expectations. It is designed to form a biased attitude towards certain aspects of public and political life” (Bredikhin, & Udaltsov, 2020). As the researchers write, “the influence of propaganda on a person is like that of religion”. It “seeks to give a sacred meaning to its ideas and make a person accept them on faith, without requiring any proof” (Sharikova, 2020).

In modern English-language literature, propaganda is often described as the intentional manipulation of public opinion (Zollmann, 2019). However, most positions regarding the concept of propaganda (ibid) reduce it to the influence of the elites, the ruling minority, or the media themselves. This author mentions

another point: propaganda can also come as a spontaneous and unconscious diffusion of ideology from members of a society. Finally, the author defines propaganda as “the forming of texts and opinions in support of particular interests and through media and non-media mediated means with the intention to produce public support and/or relevant action” (ibid). This definition, being quite broad, can also include propaganda by internet users and the so-called new media.

Meanwhile, interactivity is one of the important features of modern online publications. In this case, the modern user is often not only an object but also an active subject. Users of new media often collect and share information, and they may use propaganda methods and a propagandistic rhetoric, even being unaware of it. Researchers have already written about propaganda in social networks (Mejova, Petrocchi, & Scarton, 2021), and this article is also devoted to such propaganda in user-generated content. International research often associates propaganda with mass communication rather than interpersonal communication. However, the new media practice requires a systematic analysis, since this kind of mechanism is fundamentally different from the traditional propaganda model, in which the main role is played by mass media controlled by authorities and political elites.

In the digital age, the Internet has become the main platform for this kind of influence, especially among younger generations who use social networks and instant messengers as the primary communication channels. Modern youth, and even some representatives of the older (“analog”) generation, cannot imagine living without new technologies (Gokun, 2021). Trust in social media is increasing. Political and social life now includes generations formed in a new socio-cultural and technological context. Thus, the digital environment is becoming an important new field for propaganda (Solovey³, 2018).

Traditionally, there have been two main positions regarding the concept of propaganda: propaganda as deliberate, planned, and long-term manipulation of public opinion, and propaganda as a tool for promoting certain ideas. However, modern interpretations of propaganda are more universal and describe it as an impact on social groups to ensure the dominance of a certain doctrine over competing analogues. Methods can include both persuasion (using logic and arguments) and suggestion (imposing a position against a background of a preliminary decrease in criticism of perception), as well as manipulation (Gorbatov, & Gurushkin, 2021). This approach combines both traditional positions in relation to propaganda and is used in this research.

³ Declared a foreign agent in the Russian Federation.

We have analyzed user-generated content, which has characteristics such as spontaneity, decentralization, and a lack of focus. Propaganda methods in user-generated content are too diverse, requiring a broad approach to the concept of propaganda. We can't simply call it "deliberation" or "exchange of ideas". More important in this case is what unites all these approaches. Propaganda always provides one-sided information to convince people of the "only true" point of view and often uses incorrect methods of persuasion.

The active promotion of vaccination against COVID-19 began in 2020 and still continues worldwide at all levels, from government to interpersonal. During major crises, people experience an increasing need for information and understanding (Spyridou, & Danezis, 2022). For example, from February to June 2021, the World Health Organization and its partners implemented an interactive global education initiative that enabled anyone interested in learning more about vaccination to receive the latest information, ask questions, and share their experiences (Goldin, Hood, Pascutto, et al., 2022). In turn, scientists are studying respondents' vaccination intentions in light of the perceived and increased risk of vaccination (Gursoy, Ekinci, Can, & Murray, 2022; Heinrich, Camacho, Binsted, & Gale, 2022; Lueck, & Callaghan, 2022), as well as general opinions and emotions about various stages of the COVID-19 pandemic, from the outbreak to vaccine distribution (Mahdikhani, 2022). The authors of this article have also raised similar questions.

Materials and methods

In this study, our aim was to analyze the methods used and highlight propaganda messages in user-generated content publications on COVID-19 vaccination, using the example of the Telegram discussion chat of the Ural Federal University (UrFU). We were interested in examining the statements of both users who support vaccination and those who oppose it.

Users of student chats are united by their social status and age, which creates a socially and intellectually equal platform for discussion. Additionally, they use the Internet for informal communication and do not limit themselves in emotional statements, making the use (whether consciously or unconsciously) of propaganda methods more evident. It is also noteworthy that modern students, being representatives of the so-called digital generation, continuously use their smartphones to chat, allowing discussions to unfold through constant, uninterrupted real-time communication, resulting in a vast number of messages that provide ample material for this study.

Simultaneously, the student discussion is noteworthy from a scientific perspective for analysis. On the one hand, being representatives of the digital

generation, they are primarily guided by new media where opposing opinions, including those on vaccination, are widely represented. On the other hand, these individuals represent intellectual youth, many of whom use scientific citations as arguments. Consequently, this group includes both sides of the conflict – “vaccinated” and “COVID dissidents” – who, due to their age, emotionally defend their positions.

The analysis materials were exported on July 10, 2021, at 12:20 pm. The university chat was technically linked to the Telegram channel⁴. At the time of verification, there were 8,165 channel subscribers and 525 chat subscribers.

Content analysis and online survey were utilized as research methods. Initially, the channel and chat messages were analyzed, starting from June 17, 2021 (the day on which a heated emotional debate began in the UrFU discussion chat, following an official announcement on vaccination by the University administration). From all the messages in the UrFU chat during the specified period, we identified those related to the vaccination issue and divided them into two groups – “for” and “against.” Messages on other topics, as well as statements on vaccination with a neutral connotation, were excluded.

In addition, we analyzed the messages of the UrFU channel separately, as this represents the official position of the University. Moreover, it should be noted that news from the channel is automatically copied into the chat, thereby forming the basis for the subsequent round of discussion among the participants. Given that researchers have identified many different propaganda techniques (Peycheva, 2019), we have categorized only those that pertain to the actual messages of the participants, as it is an evolving and constantly changing field of discourse.

The second method we used was a survey. Since many participants in the chat discussion were accusing each other of propaganda, we decided to find out whether propaganda was actually apparent to the majority of subscribers, and which type of propaganda (coming from vaccination supporters or opponents) was noticed by the subscribers. Of course, this survey does not qualify the content as propaganda; it is simply an additional element to the main analysis. We aimed to test how receptive users are to propaganda methods and whether they can recognize them. The survey was conducted online using Google Forms, and we asked the participants the following questions:

First, have you noticed any propaganda messages related to COVID-19 vaccination in the UrFU chat? (When answering this question, the respondent also had to indicate which side the propaganda was coming from); *second*, did

⁴ https://t.me/urfu_ru

the messages in the UrFU chat influence your decision to get vaccinated against COVID-19; *third*, in your opinion, is the vaccination propaganda campaign effective (within the UrFU context), or does it have a negative effect? Also, if desired, survey participants could add specific examples of statements from the UrFU chat, which they considered propaganda.

In total, 92 people participated in the survey (the number of respondents was limited as we were only interested in the subscribers of the UrFU chat, and there are only 525 of them). As expected, the majority did not take the time to look for specific examples of propaganda, but we were able to gain a broader understanding of the opinions of the chat subscribers. The primary sources for this research are publicly available (Oleshko, Mukhina, & Malik, 2021).

Results

1.1 Propaganda methods of the official Telegram channel

As a starting point, let us assume that modern propaganda methods are flexible and ever-changing tools. They change in accordance with the traditions of a particular area, the pace of time, and the context in which they are used. Furthermore, audiences can become desensitized to certain methods of influence over time. As a result, a skilled propagandist must always be searching for and inventing new methods of influence.

Modern researchers identify various propaganda techniques, including information blockade, feedback, rewriting history, ranking, sensationalism, creating associations, sticking labels, psychological shock, substitution of concepts, and trolling (Fisenko, 2020). In addition, when describing effective forms of propaganda influence on the masses, researchers also note the importance of using vocabulary that is understandable to most members of the audience, repeated messaging, and avoiding any differentiation of propaganda that allows for alternative perspectives or doubts about the “absolute truth” of the initial message (Golodov, 2020).

As a basis for the study, we chose a classification that we believe includes a fairly comprehensive list of both classical and modern propaganda methods (Da San Martino, Barron-Cedeno, Wachsmuth et al., 2020). We used an approach that enables us to characterize the originality and dynamics of discussions in the framework of the analysis, with reference to the online platform (chat), the topic of discussion (vaccination), and the real and potential subjects of propaganda influence (students).

We began analyzing the results after the official university announcements were posted in the chat. During this period, a total of 74 messages were published

on the UrFU Telegram channel, with 14 of them being considered as promoting vaccination, and another 2 as indirect propaganda. As mentioned earlier, the discussion was sparked by the morning news on June 17 that students who were neither vaccinated nor had antibodies would be given spaces in the UrFU dormitory in the last turn.

Among the methods of vaccination propaganda used by the UrFU channel, the following can be noted:

1. Appeal to fear / prejudice:

– The threat of deprivation of specific benefits: dormitories and, in the future, possibly admission to offline classes (*“We cannot endanger the lives of thousands of students and close the dormitories for a lockdown”*; *“In Moscow and the Moscow region, they want to go even further and prevent access to offline classes for non-vaccinated students or those who did not have COVID-19 antibodies”*; *“Universities are free to decide whether to admit non-vaccinated students to classes – Ministry of Education”*; and a survey on the topic of *“whether to allow non-vaccinated employees to the University”*);

– Negative statistics (*“Four new COVID-19 cases among UrFU students were registered this week”*; *“The coronavirus has not yet been defeated, as evidenced by the increase in the number of cases in many regions”*; *“This week, 26 laboratory-confirmed cases of COVID-19 infection were recorded at UrFU”*);

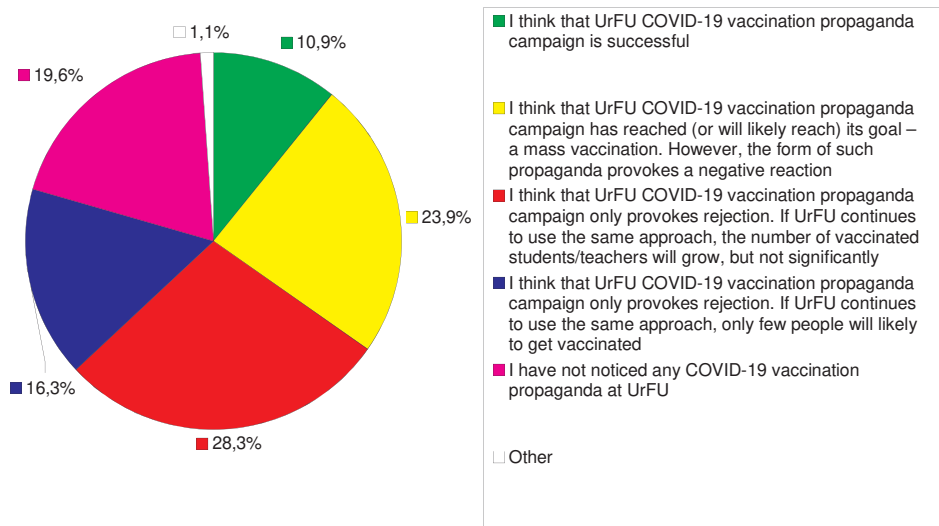
– Oppressive facts (*“The University expresses condolences to the family and friends, fellow students and teachers of the 22-year-old Masters-degree student who died on July 3 (...) On June 19 he received a positive PCR test for COVID-19, on the 21st the doctors connected him to a lung ventilator. He was not vaccinated”*; *“Ex-Dean of the UrFU Department of Journalism Boris Lozovsky has got infected with COVID-19”*).

2. Appeal to authority (*“The most popular questions in the material of our colleagues from the Higher School of Economics were answered by volunteers of the Institute of Public Health of the Sechenov University (...) It was confirmed that mask regime and vaccination are most efficient in preventing the spread of coronavirus infection”*).

It is interesting that the majority of respondents (68.5%) indicated negative emotions towards such propaganda when answering the question, *“In your opinion, is the vaccination propaganda campaign efficient (at UrFU level) or, on the contrary, does it have a negative effect?”* Although they assessed the level of its effectiveness differently, another 10.9% considered the propaganda campaign successful (without indicating negative emotions about its format), and 19.6% said they did not notice any propaganda at all.

Figure 1

Results of a survey among the users of the UrFU discussion chat who responded to the question of whether the UrFU channel’s propaganda was successful or not



In general, it should be mentioned that the propaganda of the official Telegram channel of UrFU was quite direct: there were only a few messages that could be marked as a delicate attempt at manipulation.

1.2 User-generated propaganda messages

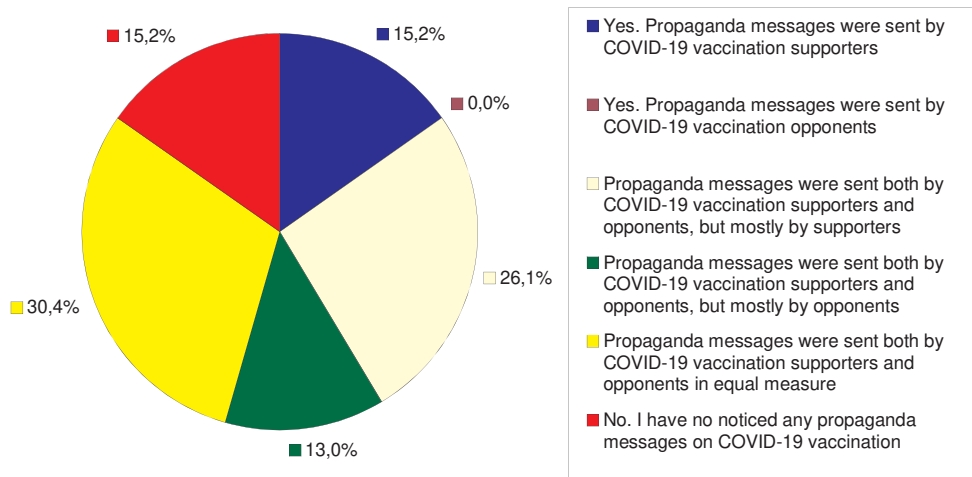
User-generated messages in this chat are far more illustrative. The chat is open to everyone, but it is primarily used by UrFU students. UrFU employees and graduates write less frequently. So, after analyzing chat messages about vaccination, we found 71 messages from supporters of vaccination and 131 messages from opponents of vaccination.

The question “Have you noticed any propaganda messages on COVID-19 vaccination in the UrFU chat?” strongly divided respondents into two sides. However, it is interesting to observe how people’s perception differs from the actual data. The majority said there were equal propaganda messages coming from both sides (30.4%). Some insisted on the absence of propaganda (15.2%). But when the respondent emphasized the predominant propaganda from one of the sides, it referred to vaccination supporters (41.3%) – only to them or mainly to them. Another 13% believed that the propaganda mainly came from opponents of vaccination, and no one indicated that the propaganda came

only from them. As mentioned above, the actual data showed that the number of messages from vaccination opponents almost doubled the messages from supporters (131 versus 71).

Figure 2

Results of a survey among the UrFU chat users who responded to the question of whether they noticed any propaganda message in the UrFU discussion chat



1.3 Propaganda methods of vaccination supporters

Specific propaganda methods used by vaccine advocates include:

1. Name calling or labeling:

– Declaring the opposite opinion as spam (“Well, spam is also not good”; “Sending bulk messages that no one asked for is also spam”);

– Declaring opponents amateurs to argue, regardless of their arguments (“Well, they’re just protesters, it doesn’t matter what they’re against, as long as they’re making noise”);

– Calling opponents fools (“All vaccination dissidents are narrow-minded”; “After such news about your mental health, how can we, as healthy people, have discussions with you about the benefits of vaccination?”; “Your point of view is ridiculous and stupid”).

2. Whataboutism:

– Attributing “obscurantist” theories to vaccination opponents, even if they did not express such thoughts (“Why are you shouting that the vaccine hasn’t

been fully researched and that I'll grow scales?"; "Are you one of those 5G tower and microchip conspiracy theorists?"; "If you want to listen to fairy tales, listen to anti-vaxxers"; "Obscurantists don't need higher education");

– Declaring discussions with opponents as useless (*"You can't convince active anti-vaxxers, so don't waste your time"; "Dialogues with anti-vaxxers are amusing but pointless");*

– Making up arguments (*"Can we call any arguments against several decades of global research "adequate" at all?");*

– Personal attacks (*"If you lie when you publish, you're a despicable scientist. Don't equate yourself to the best minds in Russia"; "You'd be better off writing scientific studies").*

3. Causal oversimplification:

– Declaring a personal statement/opinion as a fact without providing arguments (*"The attempt is good, but one fact is missing. My messages do not carry any propaganda");*

– Declaring information as proven without presenting arguments (*"The effectiveness of Sputnik V has already been proven"; "Such cases (Author's note: deaths from the vaccine) have not yet been registered, while millions of COVID-19 deaths have been registered"; "The vaccine does not guarantee that a person will not get COVID-19. It guarantees that someone might still get sick, but they will easily endure it because their immune system will be familiar with the virus"; "Getting COVID-19 from a vaccine is out of the question");*

– Unconfirmed statistics (*"Thanks to the vaccination of children, infant mortality has decreased hundreds of times over the past 50 years"; "If 100 masked people cough at you while you are wearing a mask, then you will get sick in 1-2 cases. If no one wears masks, your chances of getting sick raise by times"; "In the case of the delta strain, the vaccine effectiveness is really reduced, but only by a maximum of 10-20%");*

– Putting moral responsibility for potential deaths from COVID-19 on vaccination opponents (*"They don't understand that if they don't die themselves, they will infect someone who might, and it will be their fault"; "By the way, I wanted to ask if there is a criminal offense for those who persuade someone not to get vaccinated. Are vaccination opponents aware of their responsibility for real people's deaths?");*

4. Appeal to the authority (*"The article from the scientific community raised many questions, and the Gamaleya Research Institute has answered all of them"; "The Gamaleya Research Institute is a highly authoritative vaccine manufacturer"; "You have a higher education and access to articles in The Lancet and articles from*

Argentina – I don't really understand. The scientific approach is there"; "I understand that it's hard to believe in TV propaganda, but if someone's words are confirmed by scientific articles and statistics, then it probably sounds like the truth");

5. Appeal to fear/prejudice (*"I don't think that your grandparents would like the extinction of the country, but everything is heading towards this");*

6. Exaggeration or minimization (*"Did he die? It would be worse if he had gotten the vaccine!"; "There are incompetent people working at the Gamaleya Research Institute").*

It should be added that in the UrFU chat, only vaccination supporters called for the disabling / blocking of representatives from the opposite side (*"Someone disconnect her already"; "You could just block her"; "I would generally exclude people who refuse to get vaccinated from the university").*

1.4 Propaganda methods of vaccination opponents

But there were definitely propaganda methods among vaccination opponents too. We divided them into two groups: statements against the vaccine itself and statements against compulsory vaccination.

Propaganda methods against the vaccine itself:

1. Appeal to fear/prejudice:

– Stating potential side effects as guaranteed (*"Give a normal vaccine, not this stuffy Sputnik V, which makes you feel worse than when you get sick with COVID-19"; "I'm not forcing others to risk their lives for me, but for some reason, they're asking me to risk mine for their sake");*

– Declaring a vaccine as contamination (*"A vaccine is an infection, and not everyone can tolerate it easily");*

– Sharing negative experiences (*"After getting vaccinated yesterday, I felt like a frying pan on fire"; "It's risky to get it, especially since a couple of my friends died after getting vaccinated");*

2. Black-and-white fallacy (*"Did you not try to play sports and eat healthy? I assure you, all of this is much more effective! And how did humanity survive without vaccinations?");*

3. Doubt (*"History is being rewritten, but we all rely on some kind of research, medicine, and the information we are provided").*

4. Name calling or labeling (*"Discrimination against sensible people"; "There has always been deception of the people, for a conscious person is dangerous").*

Propaganda methods against compulsory vaccination:

1. Name calling or labeling:

– Calling compulsory vaccination an experiment or a test (*"I will not allow experiments on my body"; "This vaccine has not yet passed the third stage of*

testing which ends in December 2022. Therefore, this is an experimental vaccine, and everyone who gets it is a participant in the experiment”; “So only the remote consequences are being tested. On us”; “Voluntary-compulsory experiments on us”; “I don’t want to test it on myself”).

2. Whataboutism:

– Paraphrasing representatives of the opposite side (“Oh! Soft persuasion has arrived. Like, ‘Why are you outraged? Authorities are still fair to you. Appreciate it!’”);

– Bringing to the point of absurdity and sarcasm, allegedly on behalf of representatives of the opposite side (“Rural people have flooded the city. Yekaterinburg is not elastic. Let them work for science, test a vaccine for normal people from good families”; “If the teachers do not want to be vaccinated, they are not allowed to teach (we cannot endanger the population!). They will be replaced by others, more flexible. If students do not want to be vaccinated, they will be kicked out of the university. Everything is voluntary. Everyone has a choice”);

3. Appeal to authority (“A physician I know from the pre-COVID-19 era explained to me the essence of vaccination”; “An actor with an adequate view and position is a hero of our time!”; “This contradicts the opinions of doctors whom I trust”);

4. Black-and-white fallacy (“We are citizens, not cattle”);

5. Appeal to fear / prejudice (“They will bring people to rallies and single pickets. Or some student will go on a hunger strike, sitting in a tent near the dormitory and become a TV star. Can’t they see that such explicit enforcement only angers people and leads to the opposite effect?”; “Phases and are not over yet. They plan to vaccinate children by autumn”);

6. Doubt (“It usually takes - years to create a vaccine, yet they did it in just months”).

Discussion

The issue of vaccination continues to be highly debated. Governments around the world are struggling to persuade people to participate in vaccination campaigns (Bullock, Lane, & Shults, 2022; Loucif, 2022), using various incentives, including monetary rewards (Iyer, Nandur, & Soberman, 2022). As practice and current research show, the key issue here is trust in the government (Van Oost, Yzerbyt, Schmitz et al., 2022; Aslanov, & Kotov, 2022), since not all medical experts have a common and unambiguous position regarding vaccination, and not all of them are vaccinated (Huang, Gilkey, Thompson et al., 2022).

Many people refuse to be vaccinated against COVID-19 not only because of the speed of its creation (Orlova, Fedulaev, Filatova, & Orlova, 2020), but also due to insufficient or, conversely, excessive awareness resulting from various persistent propagandists and manipulators.

Some subjects of information activity, clearly aware of the influence of the media and social networks, unequivocally supported vaccination, calling its propaganda “educational work” and considered the anti-vaccination movement “bewildering”. Although, of course, there were others, no less persistently, proving the opposite. But both sides did not consider the participants in this discussion equal.

Thus, it would be strange to expect equal and respectful discussion from students when representatives of the scientific community do not follow such a path themselves. For example, some researchers openly call the position of vaccination opponents flawed, providing only “obscurantist” theories as arguments (such as chipping or sterilization of the population). They also mention numerous stories about non-vaccinated people dying from diseases (Glasper, 2021). While belief in the COVID-19 conspiracy theory can have severe consequences, it is essential to understand and study this phenomenon (Van Mulukom, Pummerer, Alper et al., 2022). At the same time, it must be admitted that there are negative examples of the consequences of vaccination in world history. The author of a study on this topic correctly notes that building trust in vaccines is more relevant than ever. The author wrote this in 2017 (Weigmann, 2017), but now this problem is even more urgent.

It should be noted that vaccination is supported by the authorities of all countries. Therefore, supporters of vaccination also propose strict penalties for anti-vaccination propaganda (Day, 2020; Gunai, 2019), indicating that they are taking more serious measures than simply calling on students to block opponents.

However, as long as vaccination remains officially voluntary, it is often promoted through internet propaganda. At the same time, the tendency of people to conform to social consensus, their desire to “be like everyone else,” and not stand out from the crowd is an important propaganda factor. The overwhelming majority of people are conscious or unconscious conformists who prefer to be on the same side as the majority. Therefore, one of the tactics of propagandists is the “fabrication of consent,” when many people support each other with likes, reposts, and positive comments to create the impression of mass support for an opinion (Solovey⁵, 2018). We would venture to suggest that this is precisely why the majority of our respondents felt there was much more propaganda from

⁵ Declared a foreign agent in the Russian Federation.

vaccination supporters. It was towards the end of the chat discussion, when the survey was conducted, that vaccination supporters became very active, and simply outnumbered the opponents in the chat.

As a limitation that characterizes the results of the study as indicative to a certain extent, one should mention the fact that the student chat chosen for analysis is a unique platform with its own peculiar characteristics. Therefore, generalizing conclusions should be made with caution and adjusted for the age and social status of the respondents. At the same time, this choice is also due to several advantages we mentioned earlier and reflects the viewpoint of the young digital generation, which is also valuable.

At the end of the discussed questions, we would like to note that 89.1% of our respondents indicated that their opinion regarding vaccination did not change despite the messages in the UrFU chat. In total, 8.7% stated that they hesitated as a result of some remarks, and 2.2% admitted that they changed their position and decided to be vaccinated against COVID-19. Such a result is quite logical, as only a small number of people are able to admit that they are influenced by propaganda. However, if in reality the majority were so resistant to propaganda, it would have become a thing of the past a long time ago.

Conclusion

In conclusion, it should be noted that the main value of modern research (including ours) lies in capturing this global discourse on the topic of vaccination and propaganda (both “for” and “against”), analyzing the methods of propaganda and manipulative influence, based on our standpoint in the current period of time. It seems that after COVID-19 becomes history, it will be necessary to re-analyze not only the collected data but also the researchers’ evaluations.

Thus, we have identified several popular propaganda methods used in the user-generated content, such as name-calling or labeling; whataboutism; causal oversimplification; appeal to authority; appeal to fear / prejudice; exaggeration or minimization; black-and-white fallacy; and doubt. Interestingly, most of these methods are used by both sides of this dispute.

At present, we can state that the issue of vaccination is extremely urgent and really requires public trust in vaccines. In order to build such trust, an honest and open discussion among professionals who hold different views is necessary. Research and public awareness are beneficial when different views are included in engagement activities. This enriches our understanding of society’s response to health issues such as vaccination. The transition to online interaction as a

result of the pandemic may open up opportunities for expanding the geography of interaction, but as researchers agree, it is also necessary to take into account new barriers created exclusively by the online world, such as the fact that not everyone is included for one reason or another (Farrell, & Wilkinson, 2022). Blocking or criminalizing someone's opinion will not add any credibility to the "winners" and will only provoke a negative reaction, as our survey has shown through a specific sampling of respondents.

In this regard, comments from our survey such as "I only see insults to each other" and "I had a feeling for a long time that everyone does not say everything they want to, even if they sincerely believe in their position" are very illustrative. Obviously, all people, including participants in the UrFU chat that we studied, want an open scientific discussion but are often confronted with one-sided statements or propaganda. In our opinion, such discussion can become the main countermeasure against possible destructive content of social networks.

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