THE IMPACT OF THE PANDEMIC ON ONLINE COMMUNICATION: TRANSFORMING SOCIAL MODELS OF COMMUNICATIVE BEHAVIOR

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INTRODUCTION

Today it is significant to gain information that may be interpreted in terms of linguistics and psychology. Simultaneously, society is being manipulated. Indirect implicit manipulative techniques are considered to be imposed on users on social networks. First of all, the discussion is about the concept of language manipulation within communication, which can be expressed in both implicit and explicit ways.

The language manipulation[1] is understood as a range of linguistic features and instructions for its use which aim at implicit impact on the social community user[2]. Manipulation occurs when the interlocutor cannot recognize the intentions of an unknown speaker during a real-time conversation. This is mainly a negative social and psychological phenomenon, as it has a detrimental effect on people and society. Nevertheless, it should be borne in mind that this form of communicative strategy is defined as the most inherent factor in conflict theories and in everyday life[3].

Communication over the Internet is an integral part of human interaction, especially in today's pandemic environment. It should be noted that the establishment of relations between interlocutors involves long stages of communication. The various social platforms on the World Wide Web have a common goal – to facilitate the dissemination and exchange of information as needed. It is for this reason that models of communication are distinguished. They simplify the communicative process in such a way as to provide visual information for the

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[1] Akopova S. Linguistic manipulation: definition and types. International Journal of Cognitive Research in science, engineering and education. 2013. Vol. 1. No. 2. P. 78–81.

[2] David M. Language, Power and Manipulation: The use of rhetoric in maintaining political influence. Frontiers of Language and Teaching. 2014. Vol. 5. P. 164–165.

[3] Деркаченко Я. Соціальні мережі як середовище для технологій маніпулятивного впливу. Сучасний захист інформації. 2016. № 1. С. 51–59.

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presentation of internal cognitive and perceptual patterns of behavior[4]. The 'interaction' of linguistic manipulative conflict mode of Internet communication during pandemic with establishing patterns of social communicative behavior allows to determine cognitive and perceptual as well as behavioral models of communication.

1. The problem's prerequisites emergence
and the problem's formulation

Despite the fact that linguistic communication within the social community is like a discussion, certain conflict situations remain unresolved. In order for the most contradictory and manipulative communicative statements to be expressed, we should adhere to the respectful and tolerant networking principles of the communication process.

Cognitive and behavioral principles[5] date back to the development of discussions about individual cognition. Cognitive processes play a significant role in conjuring up emotions and reactions to vital events. All cognitive processes that accompany the following communicative models involve such basic stages as encoding information as well as decoding it[6]. They are the basis for the formation of semantic fields[7] (under semantic fields we mean semantic groups) of the cognitive model to denote statements to be singled out by linguistic markers. The latter reveal the obvious or external (explicit) and hidden or internal (implicit) nature of the statement.

Based on the analysis of language features inherent in a particular type of speech, we can interpret interpersonal language intentions, identify both negative and positive emotional states, as well as identify common cognitive processes inherent in a language community. Such an approach can be applied to any online platform to identify

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[4] Benjamins J. Corpus approaches to language, thought and communication. 2021. 163 p.

[5] Käll A., Shafran R., Lindegaard T., Bennett S., Cooper Z., Coughtrey A., & Andersson G. A common elements approach to the development of a modular cognitive behavioral theory for chronic loneliness. *Journal of Consulting and Clinical Psychology*. 2020. Vol. 88, Issue 3. P. 269–282. URL: https://doi.org/10.1037/ccp000045.

[6] Malcolm N. 7. The Myth of Cognitive Processes and Structures. Thought and Knowledge: Essays, Ithaca, NY: Cornell University Press. 2019. P. 159–169. URL: https://doi.org/10.7591/9781501738760-008.

[7] Lenci A., Lebani G., Passaro L. The emotions of abstract words: a distributional semantic analysis. Abstract Concepts: structure, processing and modeling. Topics in Cognitive Science. 2018. P. 550–572. URL: https://doi.org/10.1111/tops.12335.

communicative, cognitive and perceptual, manipulative models of human behavior, which determines the relevance of the study. The relation between the author's work and important scientific and practical tasks is to discover existing communication models and create our own communicative and cognitive model to identify the linguistic and semantic features of online communication during pandemic and vaccination processes.

2. The analysis of existing methods for solving the problem and formulating a task for the optimal technique development

Social networks contribute to a long process of communication, which leads to research based on linguistic and communicative approaches to models of human consciousness. The degree of interrelation between the inner personal world and both external and internal language processes is considered by various scientific studies in the field of communicative linguistics[8], psycholinguistics[9] as well as social linguistics[10].

As social networking platforms[11] are referred to as a source of information, an exchange channel, an instant connection tool, we are dealing with discussions of the latest news. The conversation can take the form of monologues as well as dialogues. Online communities play a crucial role in disseminating and sharing information. The concept of the Internet community is considered a trigger for the creation of an authoritative social network. This concept is important because it claims to be interdisciplinary, positioning itself as any form of ability to express speech[12]. Among the diversity of online communities, the Reddit social

[8] Murray S.E., Starr W.B. The structure of communicative acts. Linguistics and Philosophy. 2021. Volume 44. P. 425–474. URL: https://doi.org/10.1007/s10988-019-09289-0.

[9] Blumenthal A. An Historical View Of Psycholinguistics. Part 2. Berlin, Boston: De Gruyter Mouton. 2019. P. 1105-1134. https://doi.org/10.1515/9783110821659-016.

[10] Benson P. Ways of seeing: The individual and the social in applied linguistics research methodologies. Language Teaching. 2019. Volume 52, Isuue 1, 60-70. doi:10.1017/S0261444817000234.

[11] Mazzoleni G., Bracciale R. Socially mediated populism: the communicative strategies of political leaders on Facebook. Palgrave Communications. 2018. Volume 4, Issue 50. https://doi.org/10.1057/s41599-018-0104-x.

[12] Noske-Turner J. Communicative Development. In: Tacchi J., Tufte T. (eds) Communicating for Change. Palgrave Studies in Communication for Social Change. Palgrave Macmillan, Cham. 2020. 192 p. https://doi.org/10.1007/978-3-030-42513-54.

chat network was chosen as a research basis[13]. It is called a public network because it includes a wide range of participants who share a huge flow of data. Reddit is characterized by a large number of tapes: from Internet sections with popular publications to Reddit live. The Reddit social network can combine both psycholinguistic and social approaches to the accumulation of patterns in terms of communication on the Internet. The issue of establishing psycholinguistic and social, mostly manipulative and communicative and contradictory features in the social environment Reddit has recently gained popularity in communicative research[14].

The main language unit in Reddit social networks is a text fragment of comments. It has an informative meaning regardless of the context. The linguistic influence between different types of comments evokes diverse approaches to exploration. Social and economic as well as political development, sharp media emergence have determined the need for new means of persuasion with the implementation of psychological and emotional impact[15] on the listener. In modern linguistic research, language influences the interlocutor, thus regulating personal relationships, mental state and behavior[16]. Verbal manipulation can be a complex, multi-stage procedure (as in the case of advocacy and advertising campaigns), and the only relatively simple act of influencing the recipient in interpersonal communication.

Linguistic manipulation is the verbal address of the speaker, which regulates the behavior of the interlocutor through language, encouraging him to enter into a conversation, improve it or supplement it, if necessary. The speaker can either stimulate a relevant verbal or

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[13] Social online community. URL: https://www.reddit.com/.

[14] Unkel J., Kümpel A. (A)synchronous communication about TV series on social media: a multi-method investigation of Reddit discussions. Computational Approaches to Media Entertainment Research. 2020. Vol. 8, No 3. P. 180–190.

[15] Babelyuk O., Koliasa O., Lopushanskyy V., Smaglii V., Yukhymets S. Psychological Difficulties during the Covid Lockdown: Video in Blended Digital Teaching Language, Literature, and Culture. Arab World English Journal (AWEJ). Special Issue on Covid 19 Challenges. 2021. P. 172-182. DOI: https://dx.doi.org/10.24093/awej/covid.13.

[16] Sharma E., Choundhury M. Mental Health Support and its Relationship to Linguistic Accommodation in Online Communities. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. Association for Computing Machinery, New York, NY, USA. 2018. Paper 641. P. 1–13. DOI: https://doi.org/10.1145/3173574.3174215.

nonverbal response, or exert an indirect influence to form certain emotions and perceptions necessary for the speaker[17].

One of the main ways to establish contact, online communication, can be manifested in various communication models[18]. The communicative model of information transfer (linear)[19] involves a communicative process in one direction, i.e., the interlocutor sends messages to another person for a specific purpose. This model takes into account the information encoded by the sender. The content of information is inherent in the value, while the recipient is perceived as appropriate. This communicative model is suitable for ads, general information posts in online communities to reach the audience.

The interactive communication model[20] is more relevant to this research, as it covers the communication processes between sender and receiver. Here one should pay attention to the information which is to be disseminated. Moreover, all additional processes are involved (reactions, emotions, communicative environment adaptation, feedback, etc.). Response messages are relevant in terms of online interaction, as feedback processes facilitate the posting of comments, diagrams for discussions and real-time conversations. In addition to the positive aspects of the model, one may find disadvantages: some messages may remain unread due to their significant amount.

Moreover, there is no need to emphasize the nature of communication on the Internet, even if the psychological context plays an important role in identifying positive and negative emotions, which is characteristic of vital cognitive processes. The theory of emotional processing is the basis of such psycholinguistic communicative states, when people try to escape from reality to avoid a common threat or danger. Scientists define

[17] Kubasova U. & Murray G. & Braley Mck. Analyzing Verbal and Nonverbal Features for Predicting Group Performance. 2019. P. 1896–1900. DOI 10.21437/ Interspeech.2019-3062.

[18] Dowell N.M.M., Nixon T.M. & Graesser A. Group communication analysis: A computational linguistics approach for detecting sociocognitive roles in multiparty interactions. Behavior Research Methods. 2019. Volume 51. P. 1007–1041. https://doi.org/10.3758/s13428-018-1102-z.

[19] Huerta Th., Hawkins J.B., Brownstein J.S. & Hswen Y. Exploring discussions of health and risk and public sentiment in Massachusetts during COVID-19 pandemic mandate implementation: A Twitter analysis. SSM - population health. 2021. Volume 15. P. 100851. https://doi.org/10.1016/j.ssmph.2021.100851.

[20] Capriotti P. & Zeler I. . Comparing Facebook as an interactive communication tool for companies in LatAm and worldwide. Communication & Society. 2020. Volume 33, Issue 3. P. 119–136. https://doi.org/10.15581/003.33.3.119-136.

the emotional components of communicative interaction as the activation and modification of the memory structure that underlies fear[21].

In addition to physical and psychological nature of the transactive communicative model[22], it has a reference to cultural consequences and social characteristics. This involves interactive processes from the previous model for community design, which is important for our online platforms research. People can interact, forming their social, cultural relationships, based on the norms of communication. There is an issue of language control of the quality of sent and received information[23]. Each context is important in this model, because not only the message is of significance, but also the purpose of the message, the role of the sender and recipient, the impact of the message on the social community and communication on the Internet.

The latter two models mentioned above will be used in our further research as the basis for the Reddit social networking communication model. The combination of features of existing models of communication will solve part of the general problem of linguistic and semantic approach to the communicative and cognitive and behavioral model of communication, which is the subject of the paper. These models focus on the concept of cognitive conceptualization[24], which assumes that some individuals have a high risk of danger during communication, especially in a pandemic.

The aim of the article is to, firstly, identify linguistic and communicative features in Reddit posts, as well as to find out the nature of linguistic implementation of cognitive processes associated with negative and positive consequences. The next step is to identify explicitness in comments on online discussions using linguistic markers for textual analysis of Reddit comments.

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[21] Sailunaz K., Dhaliwal M., Rokne J. et al. Emotion detection from text and speech: a survey. Social Network Analysis and Mining. 2018. Volume 8, Issue 28. https://doi.org/10.1007/s13278-018-0505-2.

[22] Hood A. Communication in Theory and Research on Transactive memory Systems: a literature overview. Remembering through Conversations. Topics in Cognitive Science. 2019. Vol. 11, Issue 4. P. 644–667.

[23] Albota S., Peleshchyshyn A. Requirements for the Linguistic Quality Control of Wikipedia. Proceedings of the 14th. International Scientific and Technical Conference on Computer Sciences and Information Technologies. (CSIT). 2019. P. 16–19. DOI: 10.1109/STC-CSIT.2019.8929771.

[24] Buck R., Graham B., Allred R.J., Hancock R. Nonverbal Receiving Ability as Emotional and Cognitive Empathy: Conceptualization and Measurement. In: Sternberg R., Kostić A. (eds) Social Intelligence and Nonverbal Communication. Palgrave Macmillan, Cham. 2020. P. 21–49. https://doi.org/10.1007/978-3-030-34964-62.

The objectives of the article are to compare the results of interpretation with the results performed automatically using a text analysis software program that detects linguistic and psychological markers and patterns previously used in other articles[25] and proved its analytical effectiveness, as well as the application of conflicting conflict resolution strategies to the language material of the section with comments from the Internet community.

And, secondly, the paper aims at conducting a linguistic-semantic analysis of news feeds on the online platform Reddit on the status of vaccination, applying linguistic markers to the most commented publications in terms of relevant news. Language analysis will help to create cognitive and perceptual and behavioral models of communication during the situation with the Covid-19 pandemic, which determines the general scientific significance of the paper.

Within the mentioned author's papers, the concept of the subheading of the news feed topic was discovered. This concept belongs to the online community, associated with the idea of posting and commenting on information in various fields of knowledge. In this paper, the subheadings of the news feed are used to highlight messages from Reddit users who are both concerned about and approve of the vaccination process.

The use of the Reddit social network is relevant, as recently commented news can be traced first[26], 929 comments have a reference to the main news feeds, but each of them contains its own section, which was thoroughly interpreted during the research. Furthermore, revealed exclamations help linguists assess the extent of emotionality with which the upward trend is and complement cognitive processes in that context. In online news discussions, the most important thing is to broaden the textual scope of vaccination perception around the world and explore its semantic, manipulative characteristics in the psycholinguistic, cognitive and sociolinguistic spheres, which deter-mines the novelty of the article.

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[25] Albota S. Linguistic and Psychological Features of the Reddit News Post. Proceedings of the 15th. International Scientific and Technical Conference on Computer Sciences a.d Information Technologies. (CSIT). 2020. P. 295–299. DOI: 10.1109/CSIT49958.2020.9321991/

[26] Discovered comments of the news feed. URL: https://www.reddit.com/r/Coronavirus/comments/sd7egp/covid19_infection_before_or_after_vaccination/.

3. The linguistic features
of the ongoing pandemic internet communication

First of all, it is worth mentioning that we consider all contradictory statements selected for analysis automatically manipulative. It is substantiated by the fact that any linguistic influence exerted through the statements of users of the social network Reddit causes covert or direct type of manipulation. When analyzing textual fragments in the comments, some linguistic markers are regarded, which mark the statements as contradictory and manipulative.

In Reddit social media the Coronavirus theme[27] has been chosen for the study according to the relating vaccine keywords which are the most commented. Interpreting a number of identified commentary posts on this topic, we highlight the most common linguistic markers with manipulative and contradictory consequences according to the following social cognitive models:

Mental viral and vaccine effects;

The spread of viral and vaccine worldwide.

Such models are relevant to the results of contextual analysis, which reveals the implicitness and explicitness of the discussion (mostly in sentences), as evidenced by author's previous papers mentioned above.

The cognitive model entitled Mental Viral and Vaccine Effects includes social and communicative manipulative psycholinguistic material on commentary on how coronavirus and vaccination affect society at large. There are discussions on deep psychological issues, hopes and predictions for a pandemic, as well as chats with everyday discussions.

Another cognitive model, The spread of viral and vaccine worldwide, covers manipulative statistics and sites of virus spread with gruesome facts and discussions on disease prevention and action. The emphasis here is mainly on the current epidemic situation.

When we start conducting textual analysis, we distinguish semantic groups according to the previous headlines, which are grouped according to those introduced by the software tool measuring emotional expression of the statements in social media[28]. In addition, we apply conflict resolution strategies to the language material of the section with comments in the online community about the coronavirus. Here is the

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[27] The chosen Covid-theme. URL: https://www.reddit.com/r/Coronavirus/comments/ql8dd6/how_covax_failed_on_its_promise_to_vaccinate_the/

[28] LIWC. URL: http://liwc.wpengine.com/

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first semantic group with the results highlighted by linguistic markers that express:

negatively expressed statements:

crowds being made crazily mad (psychologically emotional problems), (strategy of concession and avoidance);

purely wistful idealized miracle in the society (psychologically emotional problems), (avoidance strategy);

glimpsing your own reality (psychologically emotional problems), (avoidance strategy);

nothing really matters here (psychologically emotional problems);

what is a real state of the issue, what is left is just to accept the truth – viral mechanism has been induced (negative prediction), (cooperation strategy);

being taken out of the crowds mass viral phrenic states of mind (psychologically emotional problems), (competition strategy);

the world has never ever faced such an issue, (negative prediction), (avoidance strategy);

if it was a kinda of not such a hurdle (negative prediction), (avoidance strategy);

positively expressed statements:

everything will get better sooner or later (hopes for the best), (cooperation strategy);

look on the bright side one time (advice), (cooperation strategy);

how about breaking down tonight blissfully (hope for the best), (strategy of cooperation);

kept words to be well and never give up at least now (hopes for better), (cooperation strategy);

everything will be over until everyone gets vaccinated (hopes for better state), (cooperation strategy);

we can try riding over the obstacles this way (hope for the best), (cooperation strategy);

the more positive you think, the better mood your immune system gains (hope for the best), (cooperation strategy);

virus will retreat, it's not here forever (hope for the best), (strategy of cooperation);

evolved cognitively expressed states:

that was all about this issue discussed (instability), (avoidance strategy);

crap it damn it (instability), (avoidance strategy);

it is obligatory to behave accordingly (instability), (cooperation strategy);

it is not a big deal for them to get rid of all this and stick to another mind (instability), (strategy of avoidance);

what if we could predict what will occur from time to time (inevitability), (strategy of concession).

In total calculations, 253 text fragments of the first cognitive model with the commentary section have been analyzed by interpretation, but above they are presented in part to illustrate the process of semantic textual analysis in general. According to the program, we find that there are equal amounts of positive and negative emotions in the comments. It can be argued that such a topic Reddit is neither positive nor negative, these are examples of fixing mental processes aimed at bridging the gap between long-term stagnation of the pandemic and finding ways to eliminate it. Discussions on the subject of coronavirus in Reddit were analyzed with the involvement of the actual database of statements, and the validity of the conclusions was confirmed by selected linguistic markers.

The next cognitive model with commentary posts is marked with the following linguistic markers that express:

negatively expressed statements:

can easily be contracted, even if it is the worst viral form (fear), (concession strategy, avoidance strategy);

it's impossible to endure such a feeling (fear), (avoidance strategy);

making them take it as it is but indeed no recovery (fear), (strategy of avoidance);

there is no willingness to confront to fight to be strong (fear), (strategy of avoidance);

positively expressed statements:

sooner or later the viral condition will be dealt (hopes for the best), (cooperation strategy);

whatever happens virus we will overcome (hopes for the best), (cooperation strategy);

working out the scheme to inject population (hope for the best), (cooperation strategy);

some part of the world is a leader in vaccination queues, (cooperation strategy);

heard that most of those being vaccinated now breathe easily and even are cheerfully boosted (hope for the best), (cooperation strategy);

we will definitely face the victory over that (hope for the best), (cooperation strategy);

can't wait this all be gone away (hope for the best), (cooperation strategy);

smooth process with being vaccinated no side effects (hopes for the best), (cooperation strategy);

evolved cognitively expressed states:

what if there is some good way to avoid the viral situation (action), (cooperation strategy);

after that new even bigger challenges and issues will arise (actions), (cooperation strategy);

we must adhere to the rules government imposes (actions), (cooperation strategy).

What concerns this model, the same amount of 253 text fragments of comments have been analyzed by interpretation, but above they are presented in part to illustrate the process of semantic text analysis in general. Here we prove with an automatic program report that positive emotions prevail in the comments, as the linguistic markers used helped to determine the semantic color of hope for normal living conditions associated with vaccination.

In general, both selected cognitive models are manipulative and communicative, contradictory, as it was found linguistically, mostly semantically, the way of interpretation, and more explicit than implicit. All the selected semantic fields (mental problems, negative predictions, hopes for the future, advice, instability, inevitable processes, fear and action) are also contradictory to the manipulative statements of users and the media. The semantic group with positive emotions prevails, because we strive for long and healthy life in the future more than positive predictions of vaccination against viruses. Linguistic negativity is more pronounced through personal health experiences than manipulative personal anxiety states. Concerning cognitivism, the semantics of the first cognitive model – Mental viral and vaccine effects – is linguistically marked by warnings, threats, and manipulations of consciousness, and in the second cognitive model – The spread of viral and vaccine worldwide – by manipulations regarding the non-adoption of action plans for vaccination of the population.

4. The linguistic and semantic peculiarities
of the ongoing vaccination communicative models

News feeds are being analyzed and interpreted using linguistic and semantic analysis, taking into account the manipulative, contextual and semantic features of the language material. The analysis revealed two cognitive and perceptual and behavioral models of communication – The general attitude to vaccination attempts and the impact of vaccination on the population. The first – The general attitude to vaccination attempts – contains all possible statements about understanding the individuality of the vaccination process, and the second – The impact of vaccination on the population – more substantiated statements, facts, personal experience of vaccination or reasons to be for or against. Consider the semantic groups that are selected according to the semantic analysis of the comments section. After each example, linguistic markers are given to indicate the explicit or implicit meaning of the statement.

Lingual and semantic analysis of the first cognitive and perceptual and behavioral model of communication – The general attitude to vaccination attempts, has been linguistically marked the following:

approval of vaccination:

person was rescued thanks to the vaccination attempt (explication of hope for the future);

thrilling (explication of hope for a promising future);

making my mind up checking health if necessary (explication of hope for the future);

let's pray for the best years to come (explication of hope for a promising future);

treat yourself the best and reward yourself as much as you can (implication of self-care);

I must say he reassured me that he didn't catch virus (explication of positive symptoms);

crappy things happen and work out (vulgarism with implicit positive shift);

I must admit that it won't be as hard as you've planned, no temperature as COVID claims (explication of positive symptoms);

looks like delirium (explication of hope for the future);

Hurray! (exclamation, explication of hope for a promising future).

Attention is focused on the process of positive perception of vaccination with exaltation in the form of exclamations, expressive and

emotional states of expression. The process of semantization is more obvious (predominant explications) than hidden (fewer implications). Frequent use of the 1st person (use I is omitted in the sample database) confirms the development of more personal comments in online discussions, rather than those related to collective experience.

non-acceptance of vaccination:

you are ill this is immune problem (explication of negative health conditions);

overall feeling dizzy and body shivering (explication of negative health conditions);

we've got a precaution not to prescribe this (implication of future threat);

supposedly they will put him on the apparatus (explication of a future threat);

I was afraid I might have been dead (explication of mortal threat);

they couldn't make a difference between those being vaccinated against COVID and those against simple fever (implication of low vaccine efficacy);

what is the efficacy of these if you are still down (implication of low medical efficacy of vaccines);

I don't care whether I'm infected or not (implication of indifference to health);

you think all get tests so they know they're infected (implication of indifference to health).

Among negativity, implicit meanings of the news post linguistic markers prevail. Comments covering internal senses of treating personal poor health conditions were discussed in most cases from the first person. Among the negatives, the hidden meanings of linguistic markers of posts in news feeds predominate. The use of the first person in the comments, which covers internal feelings about the treatment of ill health, predominates.

cognitive processes regarding the attitude to vaccination:

can't get what's the reason of getting tested if you've already got vaccinated (explication of misunderstanding of the medical process);

why they provide COVID tests if people got vaccines; violation of the injection rules – no more tests if you are vaccinated fully (explication of medical advice);

those workers producing tests may use them for free (implication of health benefits);

this process will definitely ruin all the plans (implication of unexpected events);

what is a vaccine used for? No nice reviews, people just waste time, nothing hinders the disease, the symptoms remain the same (explication of medical conclusions);

if they started the production of vaccines, a range of them will appear soon (explication of medical diversity of vaccines);

boosters differ from preliminary vaccinations, I do agree with you. But I see no perspective just sitting doing nothing and waiting for different types (explication of fear of health);

you're lucky having no diagnosis similar to virus, it is far better (explication of medical conclusions);

we find no proof of any type of vaccine as a disaster (explication of medical conclusions);

whatever mentioned but I stick to the point that vaccination process works (positive emotions + explication of medical perfection);

why I choose to get vaccinated is the desire to feel healthy symptoms (explication of medical conclusions);

have they already admitted it being a big deal (explication of medical opinions);

I must confess you don't have fever or other symptoms that might bother you (explication of medical opinions);

it's not miracle vaccine works (implication of medical conclusions).

Explanations of general assumptions about known facts and personal attitudes to the Covid-19 vaccination process and advice on its treatment were regarded.

As the first part of the cognitive and perceptual and behavioral communication model has been interpreted, the emotional spread of vaccination during communication is generally promising, in rare cases, personal symptoms do not allow vaccination, causing fear of health threats. Regarding manipulative psychological models of communication, dubious allegations about the vaccination process cause a lack of understanding of its effectiveness.

Automatic detection of semantic fields (for counting words and providing concise linguistic information) general attitude to Reddit vaccination statistically confirmed the results of the semantic analysis.

The semantic field of positive emotions is higher in percentage (3.8%) than negative emotions (2.9%), which is confirmed by the obvious acceptance of the emotional spread of vaccination and treatment

as a way to overcome the pandemic. Negative emotions were mostly expressed covertly, raising doubts about the need for vaccination. The largest part (15.3%) has been occupied by the explication of the semantic field of cognitive processes in relation to vaccination, among which various ideas and opinions on a topical topic predominate.

Another cognitive and perceptual and behavioral model of communication – The impact of vaccination on the population – is semantically analyzed with the help of linguistic markers indicating obvious or hidden meaning of the following:

approval of vaccination:

I suppose vaccination will be spread worldwide (explication of the vaccination requirement);

they have become on the verge of medical breakthrough (explication of hope for a promising future);

we strongly hope for this (explication of hope for the future + cognitive process that expresses confidence);

they've already suggested decreasing the number of patients with doubtful symptoms. That sphere will be the heart of breakthrough (explication of medical excellence);

looks like gem (explication of hope for the future);

all negative body symptoms are relieved with the help of the booster (explication of vaccination requirements);

virus has immediately disappeared though the medium of the intake of the vaccine (explication of medical perfection);

nothing is reveled, the test has proved that (explication of hope for a healthy state);

due to vaccination diseases have gone (explication of hope for a healthy state);

after vaccination new life will start again (explication of hope for a healthy state);

it has been already tested that vaccination tremendously reduces contraction (explication of medical excellence + implication of vaccination requirements);

after being vaccinated you have all chances to stay alive and not get infected again (explication of medical excellence + implication of vaccination requirements);

being vaccinated means having one more chance to stay alive (implication of the vaccination requirement);

all the symptoms will be smoothly gone (implication of vaccination requirements);

those vaccinated are more COVID-protected than those who avoid the procedure (explication of medical excellence + implication of vaccination requirements);

I don't know any other ways to save myself (implication of vaccination requirements);

vaccination is the only way out; vaccinate yourself and for sure you will hinder the pandemic (implication of vaccination requirements);

it reduced the COVID rate dramatically: only three of the whole staff (explication of rare cases of Covid-19 after vaccination);

the efficacy of modern vaccines against COVID is thrilling (explication of rare cases of Covid-19 after vaccination);

of course, not all citizens are infected (explication of rare cases of Covid-19 after vaccination);

anyone can catch it but it depends (explication of rare cases of Covid-19 after vaccination);

the treatment has been proved by the doctors (explication of medical excellence + implication of vaccination requirements).

This semantic field is characterized by an increase in explications of positive emotions about the effects of vaccination (5.7%). Note that such obvious linguistic markers as hope for a promising future are inherent in two cognitive models of communication. The reason for this is that the same semantization processes take place before and after vaccination, although in the first case we are dealing with the designation of a reliable treatment process, and later – with greater medical excellence than now.

non-acceptance of vaccination:

whatever the vaccination process is, there will always be a risk for getting infected (explication of imminent pandemic threats);

virus will mutate and new types will emerge (explication of imminent pandemic threats);

vaccination hinders nothing only helps to spread the virus (explication of imminent pandemic threats);

both vaccinated and not vaccinated people will be infected again and again (explication of imminent pandemic threats);

you are the carrier of the virus how you cannot infect other people?! (explication of pandemic mental affect);

contraction is easier than you've ever thought (explication of pandemic mental affect);

the load of the symptoms will enlarge (explication of pandemic mental and physical affect);

no matter whether you were tester or vaccinated – you may get ill again (explication of pandemic mental affect);

there's no probability that vaccination will eliminate COVID (explication of imminent pandemic threats);

immune system may be damaged repeatedly (explication of imminent pandemic threats);

tests are no more effective even after vaccination (explication of imminent pandemic threats).

All examples highlighted from Reddit news feeds on the semantic field of negative emotions are marked only by explicit linguistic markers. Most of them indicate the pessimistic emotional spread of the current pandemic state, which includes one of the main markers of ineffective vaccination.

cognitive processes regarding the attitude to vaccination:

there's an ambiguous belief that new types of viruses will appear and exist in future (explication of doubts about the vaccination process);

slight probability of its still existence for a long time (explication of doubts about the duration of the vaccine);

I couldn't even think that this could be ever possible (explication of the "miracle" of the vaccine);

I wonder how it is possible that it may work out (explication of the "miracle" of the vaccine + positive emotions);

I was wondering why these types of vaccines are so helpful, interesting to try and make sure (explication of doubts about the vaccination process);

is it true that vaccination takes time and all of them work accordingly? (explication of doubts about the vaccination process);

who can prove the efficacy of the vaccine? Was it tested on 100% of people that all the symptoms of COVID are the same that different types of vaccines can deal with??? Who can prove that after that people will recover or stagnate with COVID? Who can prove this?? (explication of doubts about the vaccination process);

it is just a myth that vaccination process will reduce the spread of COVID (explication of doubts about the vaccination process);

it's not a fact that if you're not infected you may not be a spread of the COVID, it is contagious notwithstanding the fact that you are not ill (explication of the situation "guess yourself");

different worlds experiment on types of vaccines, how can it be efficient to try this or that vaccine right away?! (explication of the situation "where the facts");

those who stick not to be vaccinated at all (explication of the situation "where the facts");

this is exactly the reason why I refuse to get vaccinated (explication of doubts about the vaccination process);

all this percentage is a myth comparing to the real figures of disaster (wondering about the vaccination process);

interested in the final amount of people WHO REALLY GOT INFECTED (explication of doubts about the vaccination process);

never expected something similar to your symptoms will happen with me, obviously got infected, it's contagious (explication of the situation "guess yourself");

on the other hand, doctors' opinions vary (explication of the situation "guess yourself");

whoever said what – the more vaccinated, the healthier people become (miracle through the vaccine + positive emotions).

The third semantic field is also characterized by explication of statements. A feature is a combination of positive emotions and questionable thought processes. There is a lot of controversy, but once this successful way of overcoming the virus is recognized, the comments automatically stop. That is why we claim that these cognitive processes have a more positive meaning (17.9%) than the previous ones (15.3%).

The semantic field of positive emotions is higher than that of groups with negative emotions, which is similar to previous results of the cognitive model. This is explained by the fact that today we are dealing with a more favorable emotional spread of vaccination.

Note that the latter model is characterized by exclusively explicit semantic fields. This means that all statements in the news feeds are accurate and clear, all issues are resolved, there is no dispute about the Covid-19 pandemic. The semantic field of cognitive processes differs mainly positively with the meanings of facts and reasoning processes. And today, even if people still suffer from COVID-19 and its other strains, vaccination dramatically proved its efficiency all over the world.

CONCLUSIONS

Thus, the aim of our research was achieved: the linguistic manipulative and communicative nature of text fragments of commentary posts

in the online community Reddit and the contradictory features of the latter was established, interpreted and compared in terms of different social cognitive communicative models.

In addition, contextual, linguistic and interpretive, as well as textual analysis were applied to the comment section within each and every model involved. Regarding textual analysis, semantic groups were selected on the basis of linguistic comments. Semantic groups were analyzed taking into account both implicit and explicit discussions, moreover, they were identified using a software product that detects linguistic markers and encodes and decodes psycholinguistic communicative patterns followed by extended language comments after each thorough analysis.

The theoretical basis of cognitive and perceptual and behavioral models in this paper was used for linguistic and semantic analysis of vaccination news feeds on the Reddit online communication platform.

The results of the analysis were firstly presented semantically to study the nature of expression using explicit and implicit linguistic markers. Subsequently, the results were confirmed by the use of automated software that provides linguistic information and counts words compared to the standard frequency percentage on social networks.

Different cognitive and perceptual and behavioral communicative models were represented. The semantic analysis of the first communicative model – Mental viral and vaccine effects – proved that cognitive processes involving precautions and manipulative warnings dominated, while in the second cognitive model – The spread of viral and vaccine worldwide – manipulative claims concerning not admitting vaccination as a process in general prevailed.

The next one – The general attitude to vaccination attempts – proved to be overwhelmed with more negative communicative and cognitive and perceptual patterns of communication, and, finally, the last model – The impact of vaccination on the population – more positive communicative and cognitive and perceptual patterns such as hope for short-term recovery from contagious COVID-19 and its other strains and symptoms.

Semantic fields and their linguistic markers were compared both interpretatively and statistically. It was substantiated that the situation with the Covid-19 pandemic was semantically stabilized by the vaccination process and there was no tendency to cause further

controversy in the comments to the news feeds on the Reddit online communication platform.

It was also summed up that extended cognitive processes required delicate interpretation of the Reddit statements as almost all linguistic material is ambiguous and controversial as well as manipulative, so the objectives for the linguist was of utmost significance in the paper.

SUMMARY

Today, online social networks and their role in human development face an immense challenge in terms of their relevance in interdisciplinary research. Communicative features to form their integral social model structures involve expertise in sociology, psychology, as well as the study requires computational linguistics skills. The notion of conflict, conflict situation and contradictions are investigated in terms of contact linguistics, sociolinguistics, psycholinguistics, cognitive linguistics.

Based on the language a person uses, it is often enough to judge on his/her intentions, emotional state and dominant cognitive processes. If we talk about social communities and their online communication, textual space is of relevance. Usually, any kind of discussion within social networks has its contradictory nature, as the human being tends to have conflicts while communicating.

Conflicts during conversation may start at its beginning, climax or ending. Even the whole conversation may involve contradictions and arguments. The first and foremost, people should be aware of how to cope with one's sharp opinions, contradictory statements or arrogant nature. We adhere to the point that communicative behavioral patters vary according to the conversational trigger. Although diverse interdisciplinary advances can be faced, our position is to discover social behavioral models of both negativism and positivism in terms of Coronavirus influence on the communication process taking into consideration a mix of linguistic tools and social networking applications.

Accordingly, the aim of the paper is to verbally reveal cognitive processes with their negative and positive implications using linguistic markers within the selected discussion comment sections within the news posts of Reddit social network community and compare them applying a text analysis program detecting linguistic markers and psychological patterns – Linguistic Inquiry and Word Count.

We apply LIWC analysis, both manual and automatic. Additionally, there is a task to explore conflict nature of the comments of Reddit posts in terms of linguistic interpretation regarding crucial conflict resolution strategies. Here we refer the conflict resolution strategies to the news posts and their comments. All the findings have been linguistically analyzed and compared.

When an author of the online community refers to a certain cognitive process explicated in the statements, there is an intention to state expressively the issue arisen, to attract other users to the commenting system of the network.

Nowadays, the most widespread reason why people cause conflict situation during conversation is fruitless dialogues or polylogues having no purpose of speech and which are considered to be unnecessary. If the contradictions are inevitable way within conversation, it is better to discuss the issue with an attempt to solve it immediately. While discussing, people agree on some other important points and will forget about the previous contradictory issues. It is advisory to bear in mind that any beginning of conversation has its positive and negative outcome.

A general methodology and approach to the project is based on discovering conflict nature of human communication within social communities revealing psychological and linguistic features of the latest conversational network posts.

The research novelty is in implementation a flow of communication network and information society, cognitive and computational linguistics, such use of language as pragmatics, sociolinguistics, discourse analysis.

The emphasis is put on the social environment as a means of communication. Social network platforms are claimed to be a medium of immediate information sharing, commenting and posting processes.

The Reddit social community with its extended comment structure has been allocated. The Reddit comments have been marked linguistically, grouped, analyzed and proved statistically using the automatic LWIC program for detecting linguistic markers and psychological patterns of human being.

The linguistic comments followed the allocated groups, and varieties of tables of frequency of response conflict modes of conversations enabling to apprehend the comments' deep structure statistically have been provided. The methodology mentioned is described and implemented in the previous author's papers. The Reddit social network

has been marked as an attempt of modeling and gaining insights into online conversation patterns.

Recent studies concerning Reddit include such interest areas as behavioral attitudes towards community users, models providing boosting processes in terms of comment sections of the online platform, as well as bridging the gap in terms of content relevancy. It has been also discovered that the content emerging at its latest seems to be more attracting and commented. It has been shown that the posts made for the first time are also commented more often than those which appeared later.

These cases refer to the psycholinguistic features, and can be interpreted in the following way: in any situation when it comes to make a right choice, there is a kind of "rule" which triggers only when totally new information (verbal, visual, sensual, perceptual, etc.) emerges and at that same time our brain reacts, it is ready to act. The simple reason – we always seek "fresh" unexpected findings.

The same situation concerns posts in social networks: there is a high probability that those people who have just joined the online community will implicitly comment the latest post and their attention will be attached to the newest image from the top without scrolling down to the bottom of the page, that is why we keep to analyze social behavior within the discussion charts of the latest news posts.

Apart from the above mentioned thorough linguistic analysis, the manipulative social and cognitive communicative models have been considered. The concept of cognitive and perceptual and behavioral model of communication has been introduced in the paper.

For the semantic analysis, the news feeds of the online communication platform Reddit regarding the outcome of the pandemic – vaccination of the population have been selected as well. The separation of language material has been carried out with the help of linguistically obvious (explicit) and hidden (implicit) linguistic markers.

As a result of the analysis, different communicative cognitive and perceptual and behavioral models of online communication during the period of pandemic and vaccination processes have been provided, namely: Mental viral and vaccine effects; The spread of viral and vaccine worldwide; The general attitude to vaccination attempts; The impact of vaccination on the population.

To confirm the results of linguistic and semantic analysis, automatic software for counting words and providing concise linguistic information has been applied.

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