

# Linguistic Traces of Psychological Manipulations in Discussions of Wikipedia Talk Pages

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**Abstract.** The paper deals with the symbiosis of linguistic, psychological and media-text discourse analyses in order to reveal linguistic manipulation in the Wikipedia Talk Page “Media Manipulation”. A variety of manipulative techniques and their linguistic interpretation has been considered. The frequency of occurrence of specific linguistic units has been estimated. The generalized sequence of manipulations concerning the most heated conversation has been provided. The sequence has been represented by 14 oppositions of the most concerned users. Implicit and explicit forms of manipulations using a range of linguistic, media-discourse markers as well as psychological insights and manipulative techniques have been revealed. Linguistic traces of psychological manipulations have been treated as an attempt to formalize the process of manipulative influences.

**Keywords:** Wiki Talk Page, Linguistic Devices, Discourse Marker, Mass Media, Psychological Manipulation, Opposition.

## 1 Introduction

What is worth nowadays – to be aware of accurate, up-to-date information and be able to process it beneficially for you using linguistic and psychological techniques. The easiest way to obtain a certain necessary result is to influence masses. Collective consciousness is subjected to the most primitive forms of behavior, e.g. imitation, replication. They are due to the multilevel adjustment – massive empathy. There are two forms concerning the linguistic impact on the collective consciousness: open and hidden. The last one has gained relevance and popularity over the last decades. The most effective type of hidden impact on public consciousness is linguistic manipulation: manipulation impact is one of the most important mass media functions along with informative, educational and advertising functions. It is a hidden linguistic impact on the recipient, intentionally misinforming it in relation to the idea or content of the speech, performed at three levels: individual, group and mass [1].

## 2 Related Works

While generating a text, those creating manipulation discourse usually prefer the most semantically neutral words. However, even they may perform the role of impact – in an explicit or implicit representation, followed by a variety of discourse markers relevant to discourse analysis, linguistic and psychological techniques [2]. Discourse analysis is used for discovering how people interact using language, as in written form as spoken way; it observes the way how the conversation keeps going engaging a speaker and listener [3]. Within discourse, the conversation context is taken into account. It involves the fact where people are speaking. Moreover, it ranges from a social and cultural framework to body language, images and symbols. We have chosen the rubric “Media Manipulation” in the following Wikipedia Talk Page [10] due to intensification of the impact function, found in modern mass media.

## 3 Methodology and Research

The Wikipedia Talk page entitled “Media manipulation” serves as an example of a constructive dialogue between two users concerned in that branch, judging from the nature of their statements. The first striking mechanism while analyzing discussion, utterances, statements, etc. is their psychological perception and further linguistic interpretation. The aim of the paper is using the basic NLP techniques mentioned in [4-6] to provide a thorough linguistic discourse analysis, psychological analysis and analysis of media-texts of the above article concerning the media manipulation insights as one of the most tackling issues in linguistic manipulation topics.

The synergy of the methods of textual and discourse-analysis [7, 8], psychological analysis and analysis of media texts [9] allows to reveal implicit or explicit, i.e. hidden or open forms of manipulation using the process of linguistic realization:

The following analysis is represented in a narrative way as the interpretation method of discourse analysis is a paramount one when dealing with a textual research. There are seven sections in the Wiki talk page under the rubric “Media Manipulation”. The most heated discussion is the fifth section concerning manipulation between two users *Andrewaskew* and *Korny O’Near*, dialogues of which we divide into 14 Oppositions (Table 1), as most of the time they argue: whether the text of the article is manipulative, using rhetoric and rhetorical devices, or is merely opinion-oriented. Here, original-sized quotations are provided, as the topic is related to the theoretical manipulative issues mentioned above. Further sections are neglected as the degree of analysis intense is reduced, although they have been interpreted as well.

Heated discussion is about the agreement on how to reveal manipulation under section “Rhetoric and opinion are not media manipulation”. Here, let us conduct all possible lingual semantic and psychological analyses.

**Opposition 1.** In the beginning of the dialogue between two users *Korny O’Near* and *Andrewaskew*, who are aware of manipulation techniques (as seen from the conversation), there are markers of rough perception of the nature of dialogue: “a bit of a mess”, “puts forward logical misconceptions”, “suggests true and objective

samples”, “samples of speech and thoughts, not manipulation concerning news, radio and television” [10]. Suggestion to deliver more expressive examples of manipulation is followed by discourse marker “I think”, advisory markers “have to be altered or eliminated”, “ought to be concentrated on genuine deceptions”, “aren’t there better examples” [10]. There are some examples, which allow to contrast “expressing his opinion” with “undeniable case of media manipulation”, and “similarly”, “doesn’t seem like media manipulation either” [10] with “expressing its opinion” [10].

Another user contradicts: “Oratory and its tools serve the best samples of media manipulation” [10]. It means that all these discourse markers mentioned above, whether it is an opinion, or justified opinion, i.e. manipulation, tend to reveal media manipulation.

There is a controversial issue concerning “manipulation of media” and “manipulation by media”. The author’s suggestions are explicated in: “want us to entirely focus on”, “have to follow the definitions”, “might, if you were so apt, dispute over a segmentation” [10]. Then follow discourse markers of uncertainty: “IMHO”, “division is not clear enough”, “would become confused”, “would be happy to be proven wrong” [10].

The comment concerning the suggestion to provide more examples is provided with a range of cautious markers: “As to your specific questions”, “Be careful though”, “suffered from too many examples”. Still, there is a helpful suggestion with advisory markers: “wish to improve this page”, “happy to support and assist your efforts”, “let’s make sure we know what we’re working towards” [10].

**Opposition 2.** The reaction of the other user is triggered with a discourse marker “well”, probable explanation of “specific examples” of manipulation – “could concentrate on one, as greater part of samples is inclined to the same class” [10] – as the underlined markers define uncertainty, probability.

*Korny O’Near* still offers resistance to *Andrewaskew*, as he repeats his example, extends it, and directly addresses the user with an aim to persuade him in his wrongness: “How can it be”, “create control in terms of news, radio and television”, “as disputed”, “simply someone stating his or her thought” [10].

*Andrewaskew* protests in an explanatory way: “This is an example of”, “a hypothetical example”, convincing in conclusion that rhetoric is “as a thought as an efficient tool”.

**Opposition 3.** *Korny O’Near* advocates his statement using different lingual devices: “It says a lot concerning the announcer, doesn’t it?”, “Couldn’t that be the person is just expressing his or her thoughts?” [10]. For clarifying and justification “not hypothetical - it’s a real quote”.

The opposite opinion still dominates: “not necessary to assume anything”. The repetitiveness “not to assume that” (2 times of occurrence) proves that this is a way of using rhetorical devices in order to put an emphasis on his own assertiveness. What is more, the second time in a row *Andrewaskew* uses an idiom “issue at hand” in order to eliminate the tension of conversation. He, also, assumes the probability of the statement to be just an opinion: “can express thoughts”, “can suppose that a thought is appropriate” [10]. But demonstrative marker “the point is” [10] is used to persuade and advocate his position: “comment reaches controlling edge of speech”, “alters

news and publishing as well as sociology when rough information can't do that" [10]. He uses paraphrasing to make it sound more convincing: "Such linguistic and psychological tool is mentioned within this page" [10]. And turning back to the credibility of the example, the user agrees that *Korny O'Near* has right: "Yes", "am aware", "a true sample with a true citing" [10]. Although he insists on another interpretation of that example: "Although it is considered to be an analytical trend", "specifics matter less than their interpretation" [10].

**Opposition 4.** *Korny O'Near* sounds sharply with unacceptance: "seems rather broad", "any sample of a thought being mentioned in media which wouldn't be taken as the one of it?" [10], as she is trying to find a common way to classify opinion and manipulations. Providing a dull example, the user is trying to provoke *Andrewaskew*: "'He likes cream" means "transmit", contraction or kind of?" [10].

But cool mind and righteousness of another user smoothens the situation: "No, I fail to see", and, at the same time does not lead to its closeness, he instead being assertive: "Can you explain?". His next three questions refer to a bright example of poaching the user to his manner. Using an implicit comparison of manipulation with "a sliding scale" *Andrewaskew* tries to persuade another user in absolute absurd of such a claim. He starts from afar in the second question: "Are there not pieces of communication" and evokes striving for more relevant examples, comparing: "more manipulative than others". Starting with a marker of uncertainty "Perhaps" in the third question he "attacks" another user with all possible ways of paraphrasing the previous question in a more accurate way: "they resemble a sample of speech control" [10].

**Opposition 5.** Obvious discourse marker is noticed in the reply of *Korny O'Near*: "well". Moreover, one of the dodging manipulative techniques – self-denying is applied: "I'm not an expert on "transfer". What is worse, the user unveils his incompetence: "the same inaccuracy as "media manipulation" [10], which is, could not be further analyzed from a scientific point of view. However, we consider such discussion to be exceptionally cognitive and analyze the linguistic and psychological mechanism of one of the discourse manifestations. After all, *Korny O'Near* advocates his statement that: "these are thoughts used to exchange thoughts" [10]. That idiom "at heart" indicates that author became aware of what is transfer in manipulation, and agrees with it: "everything here is about transmitting" [10]. But the discourse marker "anyway" means that the user is not willing to reveal his curiosity in other user's statement but indeed is: "what really matters is considering all text as a manipulation" [10]. Another marker of such a psychological trick is "if so", "if not". To draw a line between manipulative and non-manipulative statements the user puts relevant questions: "Why are some statements manipulation and others not?". All in all, the user concludes to his benefit: "a thought is not a kind of manipulative technique" [10]. All the statements before were just a mere insight into misunderstanding of real manipulative transfers, and, in the end, the user refuses not only to change his mind, but also advocate his unjustified conclusions.

*Andrewaskew* raises four main issues to be handled. By the way, he explains that simple statements cannot be regarded as the manipulative ones: "this is not a sample of transmit", "absence of correlation of thoughts" [10]. Instead, the user justifies what the manipulation transfer is: "would be examples of transfer". The verb "associate" (2

times of occurrence) proves the fact that the user tries to explain the transfer, which is, an association with some other object/subject.

There is an explicit comparison between “inexactitude of a definition” and “unclarity of its constituent members” in the second issue.

Dealing with the third issue the author accepts the importance of the statement that “*all media is manipulation*”, however, he immediately declines that statement: “dispute over consistency of that question” [10] due to the inappropriateness in terms of this discussion. The author’s conclusion is a suggestion: “So Wikipedia should reflect that consensus”.

The discourse marker of uncertainty “In my personal opinion” aims the fourth issue at the objective way of user’s expression. But, *Andrewaskew*, yet again, in the same way as *Korny O’Near* advocates his own opinion. Still, he is not persuaded by another user, just manifests his attitude, interpreting in a range of ways: “if the utterance has something manipulative in it” [10]. There’s a necessity of using the manipulative techniques of the statement, as: “use of technique which defines manipulation”. In addition, he clarifies that it has nothing to do with: “it doesn’t mean that all means are considered in a manipulative way” [10]. Conclusion is followed with a suggestion: “requires more definite explanation”, “sources should be interpreted in a short way” [10] (“need” 2 times of occurrence).

**Opposition 6.** *Korny O’Near* chose the statement to agree with: “That’s right, I agree with you”, “what really matters here”, “should start with that” [10]. Nevertheless, it is followed with disappointing markers: “Unfortunately”, “seems rather limited”. Then, the user accepts his wrongness not directly but in a way of “having weighed the situation”. Moreover, the user tries to interpret his acceptance of the previous user’s statement in his own way, which is, to provide enhancement: “crucial here is purpose - to deceive the scheme” [10]. The expression “to game the system” is used to, anyway, advocate his previous thought. The next statement with the same example that was mentioned above is, yet again, applied to show her righteousness in a way of admitting that it is not a good example.

*Andrewaskew* reacts sharply at such remark: “discussing intentionality is problematic”. In contrast, the user suggests: “we may dispute over speech or speech forms” [10]. The user provides examples of media manipulation definitions from various sources justifying and advocating his statement: “there are differences in terms of that analytical suggestion” [10]. Regarding those definitions, the author stands by his confession that: “it’s not necessary to address in such a strict way to a person” [10].

**Opposition 7.** Finally, *Korny O’Near* agrees (2 times in a row) with the statement that was previously neglected by him: “that’s really a great study”, “those notions interpreted firstly are considered to be the greatest” [10]. He also notices that the second definition is odd: “should be ignored, “should be removed”. Then, he swiftly demonstrates the biggest divergence: “problem of the purpose - if it is needed or the opposite” [10]. He repeats the previous user’s statement: “Requiring intent may be “problematic”, expanding on it with an agreement: “may make our lives as editors harder” [10], and, simultaneously, opposing: “whether there’s only a piece of it - this is good” [10]. Still, his confusing opinion is justified and compared with an example.

After that, he contradicts himself – finds inaccuracies, interprets them in his way: “if to take the first interpreted notion - it could have been written better” [10]. Usually, he advocates his opinion: “the indication of intent is clear”.

*Andrewaskew* agrees with the previous user: “You're right”, “Your analogy to manslaughter makes a lot of sense”. Nevertheless, their divergences still are: “although”, “it isn't required to read about purpose” [10]. He implicitly compares “a single statement” with “the epitome of effective media manipulation”.

**Opposition 8.** Third time in a row *Konry O'Near* agrees with the previous user: “Of course there may be plenty of samples concerning manipulation” [10], but still sounds contradictory: “the question is whether all of them are manipulative?”, “If not, what's the dividing line?” [10]. The discourse marker “again” demonstrates that the user admits his own repetitiveness of the same thing: “it's the issue of intent”. He even repeats another user's agreement with an aim to prove the relevancy of the issue: “and you seem to agree with me”. But such “if-oriented” question generates debate. The examples of “it matters whether they concern emotional states” [10] tend to justify ambiguity of the topic. Then follows an example, which really evokes contradictions: “Is it a form of media manipulation?”.

*Andrewaskew*, in a role of smoothing the conflict, repeats: “Once again”, “reserved people”, “dispute over some things” [10]. Concerning intent, the user repeats his agreement: “yes, I support that it really matters” [10], but disagrees that it can face consequences: “there's a disagreement that here is a limit line” [10]. What is a convincing statement: “if we discuss it further I suppose there's no limit line” [10] to stand by his initial confession: “everything in news and publishing is manipulative technique” (repetitiveness). The statement “there's no willingness to summarize” is used in order not to hurt another user's opinion in case he disagrees and not to sound too self-assured. He justifies his opinion with a definition: “what really matters in speech, to my mind, is a conversation between two people” [10]. We have “to draw the line” - here the user refuses to deal with that issue, as “Limit line, to my mind, is a manipulative technique”, “are there any influences upon the information stream, or there are some implications?” [10]. As for the example provided by the previous user, *Andrewaskew* is convinced in his righteousness that it is: “a little more alarmist and manipulative”, “how we render information defines its manipulative hints”.

**Opposition 9.** *Korny O'Near* expresses his disapproval of the explanation provided by *Andrewaskew*: “the samples above are manipulative, but is it truly right?” [10].

*Andrewaskew* replies accurately: “The real or fake utterance does not mean it is manipulative” [10]. However, expands on the issue: “Even being false the statement may be far better manipulative, just as it hinders another influence” [10]. The user strongly rejects the point of merging manipulation page with media page: “No, I wouldn't support”, “any more than I would support” [10]. The author tries to explain that the subject matter of the Wiki talk page is about manipulation, not about media features in general.

**Opposition 10.** *Korny O'Near* repeats, yet again, *Andrewaskew*'s statement “thought itself attempting to alter a state is considered to be manipulative” [10]. The discourse marker “okay” indicates that the user is willing to conclude some point, and it is not the common thought for both of them: “so we've established that you think”.

Moreover, the user admits that the opinion of another user differs from his one: “valid opinion”, but he also agrees that such a divergence breeds a subject matter of the Wiki talk page: “even both thoughts are negative, it doesn’t mean that they have no sense” [10]. *Korny O’Near* tries to find ways to diminish the statement of *Andrewaskew* in order to trap him with other examples: “Such an utterance as “All ought to eat less” makes sense?”. That user tries to differentiate between “we think that manipulations are used here only in negative way” and “as you mean, they have to do only with altering the meaning”. Such a sharp contrast is provided in order to oppose the different nature of two views on manipulation. Furthermore, the user’s logic leads to the absurdness of the statement of *Andrewaskew*: “In a more general way, if there’s no manipulations, only thoughts, why should we analyze them?”.

*Andrewaskew* in order to avoid the conflict supports that both users have common but different statements: “Let’s settle our overview”. He declines the user’s position: “That’s not exactly my position”. Also, he provides a range of examples, which, to his mind, describes manipulation in the brightest way: “a person who is interested in manipulative detection will look for them on his own” [10]. He agrees that more examples should illustrate more positive ways of manipulation in such spheres as: “activism, marketing, and advertising”, but he keeps to his point.

**Opposition 11.** *Korny O’Near* agrees on the definition: “Okay, that definition sounds fine to me”. In this case, the discourse marker “Okay” indicates a mild acceptance of the definition, proposed by the previous user. Still, the user, as usual, stands by his confession: “Although, there’s a disagreement that those samples have necessary information” [10]. The user predicts the probable response of *Andrewaskew* in order to make him ready for one more controversial statement: “Of course you could have had a dispute over such a “transit””. He also states that he may misinterpret another user’s thought: “if not to make account of responses” [10].

*Andrewaskew* revives the interest by suggestion: “am on the lookout for interested editors”. As for blog posts: “Blog comments and posts, to my mind, should be described as a content of news and publishing, although we have to deal with another new culture of those blog posts”.

*Andrewaskew* provides a definition of media manipulation and *Korny O’Near* is truly against: “The strangest utterance here is the first, to my mind” [10].

*Andrewaskew*, yet again, smoothes the conflict in order to find a solution: “Anyway those samples cannot be interpreted in terms of questions which arise here. Whatever it takes I see what you wanted to say” [10]. And, at last, he suggests a solution with an attempt to make it the last one: “Well, to my mind, there’s a possibility to create new samples, at least it is better for you to look awkward than sophisticated?” [10].

**Opposition 12.** The discourse marker “well” indicates that *Korny O’Near* is, as usual, oriented controversially at the statement mentioned above. Firstly, he agrees that: “I agree with you that all those samples are important” [10], but usually he expresses disapproval: “What about samples - if to consider them right now, I do not suppose that such kind of samples matters in terms of this article” [10], “peculiar objective samples are not really considered beneficial, even though they might be interpreted as a summary” [10]. The user assumes that both authors may agree on some example: “It seems to me that for you and me it may be considered as an objective one, if to take

one part of it, and could be a great sample of manipulative techniques” [10]. The question which follows, unlike other previous questions of this user, implies a suggestion with an advisory manner: “Could that be regarded as a true or objective sample of that sort of thing?”.

*Andrewaskew* provides credible information about the types of examples they really need: “To my mind, samples are two-sided. Here we deal with proof, moreover, something to be explained. There’s no case of obvious samples, although there’s a possibility of some figures” [10]. Further, the matter of example relevance is provided: “It makes sense when we talk about the accuracy and precise information the examples may convey” [10]. The user also provides a suggestion in terms of “Context” and “Techniques” sections: “Would you say they need to be rewritten?”.

**Opposition 13.** *Korny O’Near* agrees with the statement that changes should be brought into “Techniques” section. This time the user does not try to convince another user in his righteousness, but even aggress with him to some extent: “there’s no need to be against that” [10].

Finally, *Andrewaskew* accepts the suggestion of *Korny O’Near* to be one of the accurate definitions: “Oh, I like that”, “that is very short and concise”, “I doubt if those examples may be used as the interpretation of ours” [10]. As for “Techniques” section, the user suggests better ways to enhance it dealing with such problems as: “We can deal with paraphrasing”, “Here is a great concentration of manipulative forms”, “looks down at some other people” [10], “Does it belong in the article at all?”. There are some suggestions: “For a minute, to my mind, it is required to be thoughtful, if we could just make a section with a title “Manipulative forms or ways?” [10]. The question “What do you think?” indicates that the user’s suggestions should be dealt together.

**Opposition 14.** *Korny O’Near* disagrees concerning that previous user’s statement: “In my opinion, I do not see whether such separateness will help a lot”, “all our efforts could have been reduced to another section with lots of issues” [10]. The sharpest reply of all mentioned above in a question form: “we need to cut a lot in this article if we want to make it perfect, right?” [10]. But *Andrewaskew* agrees on that point: “To my mind, I will do that anyway, my gratitude” [10].

**Table 1.** A sequence of manipulations concerning conversation stages

Opposition	Korny O’Near	Andrewaskew
1	Rough perception of the nature of dialogue, doubtful suggestions and advices, opinion contrast	Suppression with probable suggestions/advices
2	Uncertainty/ probability in comments Resistance to another reply Hidden persuasion	Protesting with further interpretation Open persuasion
3	Personal advocacy, attempt of justification	Expressive opposition, assertiveness in own statements, repetitiveness and paraphrasing with emphasis,



Opposition	Korny O’Near	Andrewaskew
4	Unacceptance of another reply	agreement with another reply, standing by own confession Assertiveness in own statements, act of poaching, suppression with probable suggestions/advices Hidden persuasion, paraphrasing with emphasis
5	Dodging – self-denying, seem incompetent, personal unjustified advocacy	Credible justification with interpretation, comparison of notions, setting the priorities
6	Agreement with another reply, suppression with probable suggestions/advices, effect of hopelessness, despair, positive interpretation of another reply, personal advocacy	Sharp generalization, suggestions, exemplification, justification, standing by own confession
7	Agreement with another reply, suppression with probable suggestions/advices, positive interpretation of another reply, justification with comparison, personal advocacy	Agreement with another reply, justification with comparison, protesting
8	Agreement with another reply, positive interpretation of another reply	Agreement with another reply, standing by own confession, suppression with probable suggestions/advices, justification
9	Unacceptance of another reply	Explanation, exemplification
10	Positive interpretation of another reply, technique of trapping	Agreement with another reply, repetitiveness and paraphrasing with emphasis
11	Agreement with another reply	Suppression with probable suggestions/advices Suggestions, exemplification
12	Unacceptance of another reply, assuming agreement	Suggestions, exemplification
13	Agreement with another reply	Suggestions
14	Neglect in request	Agreement with another reply

To conclude, a symbiosis of lingual, psychological and media-text discourse analyses was applied. It allowed to establish the interrelation between users, mainly those of the heated discussion – *Andrewaskew* and *Korny O’Near*, within the communication on the Wiki Talk Page “Media Manipulation”. The lingual discourse interpretation of the conversation along with the psychological insights was considered. Different frequency of quantity was provided. As for the acceptance

(approval, agreement) of the statement and unacceptance (disapproval, disagreement), the figure is 13 times in common for *Korny O'Near* and 3 in common for *Adrewaskew*. From the interpretation analyzed, it is seen that *Andrewaskew* tends to smoothen all the conflicts (frequent notion of euphemism) unlike *Korny* contradicts, provokes, persuades, etc. The phenomenon of repetitiveness of the same statement, phrase, marker (7 occurrences) proves the necessity of opinion justification, necessity to emphasize with an aim to convince another user. Specific discourse marker of caution indicated the willingness not to be misinterpreted. A notion of euphemism was applied in a form of paraphrasing. The usage of idioms and set expressions varied and generalized the statements. One of the user's incompetence markers generated his own contradictions. A numerous occurrences of rhetorical questions were caused due to various aims: to poach, to convince/persuade, to sound competent, to interpret own statements, to evoke doubts, to heat debate, to generate a conflict, to trap another user, etc. A frequent usage of discourse markers of probability (e.g. it seems to me, I think, IMHO) allows to assess the whole conversation as a suggestion-oriented, with an advisory attitude to the article in general. The lingual and psychological techniques of poaching/dodging were aimed at convincing/implicit unacceptance of the statements. There were frequent comparisons within examples provided and statements as well. They serve to clarify the subject matter of the statements.

#### **4 Conclusions and Perspectives**

In the paper, particular aspects of linguistic trace [12-16] from the psychological manipulations in public communication within traditional social networks and forums were considered. It should be noted that the study of linguistic traces of psychological manipulations in discussions concerning Wikipedia pages is the first step towards formalizing the system of indicators of manipulative influences. Such a system could further form the basis for automated recognition of psychological manipulation attempts regarding Wikipedia authors, for example in the form of a special Wiki-bot, according to Wikipedia's recommendations. Such a tool [9] would be useful in protecting the contents of Wikipedia from deliberately harmful influences and would help strengthen the community of Wikipedia authors. Overall, the paper is a basis for further studies on linguistic manipulation, its influences and techniques in different types of communities of social networks.

#### **References**

1. Danilova, A. A.: Manipulation by a word in mass media, M., Dobrosvet, Izdatelstvo "KDU", 234 (2009).
2. Kunch, Z., Kharchuk, L., Syerov, Y., Fedushko, S.: Development of concept of terminological online assistant for electric power engineering specialists. In: 12th International Scientific and Technical Conference on Computer Sciences and Information Technologies, CSIT 2017, pp. 83–86. Lviv (2017). DOI: 10.1109/STC-CSIT.2017.8098742.

3. Nordquist, Richard, *Observing the Human Use of Language Through Discourse Analysis*, ThoughtCo, (2019).
4. Peleshchyshyn, A., Markovets, O., Vus, V., Albota, S.: Identifying specific roles of users of social networks and their influence methods. In: 13th International scientific and technical conference on computer science and Information technologies, 39-42 (2018).
5. Peleschyshyn, A., Holub, Z., and Holub, I.: Methods of real-time detecting manipulation in online communities, In: XIth International Scientific and Technical Conference Computer Sciences and Information Technologies (CSIT), Lviv, pp. 15-17, (2016).
6. Peleshchyshyn, A., Holub, Z.: Development of the System for Detecting Manipulation in Online Discussions. *Advances in Intelligent Systems and Computing*, vol 543 (2017).
7. Titscher, S., Wodak, R., Meyer, M., Vetter, E.: *Methoden der Textanalyse: Leifladen and Überblick* Westdeutscher Verlag GmbH, p. 384 (1998).
8. Mathewson, D.: *Media discourses: analyzing media texts*, New York, 224 (2005).
9. Zemskaya, Y. A.: *Language as an activity. Morpheme. Word. Speech. M., Languages of Slavonic culture* (2004).
10. Wikipedia Help: Creating a bot [https://en.wikipedia.org/wiki/Help:Creating\\_a\\_bot](https://en.wikipedia.org/wiki/Help:Creating_a_bot)
11. Talk: Media Manipulation [https://en.wikipedia.org/wiki/Talk:Media\\_manipulation](https://en.wikipedia.org/wiki/Talk:Media_manipulation)
12. Fedushko, S.: Development of verification system of socio-demographic data of virtual community member. *Radio Electronics Computer Science Control* 3, 87–92 (2016). DOI: 10.15588/1607-3274-2016-3-11
13. Syerov, Yu., Fedushko, S., Loboda, Z.: Determination of Development Scenarios of the Educational Web Forum. In: *Proceedings of the 11th International Scientific and Technical Conference on Computer Sciences and Information Technologies, CSIT 2016*, pp. 73–76. Lviv (2016). DOI: 10.1109/STC-CSIT.2016.7589872.
14. Fedushko, S.: Development of verification system of socio-demographic data of virtual community member. *Radio Electronics Computer Science Control* 3, 87–92 (2016). DOI: 10.15588/1607-3274-2016-3-11
15. Fedushko, S., Ustyianovych, T.: Predicting Pupil's Successfulness Factors Using Machine Learning Algorithms and Mathematical Modelling Methods. In: Hu, Z., Petoukhov, S., He, M. (eds.) *Advances in Intelligent Systems and Computing series, ICCSEEA 2019*, vol. 938, pp. 1–12 (2020). Springer, Cham (2020). DOI: 10.1007/978-3-030-16621-2\_58.
16. Korobiichuk, I., Fedushko, S., Juś, A., Syerov, Y.: Methods of Determining Information Support of Web Community User Personal Data Verification System. In: Szewczyk R., Zieliński C., Kaliczyńska M. (eds) *Automation 2017. Advances in Intelligent Systems and Computing*, vol. 550, pp 144–150. Springer (2017). DOI: 10.1007/978-3-319-54042-9\_13.