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## THE TECHNOLOGY OF SUGGESTIVE INFORMATION-PSYCHOLOGICAL OPERATIONS MASKING IN THE INFOCOMMUNICATION SPACE

### Introduction

The analysis of soldiery conflicts of beginning of XXI of century testifies to appearance of new forms and methods of the armed fight between the states for achievement of corresponding political aims and resolution of intergovernmental conflicts. On changing the so-called “hybrid wars” came the classic forms of the armed fight. They have the hidden character conducted, mainly, in political, economic, informative and other spheres. The essence of such wars is displacement of center of efforts from physical elimination of opponent within the framework of scale war to application of facilities of the so-called “soft force” against a country-opponent with the purpose of disintegration, change of her guidance and plugging in the sphere of the influence. Component part “hybrid wars” are including informative and informatively-psychological operations which are conducted with the purpose of manipulation mass consciousness with the use of all types of informatively-psychological influences and on the subconsciousness of man.

Today a concept “Manipulation consciousness” implies driving the home of ideas, ideas, and presentations by distribution of specially geared-up in context information. Manipulation consciousness got the wide distribution not only and not so much in a military sphere and in a policy and economy (to the advertising sphere and ser-vice business). Manipulation consciousness is used and in the system of education and preschool education of children. It can have both positive and negative consequences and be sent to the conscious and subconscious sphere of man. As manipulation it is a type of spiritual and psycho-logical influence the target of which is a psyche of human personality, then for achievement of success, manipulation must remain unnoticed. Success is assured, when object of manipulation, believes that all that be going on naturally and inevitably, and the fact of manipulation is not reflected in his memory.

Such affecting subconsciousness requires considerable trade and knowledge. As manipulation public consciousness became technology, there are professional workers, owning this technology or some her part, which behave to the people not as to personalities, but as to the objects, special family to the things. With the increase of information, circulatory in informative space content, for the realization of such suggestive influences and counteractions plenty of specialists and automation of processes are required them for the increase of their operation ability and increase of purview.

From here the actual scientifically-applied task is the automated exposure in text information of the suggestive affecting subconsciousness of man, neutralization of such negative influences and drafting of informative materials with the set type of suggestive influence.

### Analysis of the last researches and publications

For the analysis of text information, today worked out and proceeds developed a number of approaches and methods [1–6], realized on the basis of programmatic facilities of analysis and linguistic text [manipulation 7].

Most methods will be realized by going near the analysis of the semantic structure of the text and his logical segmentation [1–4]:

– a statistical approach for an analysis allows obtaining information about the structure of text only on the basis of included in him separate words, the key which those words number of which in the text of the higher set amount will be considered from;

– semantic methods allow to define subject maintenance of text, his thematic orientation, and also to define connections between separate parts of text and text on the whole. Semantically constrained such suggestions or indentions in which identical keywords or words are with an identical value are considered;

– linguistic approaches are based on syntactic and morphological methods. They allow to bring text forms over of words of document to the dictionary forms;

– a content-analysis allows to define the frequency of appearance in text of certain descriptions which interest a researcher, and also allows doing some conclusions about intentions of the creator of this text or possible reactions of addressee.

These hikes are realized in the great number of pro-grammatical facilities [7].

Most popularity was got by the system TextAnalyst (<http://www.analyst.ru>), which allows building the semantic network of concepts, distinguished in the processed text, with references to the context. The function of semantic search of fragments of text is present taking into account the semantic connections hidden in text with the words of query. Possibilities of analysis of text are presented by the construction of hierarchical tree those (subthemes) which are examined in text and abstracting of the document.

The alternative going near the analysis of text information was offered A. P. Spindle. This approach is based on determination of phonetic value of words of Russian (semantic differential) [5; 6]. In the works, he presented experimental data of linguistic theory of richness of the content of voice form in Russian.

Realizing approaches of discovery and analysis of phonetic values of words with the use of semantic differential, it is possible to conduct the analysis of text documents and performances, define their orientation and carry out adjustment according to the set descriptions of influence [8]. On the whole, the realization of the technology of analysis of texts and performances allows estimating the “degree of preparedness” to effective perception and hidden orientation of informatively-psychological influence.

This approach was realized in the Russian programmatic complex VAAL (<http://www.vaal.ru>), which allows to forecast the effect of the unrealized influence of texts on a mass audience, to analyses texts from the point of view of such influence, to make texts with the set vector of influence and expose the individual psychological internals of authors of text.

One of the greatest lacks of the system VAAL is the absence of description of her mathematical base and by the prohibition of delivery on an export and for the commercial use of this product in full.

It is, therefore, necessary to create the own the information-analytical system of complex analysis of text documents, allowing to define the degree of suggestive influence on the subconsciousness of man.

In [8–10] in a formalized kind the system of the informatively-psychological opposing is considered and the theoretical going is offered near the creation of the system of complex analysis of the influence of information on the subconsciousness of man. This theoretical approach allows to define in the text of document the segments of text, which correspond to the certain subjects, and also to distinguish from them key component with the selection of the suggestive orientation of text on the whole. In works [11–12] some separate methods of exposure of the suggestive affecting were offered subconsciousness of man, which are the component elements of the system of complex analysis.

#### **Purpose of the article (statement of the task)**

The aim of researches is the development of methods of exposure of the destructive suggestive affecting sub-consciousness of man in separate words and text messages in the conditions of the informatively-psychological opposing on the basis of semantic differential, phonetic and sound-and-light analysis.

#### **Exposition of the basic material**

The methods of exposure of suggesting are oriented to the analysis of words, that gives understanding, how it is perceived by a man. But they can be adapted and for the analysis of all text on the whole. The first approach consists in the analysis of every word individually and determinations of the mean value for all words. A defect is that is analyzed every separate word, and the end-point is unconnected with a row standing words. And it talks that any text, made from this set of words, will have an identical estimation. But using the same words, it is possible to make text absolutely differently and with a different message.

Consequently, it is necessary in some wise to fix the words of text in that order in which they were disposed of by an author and in any way differently. It will give an unique estimation exactly for such well-organized gibberish.

Therefore the second approach supposes for such obvious fixing or dependence of words of bringing this set over of separate words in a single, indissoluble line and realization of analysis of this got the line, as a single word.

Each of these approaches has the pluses and minuses, it is therefore needed to examine both variants. Thus analysis during which all text is analyzed wholly, we will name static.

We will consider going near the static analysis of text words by word. He supposes the next stages:

1) as an analysis is produced words by word, then analyzable text in this case must be broken up into separate words;

2) every word individually needs to be analyzed by that method of exposure of suggestive influence, which is chosen for the analysis of text: semantic differential, phonetic or sound-and-light analysis;

3) after the receipt of all estimations on every word, a middle estimation hatches for all results by a calculation middle arithmetic. Thus, we have an estimation which is a mean value, for every word which text is made from.

Further, we will consider approach at which the analysis of text is produced as a single unit, which consists of the next stages:

1) all analyzable text is translated in one indissoluble line, as the very long word by throwing aside of blanks, punctuation marks, translation of numbers in the text form of writing. Thus, the end of one-word associated with beginning of the following;

2) the got line is analyzed by the required method (semantic differential, phonetic or sound-and-light analysis), by analogy with the analysis of one word. It will give an unique estimation for such sequence of words in a text document.

Coming from that the static analysis of all text gives to us presentation that, what influence he will render to a man at his complete reading, that we get some averaged indexes for all parts of this text follows. Id est. it is impossible to say that each of parts of text individually has the same index of influence, as well as all text wholly. It is possible to suppose that text is built so that every his part, has the distinctive affecting subconsciousness. It to become an important fact in that case when a man reads or hears separate part of text only. The static analysis of all text will be not informing at that rate, in fact, only one indentation can render strong influence, while the greater part of the text will be neutral, that will smear the results of analysis in the end. By more effective decision such the tasks a dynamic analysis can become.

A dynamic analysis implies under itself breaking up of text to pieces and analysis of each of these parts individually. Thus, it is possible to trace the dynamics of change of the suggestive affecting man from beginning to end of the text or to estimate his concrete area only. Such analysis can show similarly, what parts of text make sense to reduce, and what to leave, at a necessity reduction of text. Such approach advertising companies can use, abbreviating ethereal time of advertising, but, not reducing her necessary affecting subconsciousness.

As a rule, most texts consist of indentions, as by intermediate unit between a phrase and chapter, that serves in turn for the gourmet of homogeneous units of exposition. It is, therefore, possible to draw the conclusion, that a dynamics it is better to trace on

indentions because usually an indentation is express some general idea. But is and so, that text is not rubricated, or they dissatisfy to our idea about the size of the single block for an analysis. At that rate, text can be broken into some blocks of text set beforehand. It can be as breaking up on an amount by a symbol on a block or words, suggestions. Minus of such breaking up will be that blocks of text, can tear, bound by general I think to part of text or suggestion.

The analysis of text a dynamic method supposes the next sequence of the stages:

1) original text must be broken up into some blocks of text, which require being analyzed. More comfortable and more expedient than all to break up on indentions;

2) it is necessary to define what block of text will be analyzed;

3) as this approach on the essence is static, only that not all text, and chosen his part, is statically analyzed, then on this stage, one of the variants of the static going is used near the analysis of the chosen fragment;

4) if necessary it is possible to go back to a point 2 algorithms and to choose another area of text for a retest. Thus, on the basis of the dynamic method, it is possible to give an idea about what suggestive influences are possessed by every part of the text.

As statistics shows, the about half of the people does not finish reading a book to the end. By reason, it can it be as the absence of time, but also the absence of the personal interest or absence of some emotions which was expected during reading. It sets the problem before us, to define, how it is possible to build text so, that he caused the personal interest at reading and did not push away from him during reading. For such sort of task, it would seem, the dynamic method of analysis befits well, he will give an idea about every area of text. But if to take into account circumstance that reading text from the beginning, a man does not perceive every fragment or indentation as the unrelated fragment, but as accumulates that information which got now, with that which was an indentation before. That can be done conclusion, that as far as mastering, every subsequent got information, will complement already present information. And it means that at the analysis of subsequent part of the text, it is necessary similarly to take into account his previous parts because every subsequent segment will complement the general picture of presentation or influence on the consciousness of man.

Going near the dynamic analysis of text supposes the next basic stages a story result:

1) original text must be broken up into some blocks of text, that will allow, moving consistently

on blocks, to analyze the accumulated information, similarly as though it was done by a man reading text. More comfortable and more expedient than all to break up on indentions;

2) as this approach implies under itself that man beginning to read text moves from the initial point of reading further on text, filling up information the same about reading. That must be defined this beginning from which it is necessary to produce an analysis and accumulation of information. For this purpose, it is suggested to choose the block of text which will be analyzed by the first. It is not obligatory beginning of text, in fact, a man can begin reading and not from the beginning, and for example, from the second chapter;

3) this approach though and differs from dynamic to those that analyses the blocks of text by their accumulation, but all accumulated text all is similarly analyzed by means of the static method. Similarly as well as in dynamic approach, it is possible to apply one of the variants of static analysis words by word or by a line. Algorithm from it will not change;

4) for determination, what suggestive influence will produce the next area of text with already accumulated previous, it is necessary to the accumulated blocks of text, to add the following and go back to a point producing 3 algorithms retest with the again accumulated information.

The method of analysis of texts on the basis of semantic differential supposes the next stages a story result:

1) original text is broken up into necessary blocks;

2) the first block of text, which the accumulation of information will be produced from, is determined;

3) the chosen block of text appears as one word;

4) for every letter of the word a coefficient settles accounts on a formula:

$$k_i = \frac{P_{\max}}{P_i},$$

where  $k_i$  — is a coefficient it of the sound in a word;  $P_{\max}$  — it is maximal frequency of sound in given one's word;  $P_i$  — it is a tabular value of frequency of sound-word;

5) got coefficients corrected depending on noticeableness of letters in a word:

– for the first sound it is necessary to increase a coefficient in 4 times:

$$k_1 = 4k_i = 4 \frac{P_{\max}}{P_i},$$

– for a shock sound it is necessary to increase a coefficient in 2 times:

$$k_{y\partial} = 2k_i = 2 \frac{P_{\max}}{P_i};$$

6) phonetic meaningfulness increases for every sound-word on the basis of multiplying of every phonetic value of sound-word by a corresponding coefficient;

7) the calculation of the value of semantic differential is conducted on a formula:

$$F = \frac{\sum_{i=1}^n f_i k_i}{\sum_{i=1}^n k_i},$$

where  $F$  — is a phonetic constituent of word;  $n$  — it is an amount of sounds (letters) in a word;  $f_i$  — it is a phonetic value of skin of  $i$ -th sound (letters) of word;  $k_i$  — it is a coefficient for every of  $i$ -th sound (sound).

8) after the analysis of all blocks of the accumulated text, it is necessary to count up their mean value. A result will be a value of semantic differential of the accumulated text;

9) if necessary it is possible to add another block of text to already accumulated, to pass to the stage 3 and to continue an analysis.

The method of phonetic analysis of the semantic constituent of text supposes the next stages a story result:

1) original text is broken up into necessary blocks;

2) the first block of text, which an accumulation will be produced from, is determined;

3) the next stage is an analysis of the accumulated text the method of phonetic analysis of semantic constituent words by word. For this purpose a phonetic value is determined for every word from the accumulated text;

4) for every letter of the word the incurrence of sound-words is counted up and the amount of every sound-word is counted up. It is necessary for the determination of arrival of every sound-word rate in a word. On the basis of finding frequency is determined by dividing of number of including of sound-word by the incurrence of sound-words in a word;

5) the next stage is determination of rejection of frequency of sound-word from a norm;

6) it is further necessary to count up the contribution of every sound-word to general tone of text;

7) the finishing stage of calculation of phonetic meaningfulness of word is a total value of holding of every sound-word in general voice tone of text;

8) after the analysis of all words of the accumulated text, it is necessary to count up a mean value for all values of words. A result will be a phonetic value of the accumulated text;

9) if necessary it is possible to add another block of text to already accumulated and to produce an analysis repeatedly.

### Conclusions

The worked out methods can be used for the exposure of the destructive suggestive informatively-psychological affecting subconsciousness of man. With their help it is possible:

- to estimate the emotional influence of separate words on the subconsciousness of man;
- to estimate the emotional influence of the phonetic structure of texts on the subconsciousness of man;
- to estimate the level of aggressiveness of texts on the basis of analysis positive and negative influences of separate words on the rich in the content value of text on the whole.

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**Belikova T. V.**

### THE TECHNOLOGY OF SUGGESTIVE INFORMATION-PSYCHOLOGICAL OPERATIONS MASKING IN THE INFOCOMMUNICATION SPACE

*In the article offered the approach to the exposure of the destructive suggestive affecting subconsciousness of man in text messages in the conditions of the informatively psychological opposing. The exposure of destructive influences it is suggested to conduct on the basis of semantic differential, phonetic and sound-and-light analysis of words and text documents. Realization of these methods will allow estimating emotional influence of separate words and phonetic structure of texts on the subconsciousness of man.*

**Keywords:** state video resource; binomial coding; informational security; structural slotting; telecommunications.

**Белікова Т. В.**

### МЕТОДИ ВИЯВЛЕННЯ ДЕСТРУКТИВНИХ СУГЕСТИВНИХ ІНФОРМАЦІЙНО-ПСИХОЛОГІЧНИХ ОПЕРАЦІЙ У ІНФОРМАЦІЙНО-СОЦІАЛЬНОМУ ПРОСТОРІ

*Пропонуються підходи до виявлення деструктивних сугестивних впливів на підсвідомість людини в текстових повідомленнях в умовах інформаційно-психологічного протистояння. Виявлення деструктивних впливів пропонується провести на основі семантичного диференціалу, фонетичного та звуковітлового аналізу слів і текстових документів. Реалізація даних методів дозволить оцінити емоційне вплив окремих слів і фонетичної структури текстів на підсвідомість людини.*

**Ключові слова:** сугестія; підсвідомість; вплив; інформаційно-психологічний вплив; фонетичне значення.

**Белікова Т. В.**

### МЕТОДЫ ВЫЯВЛЕНИЯ ДЕСТРУКТИВНЫХ СУГЕСТИВНЫХ ИНФОРМАЦИОННО-ПСИХОЛОГИЧЕСКИХ ОПЕРАЦИЙ В ИНФОРМАЦИОННО-СОЦИАЛЬНОМ ПРОСТРАНСТВЕ

*Предложены подходы к выявлению деструктивных сугестивных воздействий на подсознание человека в текстовых сообщениях в условиях информационно-психологического противоборства. Выявление деструктивных воздействий предлагается проводить на основе семантического дифференциала, фонетического и звукоцветового анализа слов и текстовых документов. Реализация данных методов позволит оценивать эмоциональное влияние отдельных слов и фонетической структуры текстов на подсознание человека.*

**Ключевые слова:** сугестия; подсознание; воздействие; информационно-психологическое воздействие; фонетическое значение.

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