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Convergent Approach to Communication Technologies in Political Decision-Making

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Abstract. One of an urgent challenge of modern life is an absence of an effective methodological tool needed to support management decisions. Scientific management schools differently identify their responses to this challenge. In this article the authors' aim of the research is the scientific substantiation of the convergent-communication approach to the design on an interdisciplinary basis of technologies (non-verbal type cross-sensory interpersonal communications) of intellectual support for the decision-making process in the political sphere. The results of the study substantiate a fundamentally new interdisciplinary convergent-communication scientific approach to solving the problem of increasing the effectiveness of political decisions by coding and transmitting information through cross-sensory personalized communication with decision makers.

1. Introduction

The scientific school of systems engineering has formed many effective methods for intellectual support of the decision-making process, however, in the arsenal of these methods, there are mainly rational methods oriented to broadcast by decision makers of information analyzed by centers of analytical and rational thinking of the human subconscious. The results of this kind of communicative process are effective ways of infographics, involving the streamlining of information and minimization of the visual means of its presentation (infographics).

Such information materials for support of decision-making process do not require special training in production and for this reason they are produced unprofessionally, at the level of intuition of employees who do not have scientific competencies. That is why such tools (infographics) have become generally accepted in practice. Practitioners of systems engineering develop these materials based primarily on the rules of graphic design and corporate identity of organizations.

However, this method of intellectual support for the decision-making process has a number of disadvantages. The main one of them is the inability of infographics to develop solutions that have a high degree of effectiveness and efficiency in the political sphere due to the conciseness of information, which leads to a multiplicity of their understanding and interpretation. Solution for the existing situation can be a change in the approach of interpersonal communications design through information materials for intellectual support of the decision-making process of a fundamentally

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different nature. Instead of the traditional approach with infographic visualization of information for political decision makers, multisensory infogram materials are formed on a scientific interdisciplinary base. This approach applies the convergence of methods and knowledge from several branches of science: political science, sociology, psychology, neurophysiology, behaviorism (behavioral science).

2. Convergent approach research

The scientific novelty of the project results is based on the generating new experimental data in the field of political science and the specified sciences convertible with it, as well as their subsequent interpretation for engineering on this basis of the methodological tools of effective interpersonal communications in the political sphere. The results of this study have practical interest for decision makers in the political sphere of Russia. This method solves the problem of low efficiency of translation of complex heterogeneous information as a system element of the decision-making process in the political sphere.

In the current period, modern business and politics used the approach of minimization of the visual means of the analysed information. The proposed project assumes the use of a fundamentally different approach - the narrative. The purpose of the narrative approach is to create around recipients the space for the development of alternative, preferred stories that will give the opportunity to feel able to influence the course of their own lives, become the author of their own history and embody it, attracting "their" people to enhance feelings of care and support. Tools of this kind of communication technology are: coding and transmission of information material through codes of cross-sensory nature, aimed at the perception of information through the channels of the human subconscious, bypassing the logical centres of information analysis.

Designing materials for intellectual support of decisions in the political sphere will be carried out on a convergent-communication platform involving a multi-level algorithm: a pre-system analysis to identify and rank many elements of an information system, using them as criteria for multi-scenario optimization in subsequent hierarchical analysis of alternative solutions in specific psychographic profiles of decision-makers (pre-established in-depth interview method).

The result of the use of such communication technologies is targeted infographic formation for developing personalized motivated decisions of respondents of a narrative nature. At the same time, the transmitted information becomes understandable by the decision maker at the emotional and subconscious level. It acquires a deep emotional colouring, the value of a personalized stimulus that contributes to the subsequent intellectual system analysis of a rational type.

The main objective of the upcoming project is to identify the possibility of forming cross-sensory modules (info-communication codes), which can effectively transmit complex political information to individuals through cross-sensory channels (feelings, emotions, habits) in order to develop an effective response in the unconscious decision making and its subsequent reasoning in the realm of the conscious.

The next tasks are to design methodology of the communicative process for the translation of targeted information directly into the sphere of the unconscious and design of cross-touch info-communication technologies (cross-infogramming).

To solve these problems it will be required to create an interdisciplinary (political science, sociology, psychology, neurophysiology, behaviourism - behavioural science) multi-level and multi-scenario system of algorithms, models and methods. It is supposed to test the results of research at all stages of the project.

The solution of these three problems will allow forming a new scientific convergent-communication approach to communication technologies in the field of political decision-making.

3. Convergent approach to communication technologies

Research in the field of sensory communication is carried out by many researchers. However, all the above scientists investigate behavioral reactions without reference to the nature of the choice of

decisions in the field of political choice, without taking into account the peculiarities of the diversity of this process when choosing one of several options for the possible consequences of such decisions.

Most closely to the field of this scientific research are scientists belonging to the scientific school of game theory. The Nobel laureate in economics (1994) J. Nash, the author of the theory of equilibrium in non-cooperative games, can be considered a brilliant example of this scientific school. At the same time, his theory is not universal and widely applicable in designing information materials for intellectual support of decisions in the political sphere, since this mathematical model involves the interaction of several parties (players), during which the possibility of coordination of actions is excluded. Political practice in the overwhelming majority of cases, on the contrary, provides for a one-sided decision-making process and for this reason requires other support tools. The concept of a convergent-communicative system created using theory of games is based on the fundamentals of convergent sciences: political science, sociology, psychology, neurophysiology, and behaviorism.

Formed scientific approach is based on the imperative of the Nobel laureate in economics (for researches in the field of consumption, 1976) Milton Friedman, called “libertarian paternalism”: “people should be able to do what they like and not do what they don’t like”. The author of this scientific approach declare full support of freedom of choice and its steady development (libertarian aspect), while it is necessary to delicately influence the selection process, gently pushing them towards choosing an alternative that will improve their lives (paternalistic aspect). The party providing the paternalism of the selection process is designated by another Nobel Prize winner in economics (for combining economics with psychology, 2017) Richard H. Thaler as the “architect of choice”. Thaler defined the whole range of non-verbal communication tools with decision makers as “pushing” (Nudge), meaning by this term: “any aspect of the choice architecture that predictably affects people's behavior, does not prohibit anything and does not make noticeable changes in their economic habits. As a condition for the practical application of such kind of paternalism, the author of this approach formulated as: “an opportunity to evade “pushing” in the absence of any form of obligation with this evasion”.

The development of Richard Thaler’s libertarian paternalism approach by Milton Friedman was given a proper name - "Architecture of choice." This scientific paradigm formed the basis of this project. Research aimed at achieving the goal of this project develops the specified Thaler paradigm with fundamental scientific knowledge. This line of research, in turn, is designated as "The Experimental Economics of Smith-Kahneman" (Theory, Experiment and Economics) by two Nobel Prize winners in economics (2002) Daniel Kahneman (Daniel Kahneman - for the application of psychological methodology in economics, especially for the study of the formation of judgments and decision making under uncertainty) and Vernon Smith (Vernon Lomax Smith - for the creation of laboratory experiments as a tool in empirical analysis, especially in the study of alternative market mechanisms) under the scientific guidance of Vasily Leontiev. The Smith-Kahneman experimental economics methodology is based on the use of experimental methods to test the validity of economic theories. Economic experiments provide insight into the typical behavior of management subjects in controlled laboratory conditions. One of the advantages of this approach is the ability to clearly formulate the choice of an alternative solution in front of the subject’s volunteers in a particular experimental situation.

The results of these experimental studies formed the basis for creating information-sensory modules, which at subsequent stages of the project through computational and project experiments are formed into prototypes suitable for working with people.

The theory of narrative information design, developed by Nigel Holmes, is used as a fundamental approach to achieving the goal of the research and solving its tasks. The development of this theory is assumed on the basis of a convergent-communicative approach and system analysis methodology. These two scientific directions will make it possible to substantiate the technology for designing cross-sensory materials (cross-infograms) intended for intellectual information support of managerial decisions. This methodological approach is unique and has not been previously used to achieve the stated goal.

The facts obtained as a result of the research are related to the socio-humanitarian block of scientific disciplines: philosophy, sociology, psychology, behaviorism, economics, communication science, conflict management. The implementation of tasks in the field of experimental research will be the generation of new fundamental data on the impact of information-sensory codes, their combinations on the emotional state of decision-makers in the political sphere, to motivate rational actions in the process of choosing alternatives.

Designing and modeling the process of directed stimulation of rationally oriented decision-makers behavior makes it possible to create fundamentally new models of interpersonal communication through the convergence of active communicative factors of the modular type for the management choice of alternatives ensuring its optimality and high efficiency in the political sphere.

The identified aspects are reasonably taken into account as the criteria and conditions for the subsequent computer modeling of the elements of the infogramming system. In the mathematical model of a vector type, an author's algorithm is used to optimize the structure of information and communication materials (cross-infograms) by combining the system elements of a convergent-communication nature. To identify the target criteria and parameters of these materials, sociological studies are conducted (in-depth interviews, focus groups, etc.), followed by ZMET analysis of the results (J. Zaltman's method, US Patent No 5436830, 1995) in potential decision-makers target audiences. In the typology of psychographic patterns, a test of an integrated diagnostic system will be used (V. V. Libin, 1986).

For prototyping of cross-infograms, cross-sensory channels will be designed through which pre-formed unique info-communication codes will be transmitted. Information coding will be carried out taking into account the priority and reasonable limitations of the limits of system elements of cross-sensory nature. Successful prototypes will be tested in a real political environment through numeric experiments. Variations of content and contextual design of the developed prototypes will be refined through social surveys and in-depth interviews.

As a result of the justification and engineering of cross-sensory systems, prototypes of information materials (cross-infograms) will be obtained for intellectual support of management decisions in the political sphere. These prototypes have practical interest for the policy of the Russian Federation.

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