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# Resources to matrix control of mental activity in information environments

Recursos para el control matricial de la actividad mental en entornos de información

### O.D SHIPUNOVA

https://orcid.org/0000-0001-8953-7434
o\_shipunova@mail.ru
Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russian Federation

# L.V MUREYKO

https://orcid.org/0000-0002-3439-3338 lamureiko@gmail.com Emperor Alexander I St. Petersburg State Transport University, Russian Federation

# IV KOLOMEYZEV

https://orcid.org/0000-0001-7411-3145 zelen\_2133@yahoo.com Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russian Federation

### A.Y KOZHURIN

https://orcid.org/0000-0002-5876-3305 ankogyrin@rambler.ru Herzen State Pedagogical University of Russia, Russian Federation

# O.N KOSTERINA

https://orcid.org/0000-0002-7131-5363 olga\_kosterina@mail.ru Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russian Federation

# **ABSTRACT**

The analysis of information resources to influence mass consciousness and personality behavior is rather topical in social sciences as media tends to control the public sphere for political purposes. This article aims to research resources to control mental activity that is connected with framing communication techniques analysis, particularly identifying matrix techniques to manipulate the subject's cognitive orientation in the communication field. It has been emphasized that orientation in the network social sphere is realized in hierarchically organized information.

**Keywords**: Communication Information Sphere, Mass Consciousness, Mental Activity, Social Control.

# RESUMEN

El análisis de los recursos de información para influir en la conciencia de masas y el comportamiento de la personalidad es bastante tópico en las ciencias sociales, ya que los medios tienden a controlar la esfera pública con fines políticos. Este artículo tiene como objetivo investigar recursos para controlar la actividad mental que están conectados con el análisis de las técnicas de comunicación enmarcada, en particular identificando las técnicas de matriz para manipular la orientación cognitiva del sujeto en el campo de la comunicación. Se ha enfatizado que la orientación en la esfera social de la red se realiza en información organizada jerárquicamente.

**Palabras clave:** Actividad Mental, Conciencia de Masas, Control Social.

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### INTRODUCTION

The issue concerning control resources over mental activity in the information sphere of the network community correlates with researching implicit techniques to manipulate individual and mass actions. Modern concepts of global network communities presuppose the communication information sphere, and a person's intellectual potential is considered in connection with material assets of technological development (Schwab: 2017). The challenge to control the mental dynamics is typically referred to as a person's self-identification, and the personal experience and his or her cognitive orientation become the basis of the social information field. The analysis of the information sphere's influence on consciousness and subconsciousness in communication techniques represents the topical task for the social theory and different interdisciplinary research within cognitive sciences.

Network society presupposes that social means of public sphere control that define a person's motivation and thoughts are implied in indirect computer techniques (Burgoon: 2016; Herring: 2013; Evseeva et al.: 2018). 'Being online' is becoming more and more involved in the daily lives of network users. Digital reality is naturally introduced into the sphere of social and mental experience, transforming a conventional universal life world of a person (Byl'eva: 2016). The influence of modern media means on perception, memory, and cognitive process in motivating a human behavior is especially highlighted in media psychology. New human functions in the information sphere of e-culture induce dissolving semantic borders of virtual and real spheres, and the problem to control mental activity and human behavior adequacy are revealed.

To address indirect communication channels, one needs to understand the hierarchy of semantic spheres in the information spheres that correlate with individual existence norms. Subconscious human observation of public norms and conventions characterize his or her actions in social practice. The fundamental character of group subconsciousness in a person's life is especially stressed in philosophy and sociology of the 20th century (Foucault: 1984; Bourdieu: 1991). The interrelation of mental dynamic and background knowledge gets a special focus on modern information culture.

This article aims at analyzing a communication resource to control mental activity in the information sphere, particularly in identifying indirect manipulation of the subject's cognitive orientation in framing techniques.

### 1. MATERIAL AND METHODS

The global scale of the information revolution is currently associated with the total involvement of interactive internet technologies into daily lives. Mobility is becoming the main function of modern society functioning and contributing to digital 'nomad' culture, where novel social reality features are identified. To describe such a culture of the concepts of unstable ontology are applied (Harman: 2016; Klyagin et al.: 2018) describing the problem of reliability of information and technology sphere (Lintern & Kugler: 2017). The trust in abstract information system based on impersonal principles and hierarchical control to guarantee activity security of such a system for a person is stressed (Giddens: 2013) It is vital to assure security of daily life, namely to provide successful movements and travels to be made by means of information services providing interaction of different socio-cultural and socio-technical environments (Matveevskaya et al.: 2018).

To characterize the information revolution phenomenon, L. Floridi (2014) introduced the cognitive criterion as a self-realization model, the change of which can refer to different evolution stages of the information environment in European civilization history (Floridi: 2014). To stress the universal character of e-culture L. Florida identified it as an «information sphere» (infosphere), in which «information organisms» (informs) exist and identifies a three-sided model of personality as a multi-agent system acting based on three-layer information interactions: physical, cognitive and conscious (Floridi: 2011).

The term 'infosphere' correlates with the whole sign system in a wide context, including a multi-layer system of virtual representations. The sign system of object representation presupposes semantic variations

in a mental image when choosing semantic structures decoded in visual images or a discourse. Symbols allow preserving and translating meanings in a social environment (Evans: 2017).

Information influence in self-organized unity correlates with human behavior control in a social adaptation. Social control is understood in a wide context as a deliberate influence on human behavior for the purpose of maintaining social order within the modern knowledge system. The deliberate democracy communication practice is based on the discourse resources to control behavior and thinking directed at the freedom principle to choose the civic position in a political process to delegate powers. Thus, implicit control over mental activity is realized by means of individual self-identification in social unity and acknowledging its accepted norms of understanding and actions (Habermas: 2010; Matveevskaya & Pogodin: 2017).

The indirect social influence techniques in the literature are identified based on the existential role of group subconsciousness in a person's life-forming a peculiar semantic sphere that correlates with the communication infosphere. Bourdieu (1991) stresses the functional role of habitus as a factor of implicit influence of this sphere on events understanding and actions motivation as a semantically unformed social field of oriented meanings and values. Giddens (2013) stresses the basic role of the cultural context informing practical human consciousness.

Foucault (1984) identifies episteme as social and historical knowledge space-enhancing implicit complicated network hidden from direct observation between «things» and «words». This network defines the perceptions and knowing «codes» that are peculiar for this or that epoch. According to Foucault, power does not solely represent state but also relations system penetrating into the whole social field. N. Luhmann (2004) stresses a key role of truth and power codes around which cognitive and social techniques are arranged (Luhmann: 1995).

New options of implicit control over people psyche and their activity manipulation enable biochemical and electronic means, particularly, influence on a brain by means of psychotropic substances and electronic media to change consciousness highlighting uncontrolled manner of NLP techniques and electronic media. Implicit manipulation is realized in sense inversion schemes, concept change accompanied by introducing double standards to evaluate statements when campaigning and propaganda making (Solonko: 2011).

Human information perception cannot become possible cognitive orientation in the semantics of the socio-cultural sphere. The original basic statement of the research lies in the topological approach to arranging live pragmatics of the society. The research methodology of resource management can be revealed via peculiarities of information reasoning, i.e. systematic requirements regularity perceived by system elements as objective conditions of existence or inhabitable environment pressure. Such a regularity to activate processes or actions successions is realized by means of a code. Functional interdependence within a system defines the viability of its functioning. Thus, information interaction and management processes have an objective character and analyzed on their own being abstract from any material society structure.

Within the information paradigm, the resources analysis to manage the complex system behavior is based on the notion of thesaurus –internal semantic field identifying information perception ability by an active subject and becomes one of the major signs of an intellectual system. This corresponds to a phenomenological mindset according to which some basic semantic body defines human conscience outlines and its cognitive orientation borders in the information sphere.

Information control in modern communication systems is carried out mainly over processes fixed in computer technologies (input, storage, processing, search, information presentation) in functionally oriented and object-oriented technologies. In engineering telecommunications and information, systems are considered as a socio-technical object treated separately in its essence from individual consciousness and human behavior. Based on this automated information systems are designed and implemented (e.g. science and technical information automated systems, legal reference, information search engines) and management automated systems.

We tried to research the interdependency of infosphere and mental experience in communication practice where social control over cognitive orientation at the subconscious level is realized. Such an approach allows stating a matrix origin of implicit control in the society where a free choice of orientation becomes possible in certain semantic limits of a media sphere.

To research the resources of communication language sphere influence on a human mental activity socio-cognitive approach becomes a peculiar appropriate method within the topological approach. Also, within the socio-cognitive approach, human semantic orientations in the cultural infosphere are identified by discourse and norm that can be viewed as a resource of implicit manipulation. Discourse functions as a matrix follow the norm subconsciously as M. Foucault stated (Foucault: 1984, p. 105).

The psycho-techniques to form mental experience and discourse formation technologies in framing communication practices have been analyzed as management matrix resources.

# 2. RESULTS

Personality life orientations in the network society are realized in hieratically organized information spheres and correlate with cognitive orientations in the global semantic network that is associated with the communication infosphere. Semantic spheres orientations at different levels require certain perception features and information processing. In particular, three different infosphere persuasion channels to influence personality are identified (Floridi: 2011, pp. 549-550) perceptive (similar to physical contact via perceptions); cognitive (persuasion channel via semantic structures, knowledge components-frames); reflexive (information perception channel connected with values and limitations knowledge or understanding limits).

The Interactive management model, especially employed within a phenomenological approach to social actions, stresses the directed influence of the information sphere. A human is constantly absorbed into the complicated information sphere. The semantic field directing its mental and physical activity is formed by social communication.

Information resources to control mental activity:

A human is naturally incorporated into society's infosphere. His or her consciousness and subconsciousness function as an open complicated system that is capable of valuable information perception, remembrance, processing, extraction and application for in his or her own needs. Unlike simple physical systems like gas mass in which interactions subject to calculations based on the physical laws prevail, the behavior of complex open systems is based on the non-physical oriented interactions possessing an information character. The priority of the oriented interactions is characteristic of any limited system interacting with the habitat (Maturana & Poerkson: 2004, p. 208). In this case the system life world is represented by the information spheres that define the potential space of action choices and possible options to predict actions for successful adaptation. The lifeworld rationing principle divides the environment as a possible living space and life world of the system itself. Possible options to adapt to the living space identify the system information characteristics.

Within this context, the conditions for human social adaptation are determined by the necessity of constant value and semantic orientation directing its intellectual and emotional reaction. Any action in the language cultural sphere is informational charged and specified by a semantic context. Knowledge in a context form exists in the society independently from humans; similarly, it is directly connected with each individual by some form presupposing the subject's ability to perceive semantic meanings. For example, the etiquette form of any ritual functions as a communication factor directing attention and signs understanding within a certain context enabling a human adequately orientating in a situation.

Mental activity in the information evaluation process is based on a social life technology that is natural for a human in which indirect communication techniques control semantic orientations at different levels of a mental structure. The mental activity control resources are connected with information perception as namely

semantic meanings trigger a psycho-physiological process of a responsive reaction. The communication situation determines the cognitive orientation vector and directs attention and understanding of signs and words meanings. According to the theory of the second signal system to organize a higher nervous function (Saveliev: 2018), subconscious sense-perception triggers a set of psychosomatic reactions in a human body.

Mental activity control at a subconscious level of sense perception in the communication practice correlates with automated response in the needed direction or indirect understanding and submission. B.F. Porshnev defined this technique as interdiction as the reason stimulating the indirect reaction is somebody else's will and not a physical reason or a biological instinct (Porshnev: 2007). Mental activity functioning as reasoning correlates with a reflection level when perceiving messages. Understanding, in this case, correlates with sign interpretation and sign signification.

In any human society, the mental activity control is carried out in any communication situation in which sign means to deliver messages are used. Senses perception in symbolic forms occurs intuitively but to extend senses decoding of a sign the knowledge of pragmatic criteria to provide the required level of its application in life practice is required. The converted forms (fetish and fictions) exist objectively in the society (e.g., money that substitutes not only a product but also a status, and the notion of wealth). Within the network e-culture, new fictions are produced and replicated (simulacra).

Mental experience formation within an emotional pressure technique:

Emotional pressure is directed to activate subconscious pre-orientation of situations and further events perception. Non-reflexive impact techniques mean that implicit control over mental activity provides the impulsive reaction mechanism via an emotional infection. To activate this or that impulsive behavioral reaction of an individual different image, memes and rhythms are used. In this case, the dominant psych complex is activated to trigger an automated programmed emotional reaction. The psycho-technique to form mental experience, in this case, is oriented at unplanned sense acquisition as a subconscious movement that is based on imprinting mechanisms, needs objectification and fixing an orientation. This strategy is similar to instinct as the implicit necessity finds intuitively its object. Love at first sight, alcohol abuse, smoking habit, drug addiction, and computer games addiction and gambling can exemplify this. However, this is based on the implicit knowledge in the form of sign systems and evaluation criteria that trigger some scheme of a thought direction (a thought frame) to understand situations intuitively.

Mental experience formation in framing psycho-techniques:

At the level of reflexive activity implicit control over a mental activity provides a semantic context formatting. The implicit control over the pre-knowledge and prediction sphere is realized in discursive techniques. The Semantic sphere of mental experience formation is connected in this case with a cognitive orientation of a subject in the information field and based on the context knowledge realization within framing techniques.

Psychologically the following strategies to generate sense are identified to illustrate this technique in the person's self-identification. Sense inducement means cognitive orientation to provide meaning to initially meaningless activity and identifying one's own targets. Identification with a certain group correlates with the subconscious acceptance of certain life principles and a social role. By the moment of self-realization as a limited member of the society (a legally entitled person, an American, a male or a warrior etc.), a human has already differentiated its meaningful. Within the strategy of sense signification, a key role is reserved for realizing a value orientation to define the limits of a person's life path. The deliberate choice of faith and religion can exemplify this (in God, communism, science, progress or evil).

The discursive technique to manipulate massive consciousness:

Manipulation resources of the subject's cognitive orientation in the infosphere are identified within general norms of statements and generalizations. In speech communication theory behavioral norm of understanding regulates targeted human behavior, and indistinct contextual forms function to control mental experience formation. The semantic framework of language and a person's mental activity exists implicitly in

the society. Those things that are understood from the context not expressed. Context and discourse creation process during language acquisition make up a necessary condition as a social adaptation and associated with the psychical norm of human individual development.

Cognitive schemes, images, mental models act as the "formatter" for semantic horizons within framing practice management functions to control mental activity. Thus, manipulating mass consciousness by means of a political technology can be implicit in some cognitive primitive. Short, precise and available to anyone sense formulas have a powerful stimulus to activate mass actions. The formula that has become a symbol of any social transformations in the past, i.e. "Liberty – Equality - Brotherhood", can exemplify this.

Modern techniques of public communications use framing as a media technology to create posts and blogs and identifying the theme for a semantic field, introducing «agenda», producing fake information. Directed public consciousness change from a newsworthy event to constructing a new information informational field, a new agenda and values change and subjects cognitive orientation in a public space that is presented in the Overton window technique.

The framing technique within the neuron-marketing technology makes the ways to inducing a person to make certain actions in the service market. The information representation format is oriented at predicted emotional and semantic aspirations of an average consumer. Mild neuron-marketing presupposes active application knowledge from psychology and physic psychology and technology to construct brands, advertising materials development, communications planning, and their contextual filling. Certain neuron-technology perspectives in educational practice are connected with the intensive development of electronic environments enabling new educational forms and successful intellectual and professional network activity (Ababkova & Leont'eva: 2016).

Framing technique to construct network blogs presupposes attention control when receiving information. Neuron-marketing success to realize certain techniques of matrix control over subconscious orientation and the unconscious reaction of a consumer is based on mental activity control by using a semantic resource of the cognitive primitive that is limited by common sense restrains. Subconscious orientations of common sense direct intuitive decision making under conditions of uncertainty. The subconscious mental level makes up 90% of all made decisions, while a conscious part adjusts to the first impression of the subconscious mental part. Thus, the first impression and emotional reaction are crucial for presenting information.

As a modern user is informationally overloaded, orientation on a cognitive primitive enables forming interesting and approachable content taking into account the time economy during orienting a user in the network environment. Within the indirect computer, communication users scan pages quickly and read attentively if an article is interesting. Considering cognitive subconscious human reactions to attract the target auditorium creates blog advantages in network interactions and campaign promotion. This corresponds to the neuron-technology target to project consumer's expectations and his/her predicted choice orientation.

Implicit techniques to manipulate a person implied in the communication infosphere are a central issue of social technology. To solve this problem a framing technique is based on the fact that a person's life world semantics is limited by a notions cycle the genesis of which cannot be seen in a topical situation. Social forms (objects and language) program a set of human reactions similar to a code becoming a sense generation source in an individual mind. The basic framing technique in social and communicative practice functions in the mode of comparing the non-personal symbolism of the infosphere with the structure of cognitive mental experience.

Mental activity control in political techniques:

To manage practice power must consider a person's mental activity dynamics that is characterized by volatile and complicated local networks and does not limit by verbalized knowledge to be constructed according to logic norms regulating a semantic connection between imaginative and language forms. Each civilization has its cultural code forming information environment layers and directing personal sense perception in social adaptation.

Within the modern liberal approach, political management supposes power acknowledgment by the

mass population. The issue of control, in this case, is connected with an influence on a person's consciousness. Political technology to influence massive consciousness is oriented at implicit correlation with norms and definite freedom of choice when evaluating events. In this context, the power legitimacy acknowledgment is determined by opposite freedom vectors and the necessary subject's cognitive orientation.

Principle's declaration of deliberative democracy stresses the regulating role of general discourse and moral norm in a political process (Habermas: 2010). Although the resource of content general value to control consciousness becomes doubtful in the network culture. Virtual media sphere producing fakes and fictions reduces transmitted message feasibility. Subject's trust and society's trust in printed information and media content become doubtful. The action of accepting messages content is based on activating an intellectual action of judgment and emotional perception of message value for this subject.

The intellectual mechanisms to accept genuine messages fixes potential semantic limits and the possibility of understanding. It is impossible to state content volubility. Within the network environment understanding adequacy is complicated by spreading deceit and self-deceit technology. Electronic communication means produce fake orientations substituting objective criteria of reality that are characteristic of the conventional common sense. Fashion clichés, templates and faith symbols implied into massive consciousness despite its absurdity have common value for a significant number of people. The emotional mechanism to accept message sense acts at subconscious orientation level as faith in the forms of a set of vague criteria to differentiate real and unreal issues, truth and fakes, justice and injustice, usefulness and beauty, etc. (Dubrovskiy: 2011).

Both mechanisms of mental activity in the infosphere with complex cognitive and communicative structures do not guarantee the control over mass consciousness in the act of accepting and acknowledging power resulting in deep assurance incorrectness of a chosen position and trust in governments.

The modern political technology of «mild power» presupposes predicting possible models of behavior over a manipulated subject as well as pressure factors of the external environment, i.e. natural and geographical conditions, an external political and socio-economical situation and a socio-cultural environment. Flexible power is based mainly on three resources: its culture, political values, and legitimacy of external policy that possess moral authority.

Implicit influence by means of implementing perception orientations correlates with manipulating mass consciousness. In this case, a mass subject does not realize that he or she is pressed as there is no obvious person who gives orders and no order itself.

The political technology rejecting explicit manipulation over an individual mind of citizens is represented by a presumption of individual freedom of choice. The model of social control that does not have a controlling and controlled people becomes an ideal model. The functions of natural regulation over the society carry symbolic (language and discursive) structures forming special semantic networks in the social environment. Having semantic orientations at his or her disposal a subject makes a decision how he or she should live or act. Mental activity in the process of personal self-identification in this or that political situation remains an opaque «black box» even under the conditions of complete information openness of network society. The political system remaining the control administrative resources control over the public sphere is deprived of power in certain sense as within both conventional and information society it becomes involved in the semantics cultural codes semantics based on which people and institutions organize lives and make decisions.

Control resources over mental activity in matrix management are connected with information transfer influencing worldview (or a situation) available with an object. To generate controlling information in a matrix model correlates with a volition intention, and behavioral reactions are determined by an actual stimulus or previous reasons that have an internal vector aligning targeted orientations and reactions according to the basic values system.

### CONCLUSION

A topological approach to the control resources of mental activity, in our opinion, turns out to be the most adequate in complex dynamic conditions of modern society. The high complexity level of a global network makes total control over socio-technical and political system elements impossible as well as total control over the subject's cognitive orientation in the virtual, information and semantic field. The declaration of individual freedom within a political orientation transforms into the aspiration to control individual mental activity totally. The implicit social control is carried out by means background knowledge that functions as a resource of matrix control in a seemingly natural, at first sight, community organization.

Control resources of mental activity in framing techniques are connected with manipulating background context knowledge and discourse generation directing understanding and real action. To form context knowledge in a mental personal experience is realized based on emotional-instinctive and emotional-intellectual perception mechanisms of semantic structures existing in the socio-cultural environment. Activating and understanding actions context stimulated by communicative relations appears to be earlier than thoughtful regulation and develop on the archetypal base of collective experience. Discourse generation is connected with a subject's cognitive orientation in the information sphere semantics. Existential senses generation is based on intellectual activity in contemplations, understanding and evaluation procedures. Both schemes to generate life context are present and perplexed in real life.

The resource analysis to control mental activity in the social communication infosphere results in concluding that the free choice principle in the liberal political orientation does not eliminate a potential possibility of implicit manipulation over people's consciousness when employing the matrix management method. The modern technology of mild power with anonymous social management supposes that the necessary statistical calculation of possible behavioral models and predictions of environment factors emphasize the permitted limits and social orientations during the definite idol's epoch that create the implicit social control matrix.

The intellectual and emotional acceptance of cultural senses as well as generally valid political orientations and positions act in the society as an implicit resource of matrix control. On the other hand, the directed information influence as an important resource of the political technology cannot guarantee the total control over the public sphere.

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**O.D SHIPUNOVA:** Olga Dmitrievna Shipunova. Doctor of Philosophy Sciences, Professor of Peter the Great St. Petersburg Polytechnic University, Department of Social Sciences. Member of the Editorial Board of Saint Petersburg State Polytechnic Journal. Humanities and Social Sciences. Editor of Proceedings of the International Conference Communicative Strategies of Information Society (CSIS 2018) in Series: Advances in Social Science. Has published works on social Philosophy, Theory of communication, Philosophy of mind, Theory of knowledge.

**L.V MUREYKO:** Larisa V. Mureyko. Doctor in Philosophy Sciences, Associate Professor of Emperor Alexander I St. Petersburg State Transport University. He lectures on philosophy, history, and philosophy of science for students and postgraduates of transport University. Graduate of doctoral studies in philosophy at the Russian Pedagogical University. Has published works on the philosophy of the unconscious and the epistemology of mass consciousness.

**A.Y KOZHURIN:** Anton Y. Kozhurin. Doctor of Philosophy Sciences, Professor of Russian Pedagogical University. Specialist in the history of Russian philosophy, social philosophy, history and philosophy of science. He teaches a number of courses in these disciplines for students and postgraduates of the Russian Pedagogical University. The author of a number of works devoted to the problems of history and philosophy of science, social philosophy, Russian philosophy and culture of the XIX-XX centuries.

**IV KOLOMEYZEV:** Ivan V. Kolomeyzev. Assistant of the Department of Social Sciences of Peter the Great St. Petersburg Polytechnic University. Graduate of graduate school in Philosophy. Member of the Organizing Committee of the scientific and theoretical conference "Communicative strategies of the information society" (2010-2019). Research area: management problems in social and technical systems. He has publications on philosophical aspects of communicative practices and social management.

**O.N KOSTERINA:** Olga N. Kosterina. Doctor of Philosophy in Philological Sciences, Associate Professor of Peter the Great St. Petersburg Polytechnic University, Department of Linguistics and Intercultural Communication, has been a legal linguistics text expert at the Laboratory of Linguistic Text Analysis. Has published works on Social Linguistics, Theory of communication, Text Analysis, Forensic Linguistics, Academic Discourse Analysis.