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THE APPLIED DEVELOPMENTS DIRECTION  
“COGNITIVE MODELING IN THE HUMANITARIAN SCIENCES,  
ART AND CREATIVITY” (“NGNOT”)

OF “SRI "SFA CMT" OF "RA(N)S" N. A. VENIAMINOV V.N.” (PART 2)

The developed “The applied developments direction  
"Cognitive modeling in the humanitarian sciences, art and creativity” (“NGNOT”)  
treats to the applied developments divisions  
of “The scientific-research institute "System and financial analysis based on  
cognitive modeling technology" of "RA(N)S" named after Veniaminov V.N.”  
 (“SRI "SFA CMT" of "RA(N)S" n. a. Veniaminov V.N.” – SRI) as the first SRI  
in the structure of “SIO "Academy of cognitive natural sciences” (“SIO "ACNS”)  
and the add. component of the system of science and education of the modern country  
for the creation, distribution and use of the main and derivative  
scientific results of the cognitive modeling technology (CMT) (www.vetrovan.(spb.)ru)  
[see the applied developments directions and scientific-researches laboratories of SRI]:  
1) it is executed by the principle of “administrative-economy submission”;  
2) works in the several main directions, which allow to provide  
the development of the applied main and derivative scientific results  
(my second report on SRW from 2006-2008(9) y. was submitted  
to “SPbSETU "LETI” and “The Government of RF”  
for the translation, carrying out of int. action and receiving of “The Nobel prize”);  
3) includes the several various main divisions:  
III. “The scientific-researches laboratory  
"Applications of the problems of (cognitive) psychology,  
education, science and support of young scientists  
(the programs of grants and others)” (“SPOP MU”) (\*)  
*[the applied developments in the area  
“Applications of national education and pedagogics”* –  
usage of theory of general pedagogics,  
usage of theory of history of education and pedagogics,  
usage of theory of personnels, usage of theory of the systems of education,  
usage of theory of preschool education,  
usage of theory of preschool pedagogics,  
usage of theory of general-educational (comprehensive) school,  
usage of theory of pedagogics of general-educational (comprehensive) school,  
usage of theory of out-of-school (additional) education and training,  
usage of theory of out-of-school pedagogics,  
usage of theory of special (correctional) schools,  
usage of theory of defectology,  
usage of theory of primary professional-technical education,  
usage of theory of pedagogics of professional school,  
usage of theory of average professional education,  
usage of theory of pedagogics of average professional education,  
usage of theory of higher professional education,  
usage of theory of pedagogics of higher professional school,  
usage of theory of education of adults, usage of theory of improvement of professional skills,  
usage of theory of self-education,  
usage of theory of family training, theory of family pedagogics,  
usage of theory of the specialized branches of pedagogics,  
usage of theory of the technical means of training and learning equipment,  
usage of theory of national education and pedagogics in the separate countries,  
usage of theory of the cognitive modeling technology  
in the applications of national education and pedagogics;

*the applied developments in the area “Applications of (cognitive) psychology” (\*)* – usage of theory of general psychology, usage of theory of psychology of development, usage of theory of age psychology, usage of theory of comparative psychology, usage of theory of social psychology, usage of theory of applied psychology, usage of theory of the cognitive modeling technology in the applications of (cognitive) psychology, usage of theory of the modified stratified-step model of processing (cognitive psychology) of the content of information fragments, usage of theoretical bases of cognitive psychology and the cognitive modeling technology, usage of theoretical bases of the parametrical cognitive models block for the system analysis of the information-educational environments (the cognitive models of the subject of training and the means of training), usage of theory of the ways of representation of the structure of the cognitive models and difficult problem environments: the formal classical of the 0<sup>th</sup> generation (the logical and production models), the nonformal classical of the 0<sup>th</sup> generation (the semantic network, the frame network and ontology), the formal new of the 0<sup>th</sup> generation (the calculus of theory of sets and corteges on domains and the innovative calculus of theory of sets and graphs), the nonformal new of the 0<sup>th</sup> generation (the multi-level structural scheme and the multi-level encapsulated pyramids combining theory of graphs and theory of sets), the flat of the 1<sup>st</sup> generation (the cognitive circle and the cognitive disc), the volumetric of the 1<sup>st</sup> generation (the cognitive cylinder, the cognitive cone and the cognitive sphere), the flat and volumetric of the 2<sup>nd</sup> generation (the one-, two-, three-, four-, five- and more cognitive circle, cognitive disc, cognitive cylinder, cognitive cone and cognitive sphere), the hybrid of the 3<sup>rd</sup> generation (the combinations of the existing cognitive models), usage of theory of the adaptive automation means of the information-educational environment (the basic and applied diagnostic module, the electronic textbook, the laboratory practical work, the electronic dean, the electronic library and others), usage of theory of the technical means of support of the adaptive information interaction (the adaptive representation of sequence of information fragments processor, the question-answers structures sequence processing processor, the linguistic processor and other processors), usage of theory of the technical means of support of the complex analysis (the automation means of formation and research of the psychological parameters of the cognitive model in the view of the cognitive circle, cognitive disc, cognitive cylinder, cognitive cone, cognitive sphere, one-, two-, three-, four-, five- and more cognitive sphere and others); *the applied developments in the area “Applications of the grants of “RFBR”, “RHSF” and other organizations”* – usage of theory of the general details of the grants of “The Russian fund of basic researches”, “The Russian humanitarian scientific fund” and other organizations, usage of the theoretical-methodological basis of grants, usage of theory of reception, distribution and use of the grants of “RFBR”, “RHSF” and other grant-formation organizations, usage of theory of the cognitive modeling technology in the applications of the grants of “RFBR”, “RHSF” and other organizations].

IV. “The scientific-researches laboratory “Applications of the innovations of the project “The Russian encyclopedias”, philosophy of science, technics and technology on the branches of knowledge” (“SRE”) the applied developments in the area “Applications of encyclopedias on natural and exact sciences” – usage of theory of encyclopedias on mathematics, cybernetics, physics, mechanics, chemistry, biology, geodesy and cartography, geo-physics, geology, geography, astronomy, usage of theory of the general and complex problems of natural and exact sciences, usage of theory of the cognitive modeling technology in the applications of encyclopedias on natural and exact sciences; the applied developments in the area “Applications of encyclopedias on social sciences” – usage of theory of encyclopedias on social sciences as a whole, usage of theory of encyclopedias on philosophy, history and historical sciences, sociology, demography, economics and economic sciences, state, law and jurisprudential sciences, politics and political sciences, science-study, culture and cultural-science, national education and pedagogics, psychology, science of language, literature and study of literature, oral national creativity, art and art-science, mass communication and journalism, the mass media means, informatics, religion and atheism, the complex studying of the separate countries and regions, the complex problems of social sciences, usage of theory of the cognitive modeling technology in the encyclopedias on social sciences; the applied developments in the area “Applications of encyclopedias on technical, applied and economic sciences” – usage of theory of encyclopedias on power-engineering, electrical-engineering, electronics, radio-engineering, connection, automatics, computer engineering, mining, metallurgy, mechanical-engineering, nuclear technics, instrument-making, polygraphy, reprography, photo-cinema-technics, chemical technology and chemical industry, bio-technology, light industry, food-processing industry, forest and wood-processing industry, construction and architecture, agriculture and forestry economy, fish economy and aqua-culture, water economy, internal trade, tourist-excursion service, external trade, transport, housing-communal economy, housekeeping, consumer services, medicine and public-health-services, physical training and sport, military science, the other branches of economics, usage of theory of the cognitive modeling technology in the applications of encyclopedias on technical, applied and economic sciences; the applied developments in the area “Applications of encyclopedias on the general and complex problems of technical and applied sciences and the branches of national economy” – usage of theory of encyclopedias on organization and management, statistics, standardization, patent business, invention and rationalization, labor safety, environment preservation and ecology of person, space researches, metrology, usage of theory of the cognitive modeling technology in the applications of encyclopedias on the general and complex problems of technical and applied sciences and the branches of national economy; the applied developments in the area “Applications of philosophy of science, technics and technology” – usage of theory of the general problems of modern philosophy of science, technics and technology, usage of theory of the general-philosophical problems, usage of theory of logic of philosophy and methodology of science, usage of theory of social philosophy, usage of theory of ethics, usage of theory of aesthetics, usage of theory of philosophy of religion and atheism, usage of theory of history of philosophy, usage of theory of the cognitive modeling technology in the applications of philosophy of science, technics and technology].

The applied developments directions and scientific-researches laboratories of SRI allow to develop the main and derivative scientific results of CMT.